



# City of Kenora

## Committee of the Whole Agenda

Tuesday, March 14, 2017

**8:00 a.m.**

**\*NOTE this meeting will start at 8:00 a.m. with a presentation and regular Committee of the Whole will follow at 9:00 a.m.**

**City Hall Council Chambers**

### **A. Public Information Notices**

**As required under Notice By-law #144 -2007, the public is advised of Council's intention to adopt the following at its March 21, 2017 meeting:-**

- Council intends to adopt its 2017 Municipal Capital and Unusual Spending Budget
- Council will authorize the use of alternative voting methods including internet and telephone voting for the 2018 municipal election
- Council will commit a grant to the Kenora Airport Authority of \$500,000 to be funded through the City's Contingency Reserve, payable in equal instalments in the years 2017 and 2018
- Council will guarantee external financing for the Kenora Airport Authority up to a maximum of \$1 million with a maximum term of thirteen years, with no more than the first three years being on an interest only basis, and thereafter amortized over a 10 year period
- Council will approve an amendment to the 2016 operating budget to appropriate from the City's Contingency Reserve to fund the incremental wage and benefit costs for 2016 negotiated settlement with CUPE Local 191
- Council will authorize a load restriction of a 5 tonne Gross Vehicle Weight for the Seventh Avenue Bridge effective immediately
- Council will amend the Tariff of Fees and Charges bylaw, Schedule D, to reflect the current water outlet card fees to reflect the present \$10.00 deposit for Water Dispensing Unit Customer cards be replaced with a \$25.00 one-time charge for new Customers and a \$15.00 one-time charge for existing Customers, in consideration that existing card holders already have a \$10.00 deposit on account with the City

### **B. Declaration of Pecuniary Interest & the General Nature Thereof**

**1) On Today's Agenda**

**2) From a Meeting at which a Member was not in Attendance.**

### **C. Confirmation of Previous Committee Minutes**

**Motion:**

That the Minutes from the last regular Committee of the Whole Meeting held February 14, 2017 and Special Committee of the Whole meeting held February 21 be confirmed as written and filed.

## D. Deputations/Presentations

- 8:00 a.m. Asset Management Plan Presentation
- 9:00 a.m. Irene McCuaig/Sue Straight – Lake of the Woods Arts Community

## E. Reports:

### 1. Corporate Services & Strategic Initiatives

Item Subject	Pages
--------------	-------

- |  |  |
|--|--|
| 1.1. 2016 Q4 Investments                                     |  |
| 1.2. 2016 Strategic Plan Progress Report                     |  |
| 1.3. 2017 Updated Capital Budget Approval                    |  |
| 1.4. 2018 Election Options                                   |  |
| 1.5. Kenora Airport Authority Terminal Redevelopment Support |  |
| 1.6. Asset Management Plan                                   |  |
| 1.7. CUPE Local 191 Memorandum of Agreement                  |  |
| 1.8. Mount Evergreen Ski Club Sponsorship Support            |  |

### 2. Fire & Emergency Services

Item Subject	Pages
--------------	-------

- |                |  |
|----------------|--|
| 2.1 No Reports |  |
|----------------|--|

### 3. Operations & Infrastructure

Item Subject	Pages
--------------	-------

- |   |  |
|---|--|
| 3.1 2016 Kenora Drinking Water System Summary |  |
| 3.2 Seventh Avenue Bridge Weight Restriction  |  |
| 3.3 Water Dispensing Units Replacement        |  |

### 4. Community & Development Services

Item Subject	Pages
--------------	-------

- |  |  |
|--|--|
| 4.1 Harbourtown BIZ Free one Day Tent Rental MOU Agreement |  |
|--|--|

#### Other:

#### Next Regular Committee of the Whole Meeting

- Tuesday, April 11, 2017
- Special Council Meeting at 12:00 noon, March 14 for adoption of the CIP bylaws

**Motion - Adjourn to Closed Meeting:**

That this meeting now be adjourned to a closed session at \_\_\_\_\_ a.m.; and further

That pursuant to Section 239 of the Municipal Act, 2001, as amended, authorization is hereby given for Committee to move into a Closed Session to discuss items pertaining to the following: -

- i) Personal Matter about an Identifiable Individual (1 matter)**
- ii) Educating and Training Members of Council (1 matter)**
- iii) Labour Relations (1 matter)**

**Adjournment.**

# AMP 2016

[www.publicsectordigest.com](http://www.publicsectordigest.com)

The 2016 Asset Management Plan for the  
**City of Kenora**



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# Executive Summary

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Infrastructure is inextricably linked to the economic, social and environmental advancement of a community. Municipalities own and manage nearly 60% of the public infrastructure stock in Canada. As analyzed in this asset management plan (AMP), the City of Kenora's infrastructure portfolio comprises ten distinct infrastructure categories: road network, bridges & culverts, buildings, storm, water, waste water, solid waste, land improvements, fleet, and machinery & equipment. The asset classes analyzed in this asset management plan for the municipality had a total 2016 valuation of \$528 million, of which the water system comprised 21%, followed by bridges & culverts at 20%.

The municipality has made consistent investments in its infrastructure throughout the last six decades, with major initial investments in bridges & culverts occurring in the 1950s and 1970s. Investments in waste water and water, totaling more than \$41 million, occurred in the mid-1970s; additional investments in the two classes, totaling \$32 million, followed between 1980-1984. Between 2000-2004, the period of the largest investments, expenditures totaled more than \$74 million, allocated primarily to roads (\$21 million), water (\$14 million), buildings (\$13 million) and bridges & culverts (\$12 million). Since 2010, expenditures have totaled \$57 million.

Strategic asset management is critical in extracting the highest total value from public assets at the lowest lifecycle cost. This AMP, the municipality's second following the completion of its first edition in 2013, details the state of infrastructure of the municipality's service areas and provides asset management and financial strategies designed to facilitate its pursuit of developing an advanced asset management program and mitigate long-term funding gaps.

Based on 2016 replacement cost, and a blend of assessment and age-based data, while nearly 60% of assets, are in good to very good condition, 26%, with a valuation of \$134 million, are in poor to very poor condition. Nearly 80% of the assets analyzed in this AMP have at least 10 years of useful life remaining. However, 11%, with a valuation of \$57 million, remain in operation beyond their established useful life. An additional 3%, with a valuation of \$17 million, will reach the end of their useful life within the next five years.

In order for an AMP to be effectively put into action, it must be integrated with financial planning and long-term budgeting. The development of a comprehensive financial plan will allow the municipality to identify the financial resources required for sustainable asset management based on existing asset inventories, desired levels of service, and projected growth requirements.

The average annual investment requirement for tax funded categories is \$11,470,000. Annual revenue currently allocated to these assets for capital purposes is \$4,684,000, leaving an annual deficit of \$6,786,000. To put it another way, these infrastructure categories are currently funded at 41% of their long-term requirements. In 2016, the municipality has annual tax revenues of \$20,500,000. Our strategy includes full funding being achieved over 20 years by:

- when realized, reallocating the debt cost reductions of \$633,000 to the infrastructure deficit as outlined above.
- increasing tax revenues by 1.3% each year for the next 20 years solely for the purpose of phasing in full funding to the tax funded asset classes covered in this AMP.

- allocating the current gas tax and OCIF revenue as well as scheduled increases to the infrastructure deficit as they occur.
- increasing existing and future infrastructure budgets by the applicable inflation index on an annual basis in addition to the deficit phase-in.

The average annual investment requirement for waste water services, water services and solid waste is \$3,607,000. Annual revenue currently allocated to these assets for capital purposes is \$2,433,000 leaving an annual deficit of \$1,174,000. To put it another way, these infrastructure categories are currently funded at 68% of their long-term requirements.

In 2016, Kenora has annual waste water revenues of \$3,887,000, annual water revenues of \$3,887,000 and annual solid waste revenues of \$2,070,000. For waste water and water services, we recommend a 5-year phase-in period for full funding which involves:

- when realized, reallocating the debt cost reductions of \$91,000 for water services to the applicable infrastructure deficit.
- increasing rate revenues by 4.3% for waste water services and 2.2% for water services each year for the next 5 years solely for the purpose of phasing in full funding to rate funded assets.
- increasing existing and future infrastructure budgets by the applicable inflation index on an annual basis in addition to the deficit phase-in.

For solid waste, there is currently a surplus, however prior to adjusting rates, it is recommended that condition data is obtained to accurately determine future capital and operating needs. Additionally, future landfill replacement costs must be considered, which are currently not covered in this AMP.

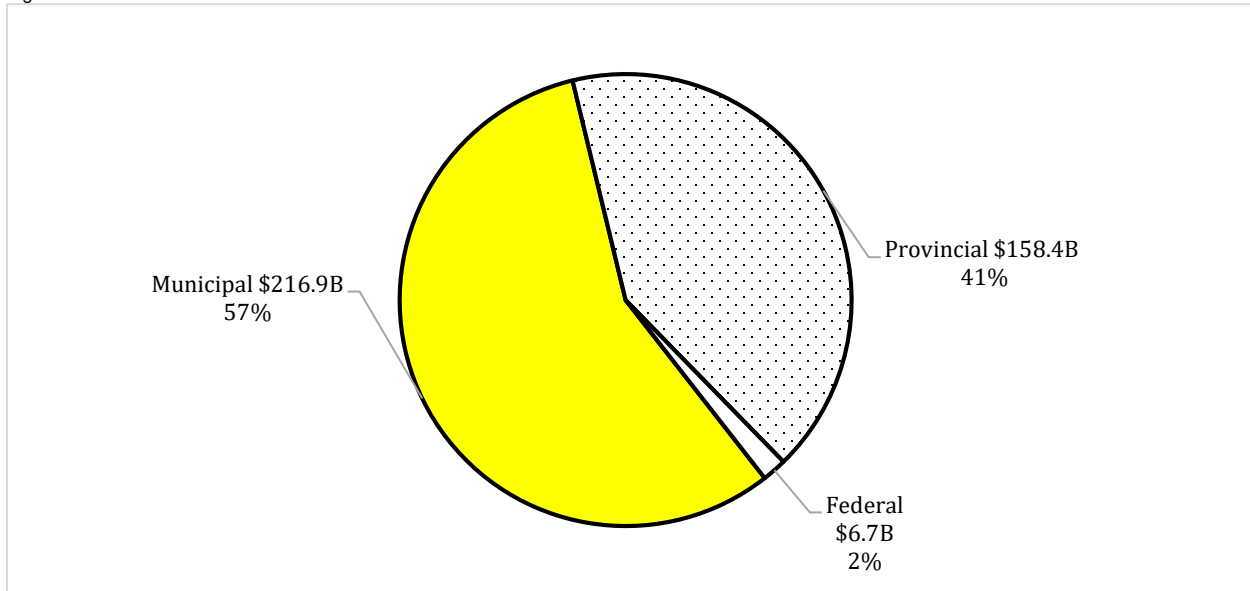
Although our financial strategies allow the municipalities to meet its long-term funding requirements and reach fiscal sustainability, injection of additional revenues will be required to mitigate existing infrastructure backlogs.

A critical aspect of this asset management plan is the level of confidence the municipality has in the data used to develop the state of the infrastructure and form the appropriate financial strategies. The municipality has indicated a very high degree of confidence in the accuracy, validity and completeness of the asset data for all categories analyzed in this asset management plan.

# I. Introduction & Context

Across Canada, municipal share of public infrastructure increased from 22% in 1955 to nearly 60% in 2013. The federal government's share of critical infrastructure stock, including roads, water and wastewater, declined by nearly 80% in value since 1963.<sup>1</sup>

Figure 1 Distribution of Net Stock of Core Public Infrastructure



Ontario's municipalities own more of the province's infrastructure assets than both the provincial and federal government. The asset portfolios managed by Ontario's municipalities are also highly diverse. The total replacement cost of capital assets analyzed in this document. The municipality relies on these assets to provide residents, businesses, employees and visitors with safe access to important services, such as transportation, recreation, culture, economic development and much more. As such, it is critical that the municipality manage these assets optimally in order to produce the highest total value for taxpayers. This asset management plan, (AMP) will assist the municipality in the pursuit of judicious asset management for its capital assets.

<sup>1</sup> Larry Miller, Updating Infrastructure In Canada: An Examination of Needs And Investments Report of the Standing Committee on Transport, Infrastructure and Communities, June 2015

## II. Asset Management

Asset management can be best defined as an integrated business approach within an organization with the aim to minimize the lifecycle costs of owning, operating, and maintaining assets, at an acceptable level of risk, while continuously delivering established levels of service for present and future customers. It includes the planning, design, construction, operation and maintenance of infrastructure used to provide services. By implementing asset management processes, infrastructure needs can be prioritized over time, while ensuring timely investments to minimize repair and rehabilitation costs and maintain municipal assets.

Table 1 Objectives of Asset Management

Inventory	Capture all asset types, inventories and historical data.
Current Valuation	Calculate current condition ratings and replacement values.
Life Cycle Analysis	Identify Maintenance and Renewal Strategies & Life Cycle Costs.
Service Level Targets	Define measurable Levels of Service Targets
Risk & Prioritization	Integrates all asset classes through risk and prioritization strategies.
Sustainable Financing	Identify sustainable Financing Strategies for all asset classes.
Continuous Processes	Provide continuous processes to ensure asset information is kept current and accurate.
Decision Making & Transparency	Integrate asset management information into all corporate purchases, acquisitions and assumptions.
Monitoring & Reporting	At defined intervals, assess the assets and report on progress and performance.



# 1. Overarching Principles

The Institute of Asset Management (IAM) recommends the adoption of seven key principles for a sustainable asset management program. According to IAM, asset management must be:<sup>2</sup>

Table 2 Principles of Asset Management

Holistic	Asset management must be cross-disciplinary, total value focused
Systematic	Rigorously applied in a structured management system
Systemic	Looking at assets in their systems context, again for net, total value
Risk-based	Incorporating risk appropriately into all decision-making
Optimal	Seeking the best compromise between conflicting objectives, such as costs versus performance versus risks etc.
Sustainable	Plans must deliver optimal asset life cycles, ongoing systems performance, environmental and other long term consequences.
Integrated	At the heart of good asset management lies the need to be joined-up. The total jigsaw puzzle needs to work as a whole - and this is not just the sum of the parts.

<sup>2</sup> "Key Principles", The Institute of Asset Management, [www.iam.org](http://www.iam.org)

## III. AMP Objectives and Content

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This AMP is one component of the City of Kenora's overarching corporate strategy. It was developed to support the municipality's vision for its asset management practice and programs. It provides key asset attribute data, including current composition of the municipality's infrastructure portfolio, inventory, useful life etc., summarizes the physical health of the capital assets, assess the municipality's current capital spending framework, and outlines financial strategies to achieve fiscal sustainability in the long-term while reducing and eventually eliminating funding gaps.

As with the first edition of the municipality's asset management plan in 2013, this AMP is developed in accordance with provincial standards and guidelines, and new requirements under the federal Gas Tax Fund stipulating the inclusion of all eligible asset classes. Previously, only core infrastructure categories were analyzed. The following asset classes are analysed in this document: road network; bridges & culverts; buildings, water network, waste water network, storm sewer, solid waste, machinery & equipment, vehicles, and land improvements.

This AMP includes a detailed discussion of the state of local infrastructure and assets for each class; outlines industry standards levels of service and key performance indicators (KPIs); outlines asset management renewal strategy for major infrastructure; and provides financial strategy to mitigate funding shortfalls.



## IV. Data and Methodology

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The municipality's dataset for the asset classes analyzed in this AMP are maintained in PSD's CityWide® Tangible Assets module. This dataset includes key asset attributes and PSAB 3150 data, including historical costs, in-service dates, field inspection data (as available), asset health, replacement costs, etc.

### 1. Condition Data

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Municipalities implement a straight-line amortization schedule approach to depreciate their capital assets. In general, this approach may not be reflective of an asset's actual condition and the true nature of its deterioration, which tends to accelerate toward the end of the asset's lifecycle. However, it is a useful approximation in the absence of standardized decay models and actual field condition data and can provide a benchmark for future requirements. We analyze each asset individually; therefore, while deficiencies may be present at the individual level, imprecisions are minimized at the asset-class level as the data is aggregated.

As available, actual field condition data was used to make recommendations more precise. The value of condition data cannot be overstated as they provide a more accurate representation of the state of infrastructure. The type of condition data used for each class is indicated in Chapter V, Section 2.

## 2. Financial Data

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In this AMP, the average annual requirement is the amount based on current replacement costs that municipalities should set aside annually for each infrastructure class so that assets can be replaced upon reaching the end of their lifecycle.

To determine current funding capacity, all existing sources of funding are identified, aggregated, and an average for the previous three years is calculated, as data is available. These figures are then assessed against the average annual requirements, and are used to calculate the annual funding shortfall (surplus) and for forming the financial strategies.

In addition to the annual shortfall, the majority of municipalities face significant infrastructure backlogs. The infrastructure backlog is the accrued financial investment needed in the short-term to bring the assets to a state of good repair. This amount is identified for each asset class.

Only predictable sources of funding are used, e.g., tax and rate revenues, user fees, and other streams of income the municipality can rely on with a high degree of certainty. Government grants and other ad-hoc injections of capital are not enumerated in this asset management plan given their unpredictability. As senior governments make greater, more predictable and permanent commitments to funding municipal infrastructure programs, e.g., the federal Gas Tax Fund, future iterations of this asset management plan will account for such funding sources.

### 3. Infrastructure Report Card

The asset management plan is a complex document, but one with direct implications on the public, a group with varying degrees of technical knowledge. To facilitate communications, we've developed an Infrastructure Report Card that summarizes our findings in accessible language that municipalities can use for internal and external distribution. The report card is developed using two key, equally weighted factors:

Table 3 Infrastructure Report Card Description

Financial Capacity		A municipality's financial capacity is determined by how well it's meeting the average annual investment requirements (0-100%) for each infrastructure class.
Asset Health		Using either field inspection data as available or age-based data, the asset health provide a grade for each infrastructure class based on the portion of assets in poor to excellent condition (0-100%). We use replacement cost to determine the weight of each condition group within the asset class.
Letter Grade	Rating	Description
A	Very Good	The asset is functioning and performing well; only normal preventative maintenance is required. The municipality is fully prepared for its long-term replacement needs based on its existing infrastructure portfolio.
B	Good	The municipality is well prepared to fund its long-term replacement needs but requires additional funding strategies in the short-term to begin to increase its reserves.
C	Fair	The asset's performance or function has started to degrade and repair/rehabilitation is required to minimize lifecycle cost. The municipality is underpreparing to fund its long-term infrastructure needs. The replacement of assets in the short- and medium-term will likely be deferred to future years.
D	Poor	The asset's performance and function is below the desired level and immediate repair/rehabilitation is required. The municipality is not well prepared to fund its replacement needs in the short-, medium- or long-term. Asset replacements will be deferred and levels of service may be reduced.
F	Very Poor	The municipality is significantly underfunding its short-term, medium-term, and long-term infrastructure requirements based on existing funds allocation. Asset replacements will be deferred indefinitely. The municipality may have to divest some of its assets (e.g., bridge closures, arena closures) and levels of service will be reduced significantly.

## 4. Limitations and Assumptions

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Several limitations continue to persist as municipalities advance their asset management practices.

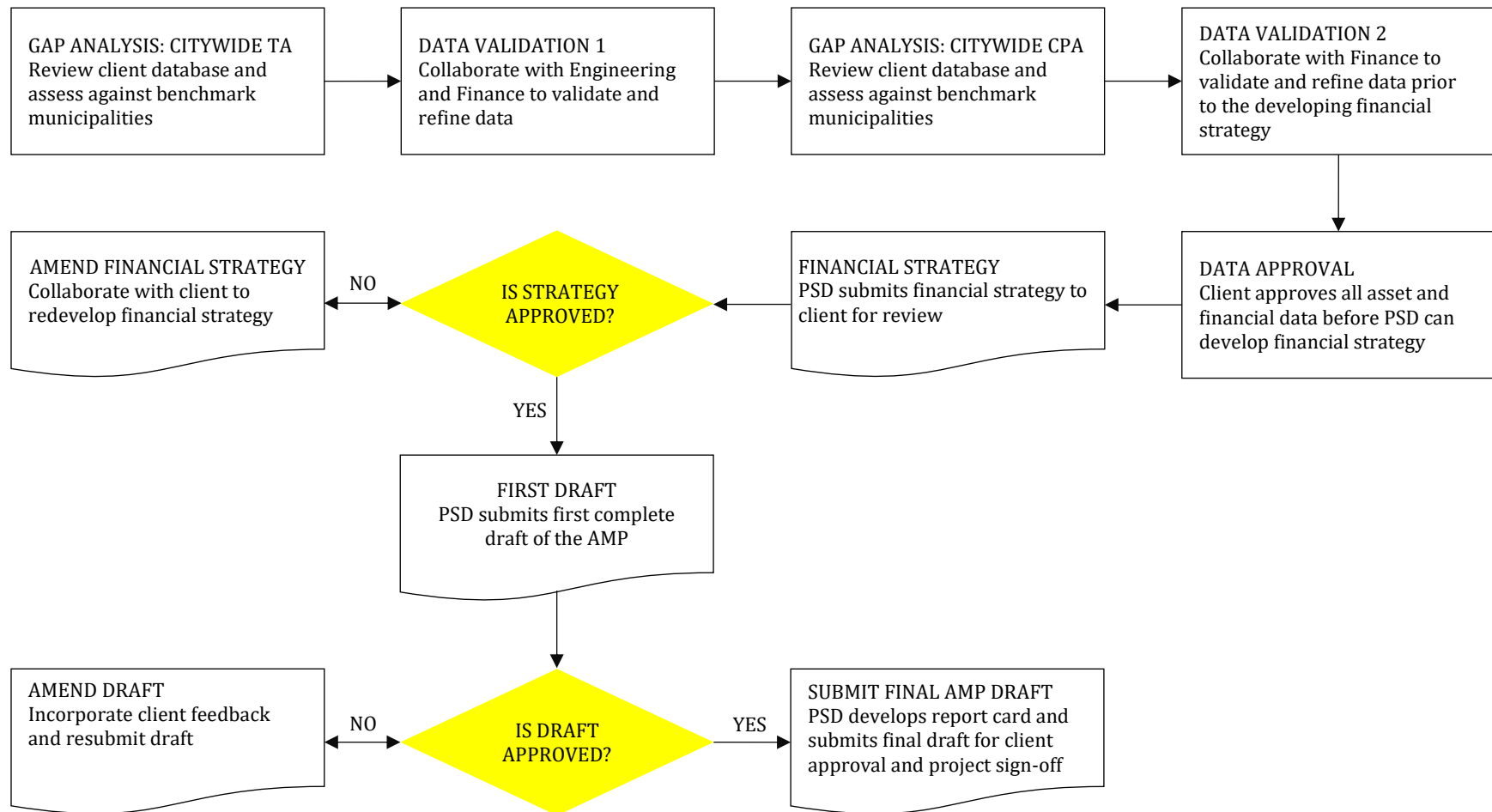
1. As available, we use field condition assessment data to determine both the state of infrastructure and develop the financial strategies. However, in the absence of observed data, we rely on the age of assets to estimate their physical condition.
2. A second limitation is the use of inflation measures, for example using CPI/NRBCPI to inflate historical costs in the absence of actual replacement costs. While a reasonable approximation, the use of such multipliers may not be reflective of market prices and may over- or understate the value of a municipality's infrastructure portfolio and the resulting capital requirements.
3. Our calculations and recommendations will reflect the best available data at the time this AMP was developed.
4. The focus of this plan is restricted to capital expenditures and does not capture O&M expenditures on infrastructure.



## 5. Process

High data quality is the foundation of intelligent decision-making. Generally, there are two primary causes of poor decisions: Inaccurate or incomplete data, and the misinterpretation of data used. The figure below illustrates an abbreviated version of our work order/work flow process between PSD and municipal staff. It is designed to ensure maximum confidence in the raw data used to develop the AMP, the interpretation of the AMP by all stakeholders, and ultimately, the application of the strategies outlined in this AMP.

Figure 2 Developing the AMP – Work Flow and Process



## 6. Data Confidence Rating

Staff confidence in the data used to develop the AMP can determine the extent to which recommendations are applied. Low confidence suggests uncertainty about the data and can undermine the validity of the analysis. High data confidence endorses the findings and strategies, and the AMP can become an important, reliable reference guide for interdepartmental communication as well as a manual for long-term corporate decision-making. Having a numerical rating for confidence also allows the municipality to track its progress over time and eliminate data gaps.

Data confidence in this AMP is determined using five key factors and is based on the City of Brantford's approach. Municipal staff provide their level of confidence (score) in each factor for major asset classes along a spectrum, ranging from 0, suggesting low confidence in the data, to 100 indicative of high certainty regarding inputs. The five Factors used to calculate the municipality's data confidence ratings are:

F1	F2	F3	F4	F5
The data is up to date.	The data is complete and uniform.	The data comes from an authoritative source	The data is error free.	The data is verified by an authoritative source.

The municipality's self-assessed score in each factor is then used to calculate data confidence in each asset class using Equation 1 below.

$$\text{Asset Class Data Confidence Rating} = \sum \text{Score in each factor} \times \frac{1}{5}$$



## V. Summary Statistics

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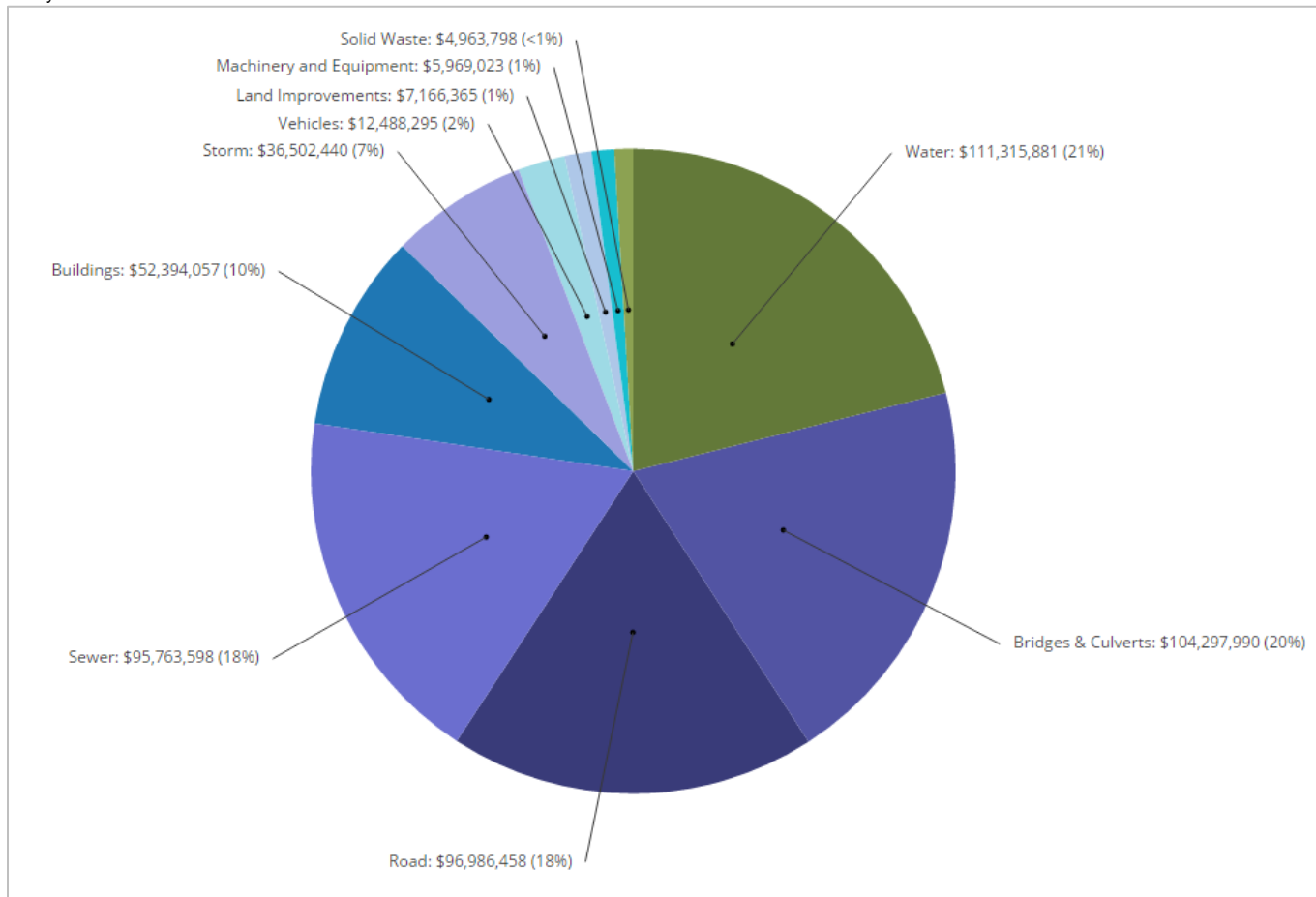
In this section, we aggregate technical and financial data across all asset classes analyzed in this AMP, and summarize the state of the infrastructure using key indicators, including asset condition, useful life consumption, and important financial measurements.



# 1. Asset Valuation

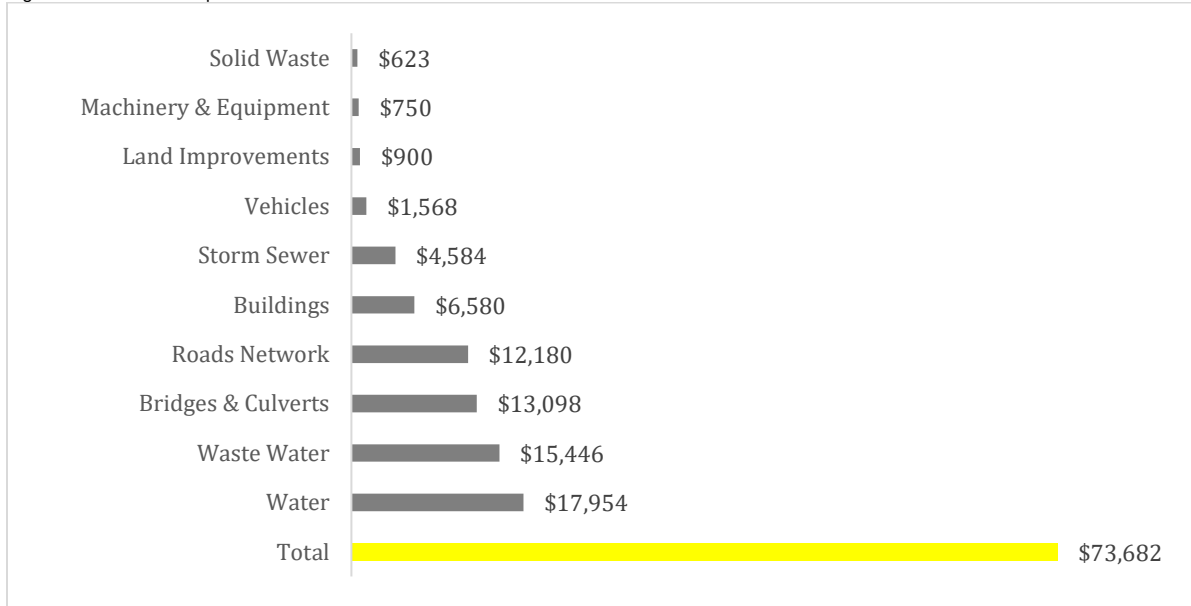
The asset classes analyzed in this asset management plan for the municipality had a total 2016 valuation of \$528 million, of which the water system comprised 21%, followed by bridges & culverts at 20%. The ownership per household (Figure 4) totaled \$73,682 based on 7,963 households for all asset categories except for water and waste water which has 6,200.

Figure 3 Asset Valuation by Class



**Total: \$527,847,901**

Figure 4 2016 Ownership Per Household



## 2. Source of Condition Data by Asset Class

Observed data will provide the most precise indication of an asset's physical health. In the absence of such information, age of capital assets can be used as a meaningful approximation of the asset's condition. Table 4 indicates the source of condition data used for each of the nine asset classes in this AMP.

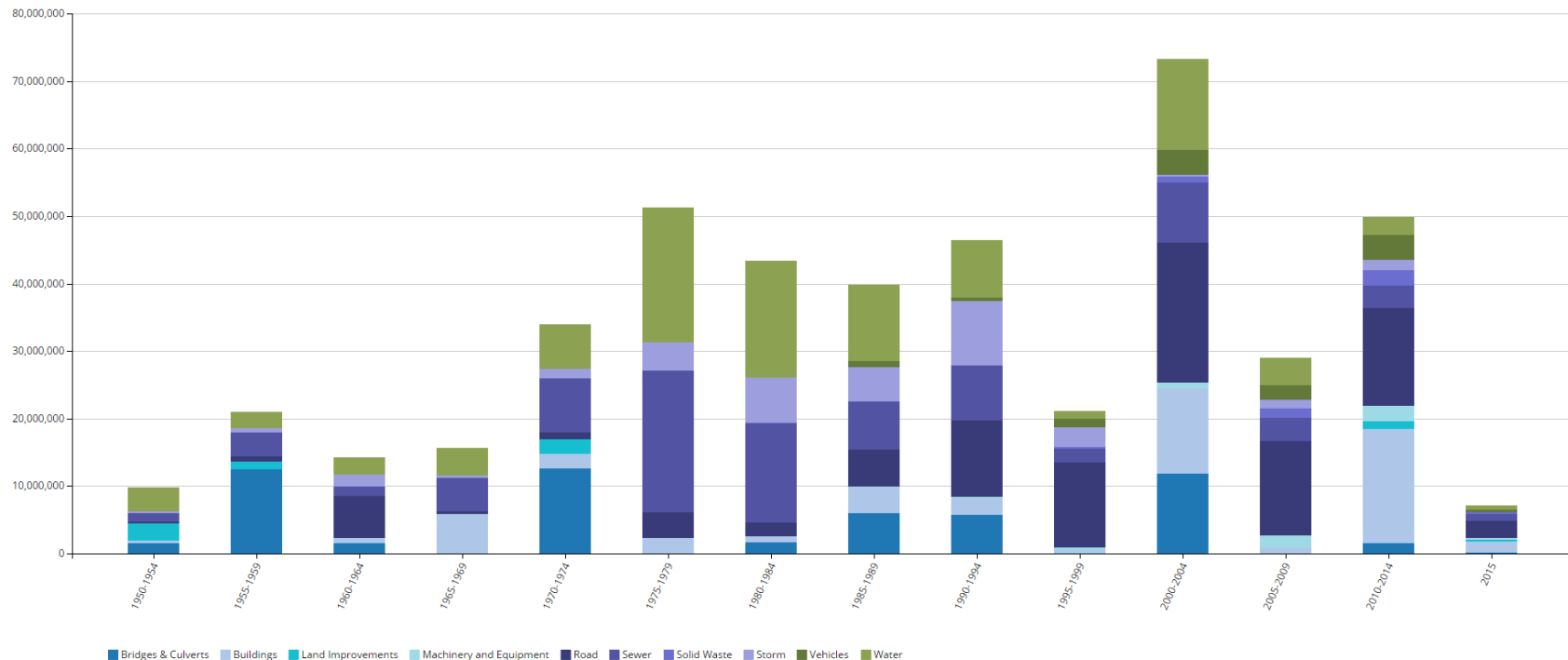
Table 4 Source of Condition Data by Asset Class

Asset class	Component	Source of Condition Data
Roads Network	Gravel Roads	Assessed: 96%
	Guide Rails	Assessed: 76%
	Paved Alleys	Age-based:
	Paved Roads	Assessed: 94%
	Surface Treated	Assessed: 84%
	Sidewalks	Age-based
	Signs	Age-based
	Streetlights	Age-based
Bridges & Culverts	Traffic Signals	Age-based
	Culvert - CSP	Age-based
	Culvert - Concrete PE/PVC	Age-based
	Culverts	Age-based
	Substructure	Assessed: 86%
Water System	Superstructure	Assessed: 86%
	ALL	Age-based
Waste water Services	Manholes	Age-based
	Treatment Plant	Age-based
	Sewer Mains	Age-based
	Pumping/Lift Stations	Assessed: 85%
Storm	ALL	Age-based
Buildings & Facilities	ALL	Age-based
Machinery & Equipment	ALL	Age-based
Land Improvements	ALL	Age-based
Fleet	ALL	Age-based
Solid Waste	ALL	Age-based

### 3. Historical Investment in Infrastructure – All Asset Classes

In conjunction with condition data, two other measurements can augment staff understanding of the state of infrastructure and impending and long-term infrastructure needs: installation year profile, and useful life remaining. The installation year profile in Figure 5 illustrates the historical investments in infrastructure across the asset classes analyzed in this AMP since 1950 using 2016 replacement costs. Often, investment in critical infrastructure parallels population growth or other significant shifts in demographics.

Figure 5 Historical Investment in Infrastructure – All Asset Classes

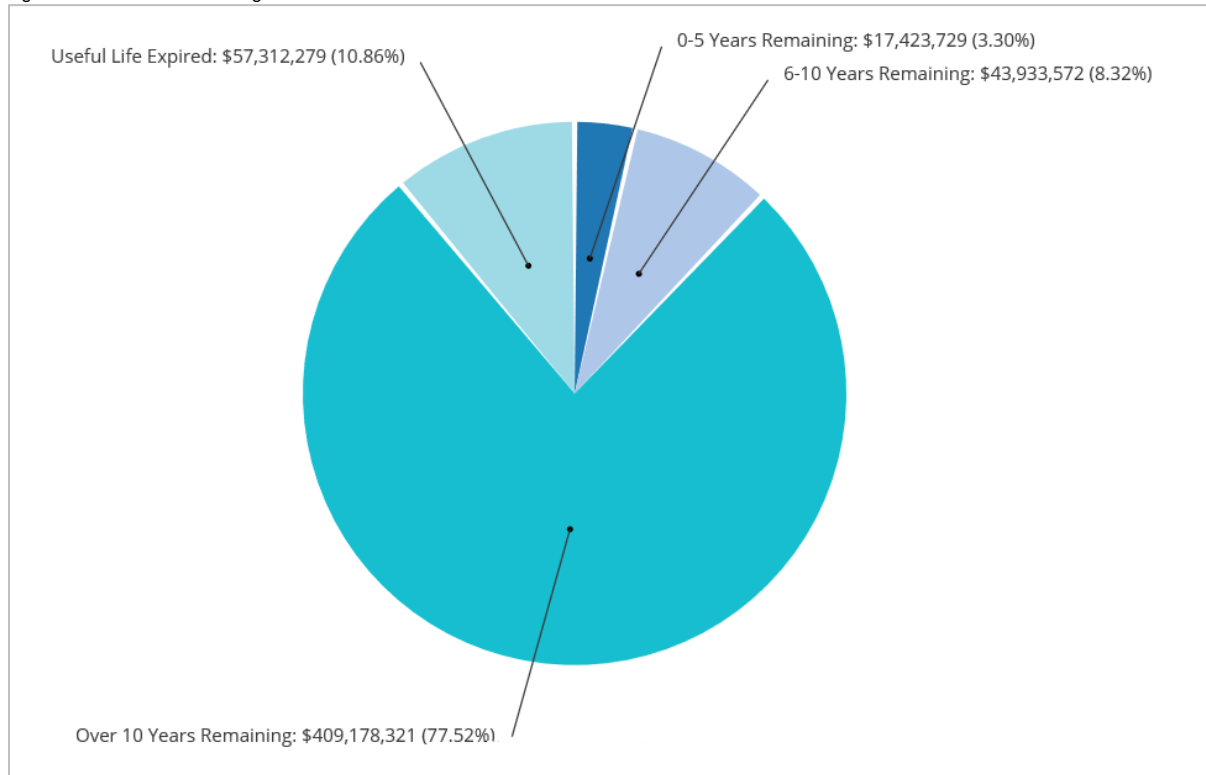


The municipality has made consistent investments in its infrastructure throughout the last six decades, with major initial investments in bridges & culverts occurring in the 1950s and 1970s. Investments in waste water and water, totaling more than \$41 million, occurred in the mid-1970s; additional investments in the two classes, totaling \$32 million, followed between 1980-1984. Between 2000-2004, the period of the largest investments, expenditures totaled more than \$74 million, allocated primarily to roads (\$21 million), water (\$14 million), buildings (\$13 million) and bridges & culverts (\$12 million). Since 2010, expenditures have totaled \$57 million.

## 4. Useful Life Consumption – All Asset Classes

While age is not a precise indicator of an asset's health, in the absence of observed condition assessment data, it can serve as a high-level, meaningful approximation and help guide replacement needs and facilitate strategic budgeting. Figure 6 shows the distribution of assets based on the percentage of useful life already consumed.

Figure 6 Useful Life Remaining as of 2015 – All Asset Classes

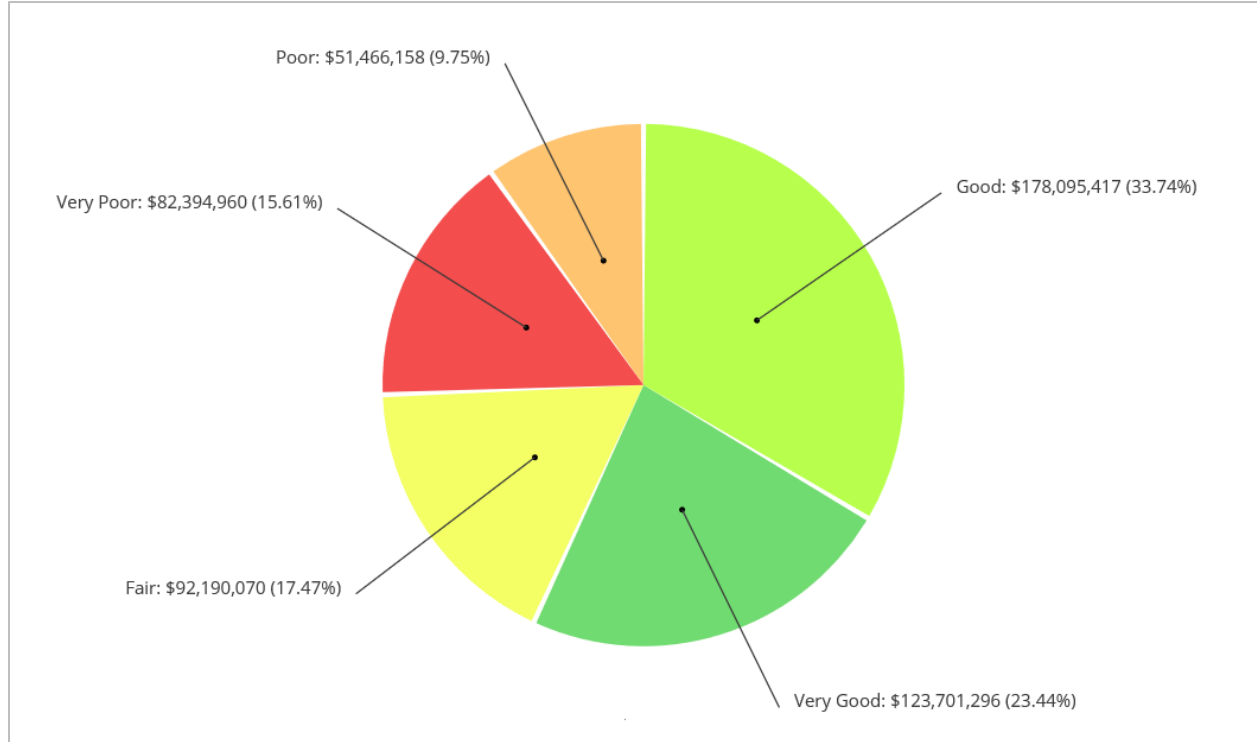


Nearly 80% of the assets analyzed in this AMP have at least 10 years of useful life remaining. However, 11%, with a valuation of \$57 million, remain in operation beyond their established useful life. An additional 3%, with a valuation of \$17 million, will reach the end of their useful life within the next five years.

## 5. Overall Condition – All Asset Classes

Based on 2016 replacement cost, and a blend of assessment and age-based data, while nearly 60% of assets, are in good to very good condition, 26%, with a valuation of \$134 million, are in poor to very poor condition.

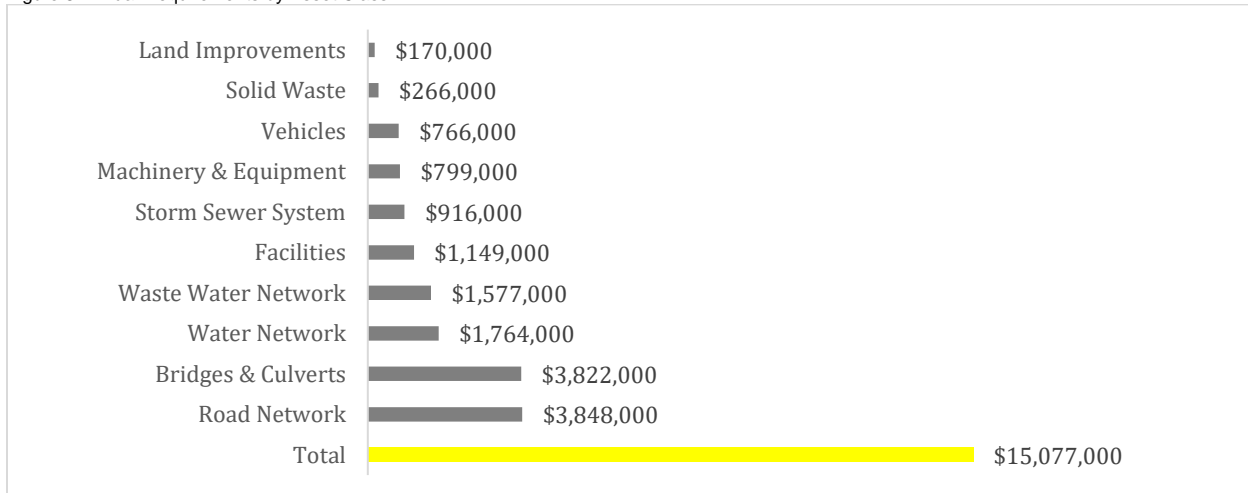
Figure 7 Asset Condition Distribution by Replacement Cost as of 2015 – All Asset Classes



## 6. Financial Profile

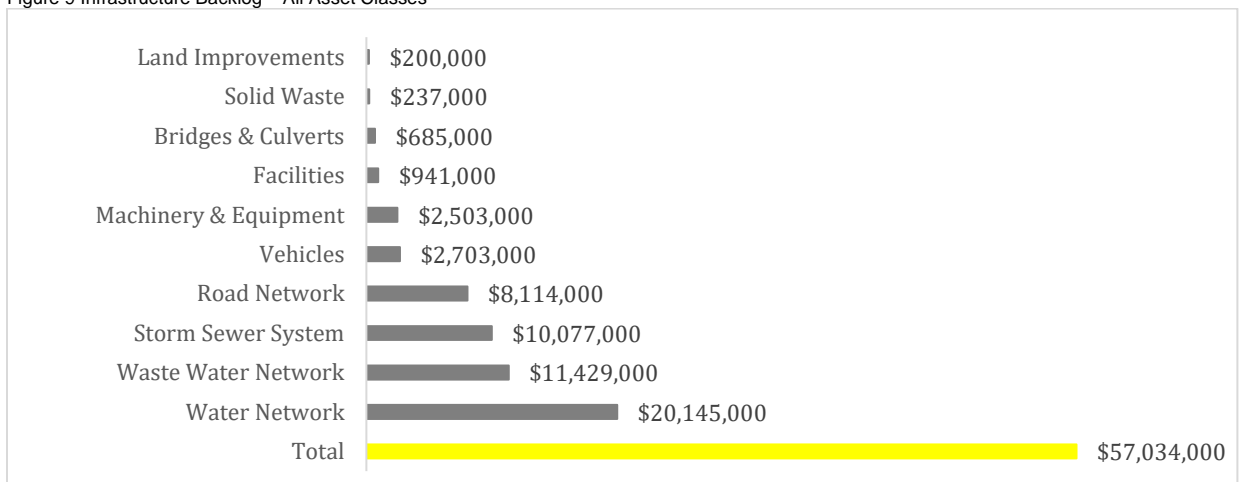
This section details key financial indicators related to the municipality's asset classes as analyzed in this asset management plan.

Figure 8 Annual Requirements by Asset Class



The annual requirements represent the amount the municipality should allocate annually to each of its asset classes to meet replacement need as they arise, prevent infrastructure backlogs and achieve long-term sustainability. In total, the municipality must allocate \$15 million annually for the assets covered in this AMP.

Figure 9 Infrastructure Backlog – All Asset Classes



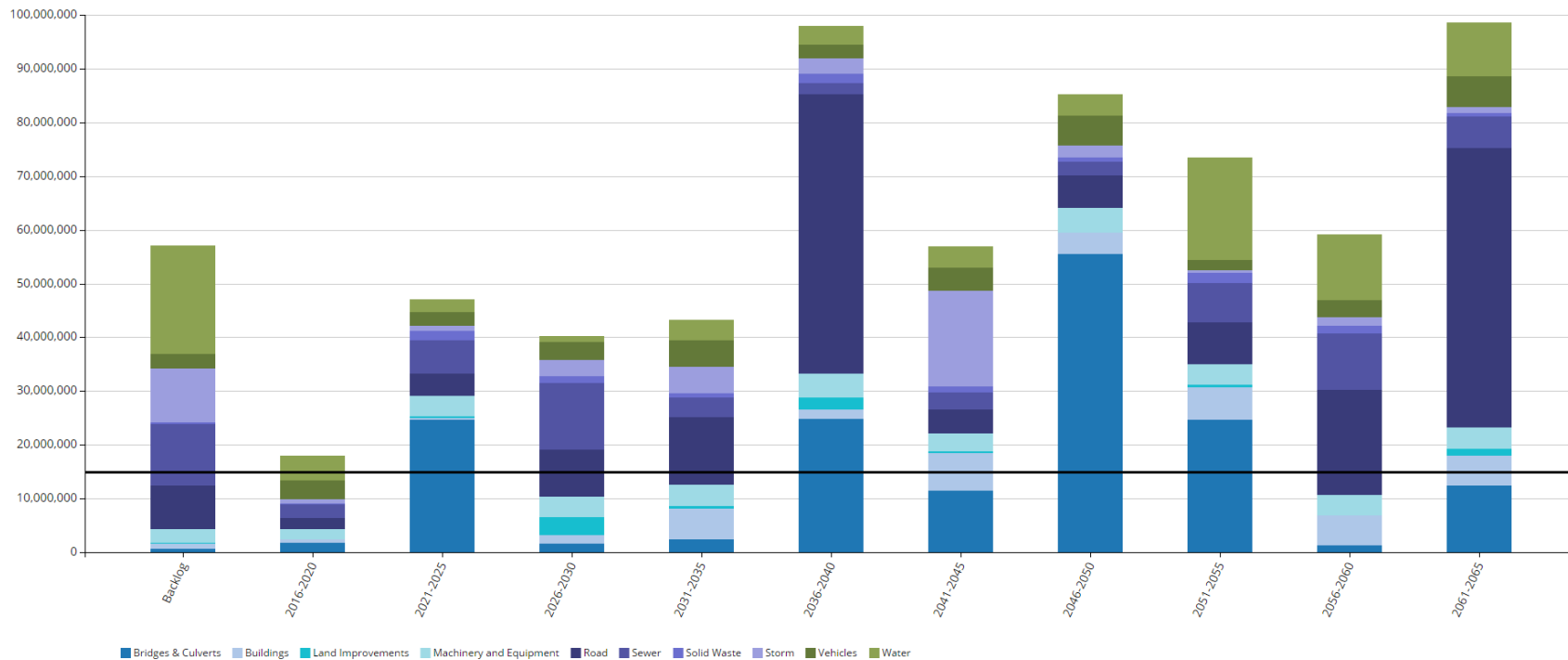
The municipality has a combined infrastructure backlog of \$57 million, with road network comprising 43%. The backlog represents the investment needed today to meet previously deferred replacement needs. In the absence of assessed data, the backlog represents the value of assets still in operation beyond their established useful life.



## 7. Replacement Profile – All Asset Classes

In this section, we illustrate the aggregate short-, medium- and long-term infrastructure spending requirements (replacement only) for the municipality's asset classes as analyzed in this AMP. The backlog is the aggregate investment in infrastructure that was deferred over previous years or decades. In the absence of observed data, the backlog represents the value of assets that remain in operation beyond their useful life.

Figure 10 Replacement Profile – All Asset Classes



The municipality has a combined backlog of \$57 million, of which the water, waste water and storm networks comprise more than \$41 million. Aggregate replacement needs will total more than \$18 million over the next five years. An additional \$47 million will be required between 2021 and 2025. The municipality's aggregate annual requirements (indicated by the black line) total \$15 million. At this funding level, the municipality is allocating sufficient funds on an annual basis to meet the replacement needs for its various asset classes as they arise without the need for deferring projects and accruing annual infrastructure deficits. Currently, the municipality is funding 41% of the

annual requirements for tax-funded assets and 68% for rate-funded assets. See the 'Financial Strategy' chapter for achieving a more optimal and sustainable funding level. Further, while fulfilling the annual requirements will position the municipality to meet its future replacement needs, injection of additional revenues will be needed to mitigate existing infrastructure backlogs.

## 8. Data Confidence

The municipality has a very high degree of confidence in the data used to develop this AMP. This is indicative of significant effort in collecting and refining its data set. However, no information was provided for water and waste water services, which together comprise nearly 40% of the municipality's infrastructure portfolio. As a result, the overall confidence rating is not calculated..

Table 5 Data Confidence Ratings

Asset Class	The data is up-to-date.	The data is complete and uniform.	The data comes from an authoritative source.	The data is error free.	The data is verified by an authoritative source.	Average Confidence Rating	Weighted Average Data Confidence Rating
Road Network	90%	90%	100%	90%	100%	94%	NA
Bridges & Culverts	90%	90%	100%	90%	100%	94%	NA
Water System	NA	NA	NA	NA	NA	NA	NA
Waste water Services	NA	NA	NA	NA	NA	NA	NA
Storm	80%	80%	100%	80%	100%	88%	NA
Buildings & Facilities	80%	80%	100%	80%	100%	88%	NA
Machinery & Equipment	100%	100%	100%	90%	100%	98%	NA
Land Improvements	80%	80%	100%	80%	100%	88%	NA
Fleet	100%	100%	100%	90%	100%	98%	NA
Overall Weighted Average Data Confidence Rating							NA

## VI. State of Local Infrastructure

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In this section, we detail key indicators for each class discussed in this asset management plan. The state of local infrastructure includes the full inventory, condition ratings, useful life consumption data, and the backlog and upcoming infrastructure needs for each asset class. As available, assessed condition data was used to inform the discussion and recommendations; in the absence of such information, age-based data was used as the next best alternative.



# 1. Road Network

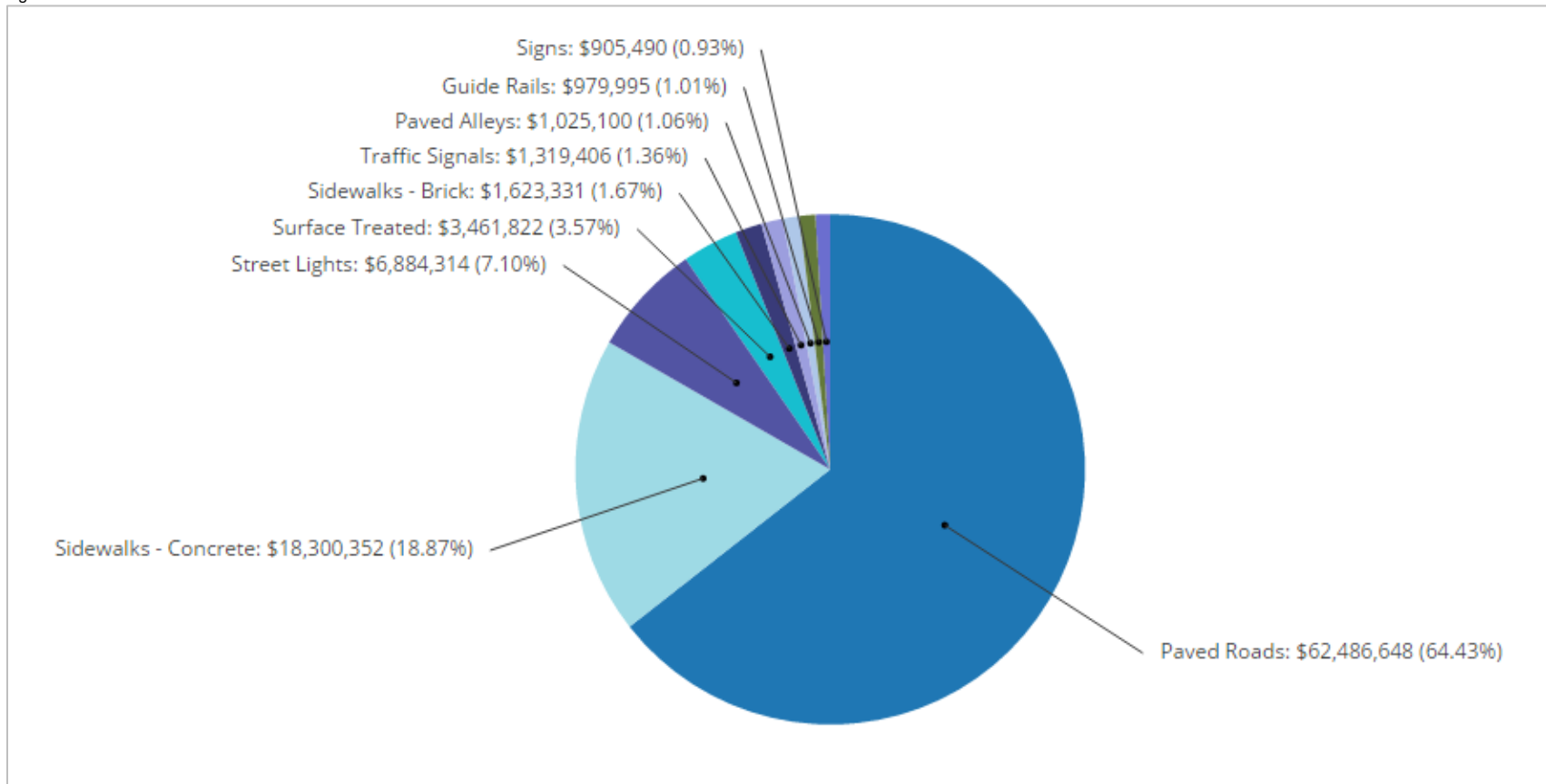
## 1.1 Asset Portfolio: Quantity, Useful Life and Replacement Cost

Table 6 illustrates key asset attributes for the municipality's road network, including quantities of various assets, their useful life, their replacement cost, and the valuation method by which the replacement cost were derived. In total, the municipality's roads assets are valued at \$97 million based on 2016 replacement costs. The useful life indicated for the asset types below was assigned by the municipality and obtained from the municipality's accounting data as maintained in the CityWide® Tangible Asset module.

Table 6 Key Asset Attributes – Road Network

Asset Type	Asset Component	Quantity	Useful Life in Years	Valuation Method	2016 Replacement Cost
Road Network	Gravel Road	162,793 m <sup>2</sup>	10	Not Planned for Replacement	\$0
	Paved Road	532,265 m <sup>2</sup>	25	CPI Tables	\$62,486,648
	Paved Alleys	20,987 m <sup>2</sup>	25	CPI Tables	\$1,025,100
	Guide rails	64	20	CPI Tables	\$979,995
	Sidewalk – Brick	22,176 m <sup>2</sup>	40	CPI Tables	\$1,623,331
	Sidewalk - Concrete	80,819 m <sup>2</sup>	50	CPI Tables	\$18,300,352
	Signs	8	5	CPI Tables	\$905,490
	Street Lights	1,680	20	CPI Tables	\$6,884,314
	Surface Treated Road	292,686 m <sup>2</sup>	15	CPI Tables	\$3,461,822
	Traffic Signals	15	20	CPI Tables	\$1,319,406
Total					\$96,986,458

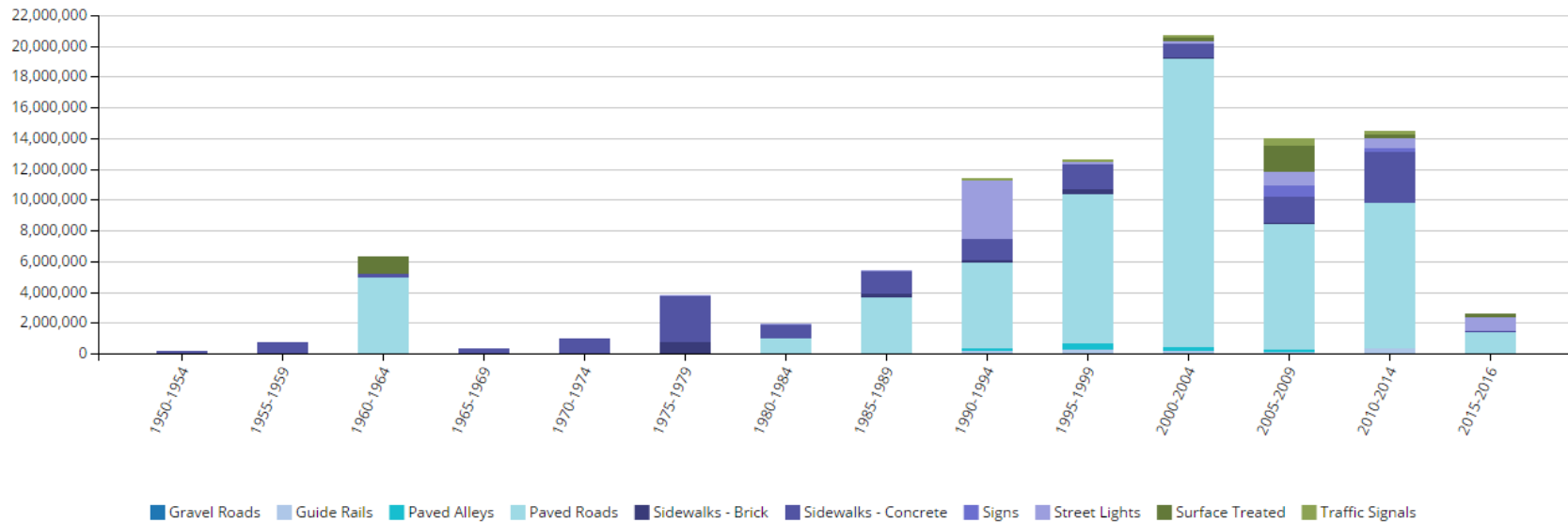
Figure 11 Asset Valuation – Road Network



## 1.2 Historical Investment in Infrastructure

Figure 12 shows the municipality's historical investments in its road network since 1950. While observed condition data will provide superior accuracy in estimating replacement needs and should be incorporated into strategic plans, in the absence of such information, understanding past expenditure patterns and current useful life consumption levels (Section 1.3) can inform the forecasting and planning of short-, medium- and long-term replacement needs.

Figure 12 Historical Investment – Road Network

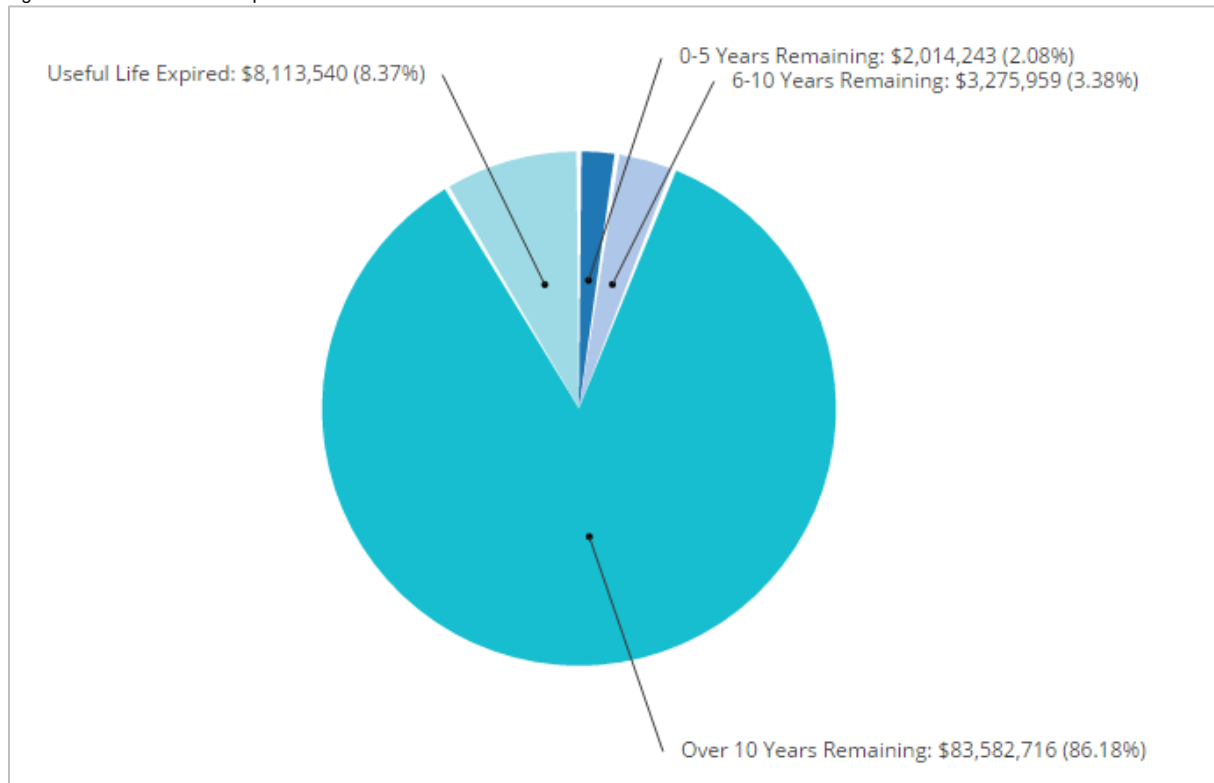


Investments in the municipality's road network increased consistently starting in the 1980s, similar to many other municipalities in Canada. Between 2000-2004, the period of the largest investments, expenditures totaled \$20.7 million. Since 2010, investments have totaled \$17 million, allocated primarily to the road network.

### 1.3 Useful Life Consumption

In this section, we detail the extent to which assets have consumed their useful life based on the above, established useful life standards. In conjunction historical spending patterns, observed condition data, understanding the consumption rate of assets based on industry established useful life measures provides a more complete profile of the state of a community's infrastructure. Figure 13 illustrates the useful life consumption levels as of 2015 for the municipality's road network.

Figure 13 Useful Life Consumption - Road Network



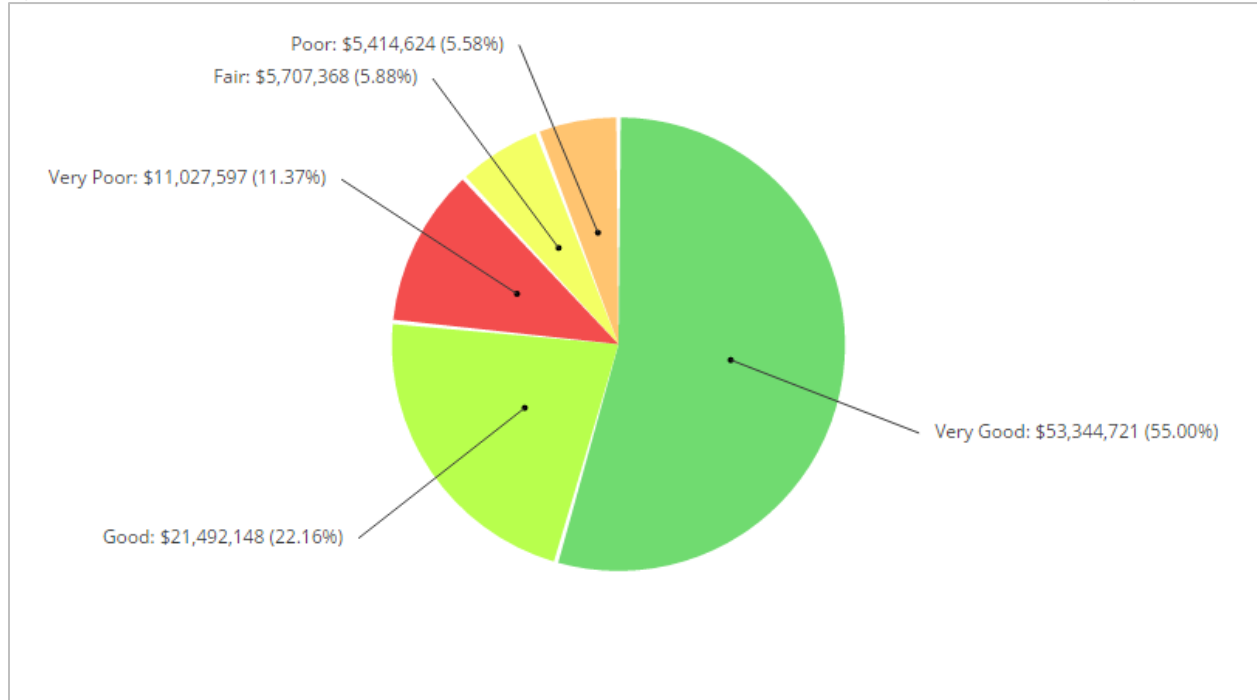
While more than 85% of the municipality's road network has at least 10 years of useful life remaining, 8%, with a valuation of \$8.1 million, remain in operation beyond their useful life. An additional 2% will reach the end of their useful life in five years.



## 1.4 Current Asset Condition

Using replacement cost, in this section, we summarize the condition of the municipality's road network as of 2015. By default, we rely on observed field data as provided by the municipality. In the absence of such information, age-based data is used as a proxy. The municipality has provided condition data for some of its linear road assets.

Figure 14 Asset Condition – Road Network (Partially Assessed: Gravel Roads, Guide Rails, Paved Roads, Surface Treated; remaining age-based)

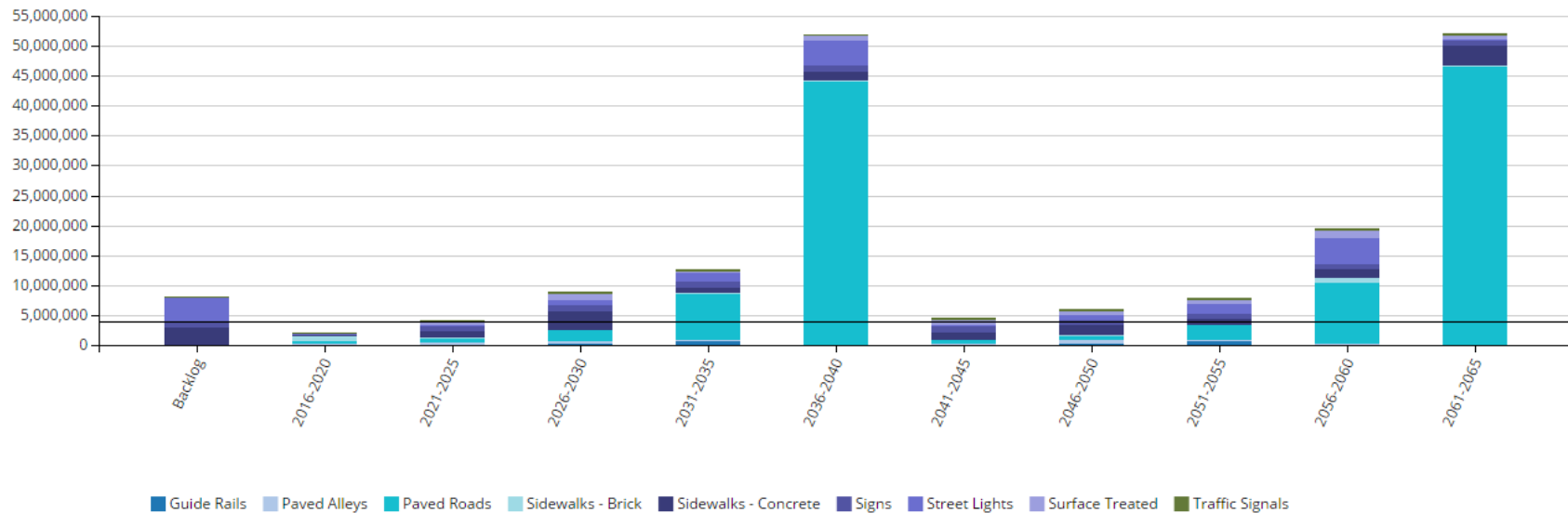


Based on a blend of age and assessed condition data, 17% of assets, with a valuation of \$16 million are in poor to very poor condition; more than 75% are in good to very good condition.

## 1.5 Forecasting Replacement Needs

In this section, we illustrate the short-, medium- and long-term infrastructure spending requirements (replacement only) for the municipality's road network assets. The backlog is the aggregate investment in infrastructure that was deferred over previous years or decades. In the absence of observed data, the backlog represents the value of assets that remain in operation beyond their useful life.

Figure 15 Forecasting Replacement Needs – Road Network



In addition to a backlog of \$8.1 million, replacement needs are forecasted to be \$2 million in the next five years; an additional \$4.1 million is forecasted between 2021-2025. The municipality's annual requirements (indicated by the black line) for its road network total \$3,848,000. At this funding level, the municipality is allocating sufficient funds on an annual basis to meet replacement needs as they arise without the need for deferring projects and accruing annual infrastructure deficits. However, the municipality is currently allocating \$2 million, leaving an annual deficit of \$1.8 million. See the 'Financial Strategy' section for achieving a more optimal and sustainable funding level. Further, while fulfilling the annual requirements will position the municipality to meet its future replacement needs, injection of additional revenues will be needed to mitigate existing infrastructure backlogs.

## 1.6 Recommendations – Road Network

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- A blend of age and field inspection data indicates a backlog of \$8.1 million and 10-year replacement needs of \$6 million. The municipality should continue its condition assessments of road surfaces and expand the program to incorporate additional asset components in order to more precisely estimate its actual financial requirements and field needs. See Section 2, ‘Condition Assessment Programs’ in the ‘Asset Management Strategies’ chapter.
- The data collected through condition assessment programs should be integrated into a risk management framework which will guide prioritization of the backlog as well as short, medium, and long term replacement needs. See Section 4, ‘Risk’ in the ‘Asset Management Strategies’ chapter for more information.
- In addition to the above, a tailored life cycle activity framework should also be developed to promote standard life cycle management of the road network as outlined further within the “Asset Management Strategy” section of this AMP.
- Road network key performance indicators should be established and tracked annually as part of an overall level of service model. See Section 7 ‘Levels of Service’.
- The municipality is funding only 52% of its long-term requirements on an annual basis. See the ‘Financial Strategy’ section on how to achieve more sustainable funding levels.

## 2. Bridges & Culverts

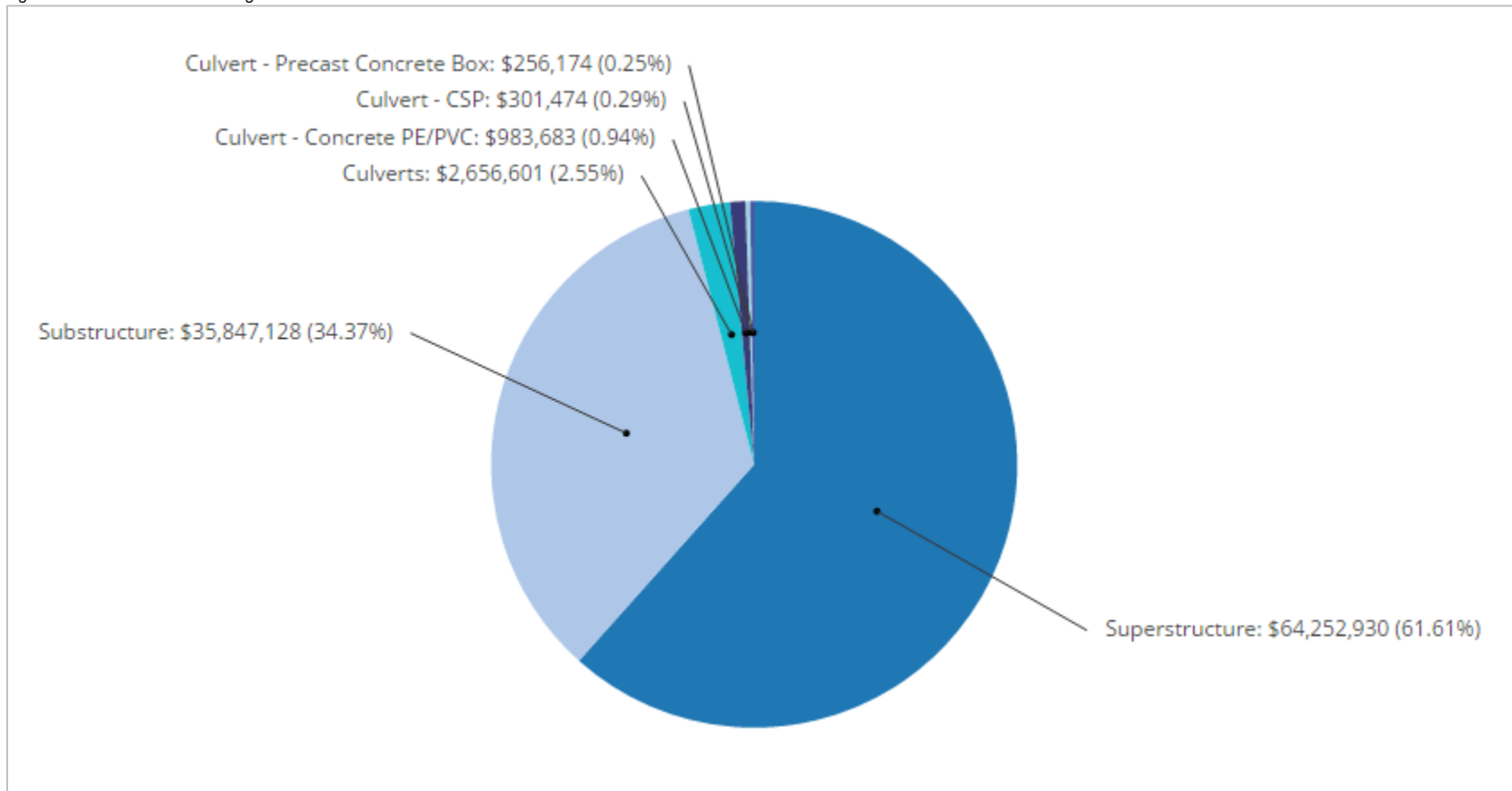
### 2.1 Asset Portfolio: Quantity, Useful Life and Replacement Cost

Table 7 illustrates key asset attributes for the municipality's bridges & culverts, including quantities of various assets, their useful life, their replacement cost, and the valuation method by which the replacement costs were derived. In total, the municipality's bridges & culverts assets are valued at \$104 million based on 2016 replacement costs. The useful life indicated for the asset types below was assigned by the municipality.

Table 7 Key Asset Attributes – Bridges & Culverts

Asset Type	Asset Component	Quantity	Useful Life in Years	Valuation Method	2016 Overall Replacement Cost
Bridges & Culverts	Substructure	23	15	CPI Tables	\$35,847,128
	Superstructure	22	50	CPI Tables	\$64,252,930
	Culverts	380	20 - 25	CPI Tables	\$2,656,601
	Culverts – CSP	5	20	CPI Tables	\$301,474
	Culverts – Concrete PE/PVC	3	50	CPI Tables	\$983,683
	Culverts – Precast Concrete Box	1	50	CPI Tables	\$256,174
Total					\$104,297,990

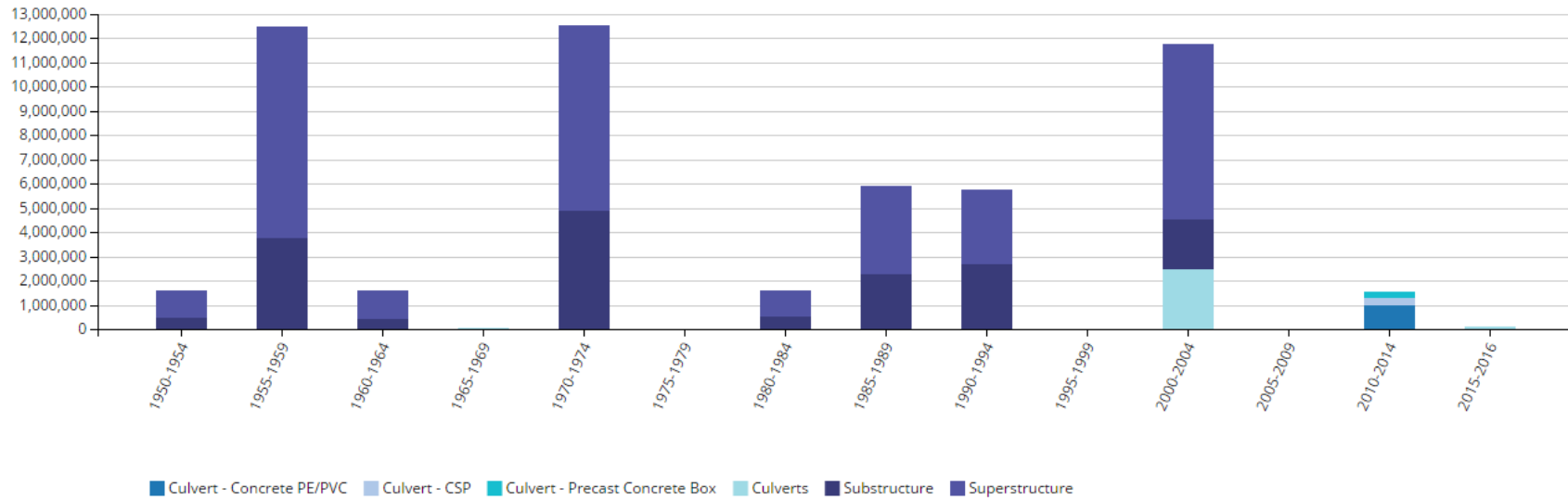
Figure 16 Asset Valuation – Bridges & Culverts



## 2.2 Historical Investment in Infrastructure

Figure 17 shows the municipality’s historical investments in its bridges & culverts since 1950 based on 2016 replacement costs. While observed condition data will provide superior accuracy in estimating replacement needs and should be incorporated into strategic plans, in the absence of such information, understanding past expenditure patterns and current useful life consumption levels (Section 2.3) can inform the forecasting and planning of short-, medium- and long-term replacement needs.

Figure 17 Historical Investment – Bridges & Culverts

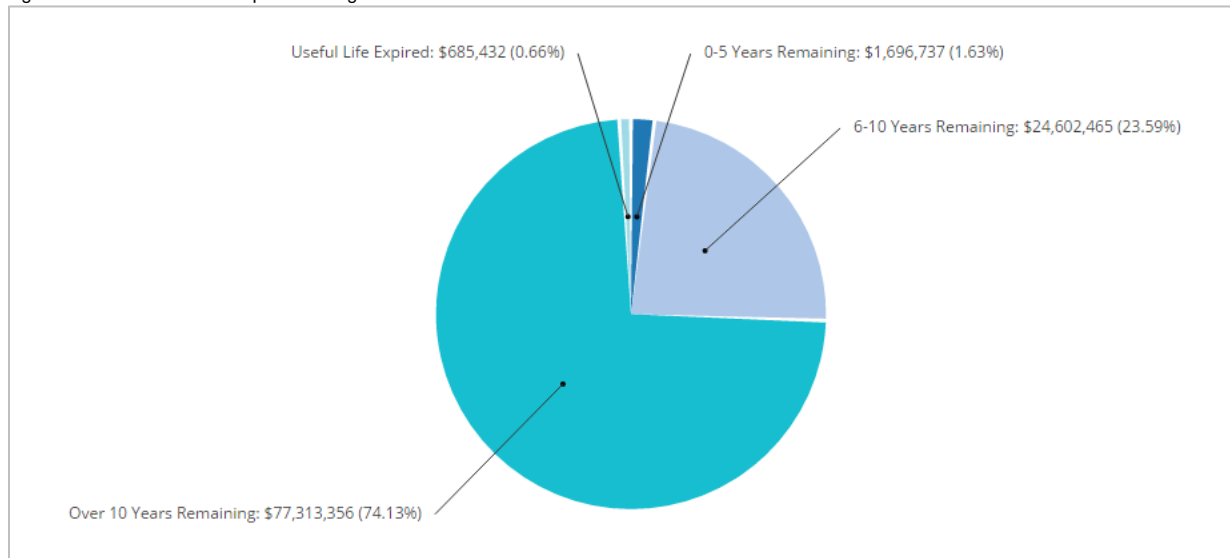


Major investments in bridges & culverts took place in the 1950s and 1970s, with expenditures totaling \$12.4 million between 1955-1959 and peaking at \$12.5 million between 1970-1974. Since 2000, expenditures have totaled \$13.4 million. Note that the download of bridges to the municipality from the Province occurred in 1997.

## 2.3 Useful Life Consumption

In this section, we detail the extent to which assets have consumed their useful life based on the above, established useful life standards. In conjunction historical spending patterns, observed condition data, understanding the consumption rate of assets based on industry established useful life measures provides a more complete profile of the state of a community's infrastructure. Figure 18 illustrates the useful life consumption levels as of 2015 for the municipality's bridges & culverts.

Figure 18 Useful Life Consumption – Bridges & Culverts

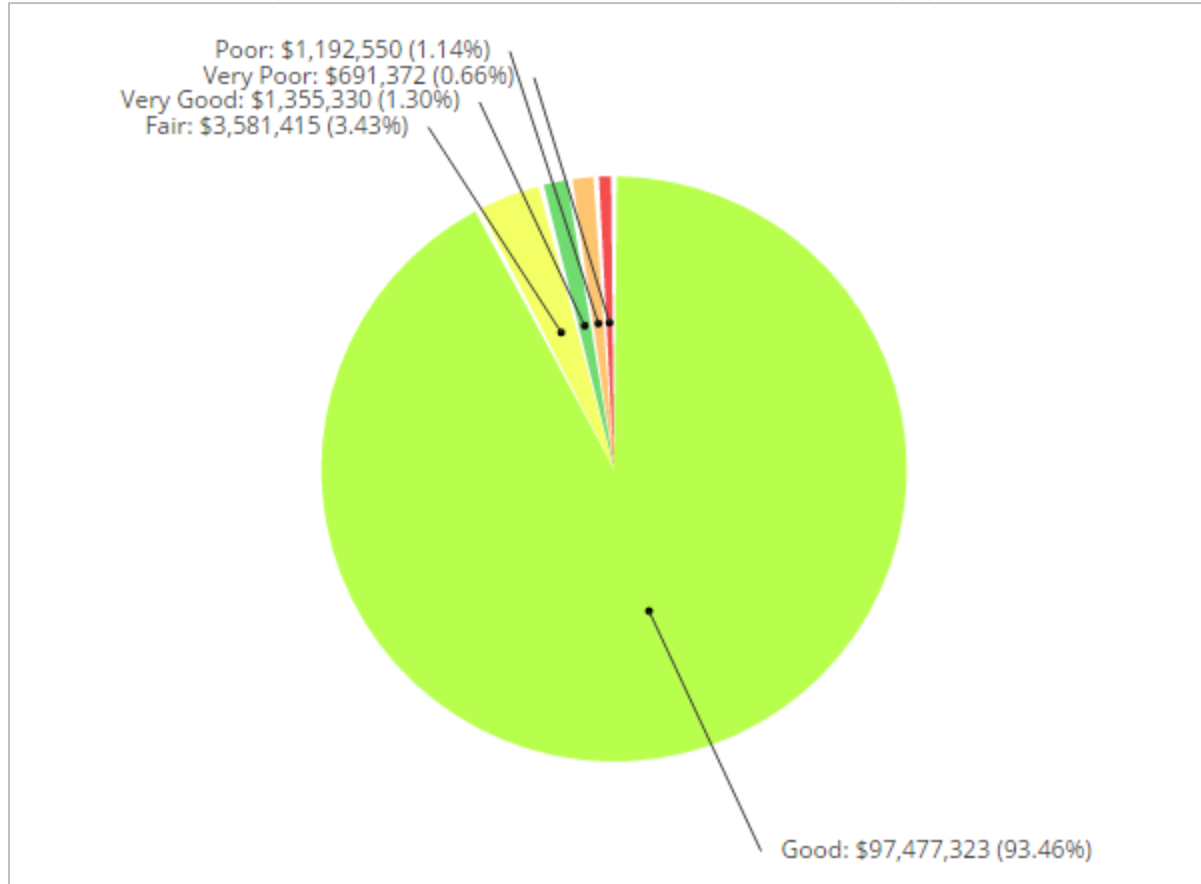


Nearly 75% of assets have at least 10 years of useful life remaining. Less than 1%, with a valuation of \$685,000 remain in operation beyond their useful life; 2% will reach the end of their useful life in the next five years.

## 2.4 Current Asset Condition

Using replacement cost, in this section, we summarize the condition of the municipality's bridges & culverts as of 2015. By default, we rely on observed field data adapted from OSIM inspections as provided by the municipality. In the absence of such information, age-based data is used as a proxy. The municipality has provided condition data for some of its bridges & culverts.

Figure 19 Asset Condition – Bridges & Culverts (Partially Assessed: Substructure, Superstructure; Remaining age-based)



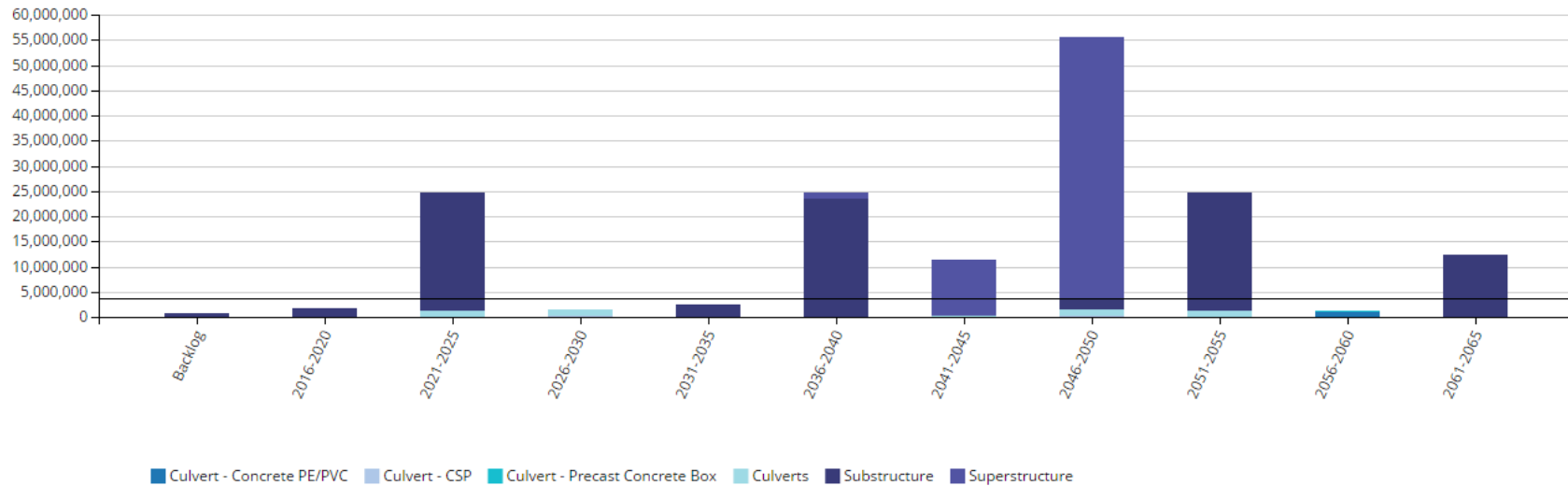
Based on a blend of age and assessed condition data, less than 2% of the municipality's bridges & culverts are in poor to very poor condition; 95%, with a valuation of \$98.1 million, are in good to very good condition.



## 2.5 Forecasting Replacement Needs

In this section, we illustrate the short-, medium- and long-term infrastructure spending requirements (replacement only) for the municipality's bridges & culverts. The backlog is the aggregate investment in infrastructure that was deferred over previous years or decades. In the absence of observed data, the backlog represents the value of assets that remain in operation beyond their useful life.

Figure 20 Forecasting Replacement Needs – Bridges & Culverts



In addition to a backlog of \$685,000, replacement needs will total \$1.7 million in the next five years; an additional \$24.6 million will be required between 2021 and 2030. The municipality's annual requirements (indicated by the black line) for its bridges & culverts total \$3.8 million. At this funding level, the municipality is allocating sufficient funds on an annual basis to meet replacement needs as they arise without the need for deferring projects and accruing annual infrastructure deficits. The municipality is currently allocating \$900,000, leaving an annual deficit of \$2.9 million. See the 'Financial Strategy' section for achieving a more optimal and sustainable funding level. Further, while fulfilling the annual requirements will position the municipality to meet its future replacement needs, injection of additional revenues will be needed to mitigate existing infrastructure backlogs.

## 2.6 Recommendations – Bridges & Culverts

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- The results and recommendations from the OSIM inspections should be used to generate the short-and long-term capital and maintenance budgets for the bridge and large culvert structures. See Section VIII, ‘Asset Management Strategies’.
- Bridge & culvert structure key performance indicators should be established and tracked annually as part of an overall level of service model. See Section VII ‘Levels of Service’.
- The municipality is funding only 24% of its long-term requirements on an annual basis. See the ‘Financial Strategy’ section on how to achieve more sustainable and optimal funding levels.

### 3. Water

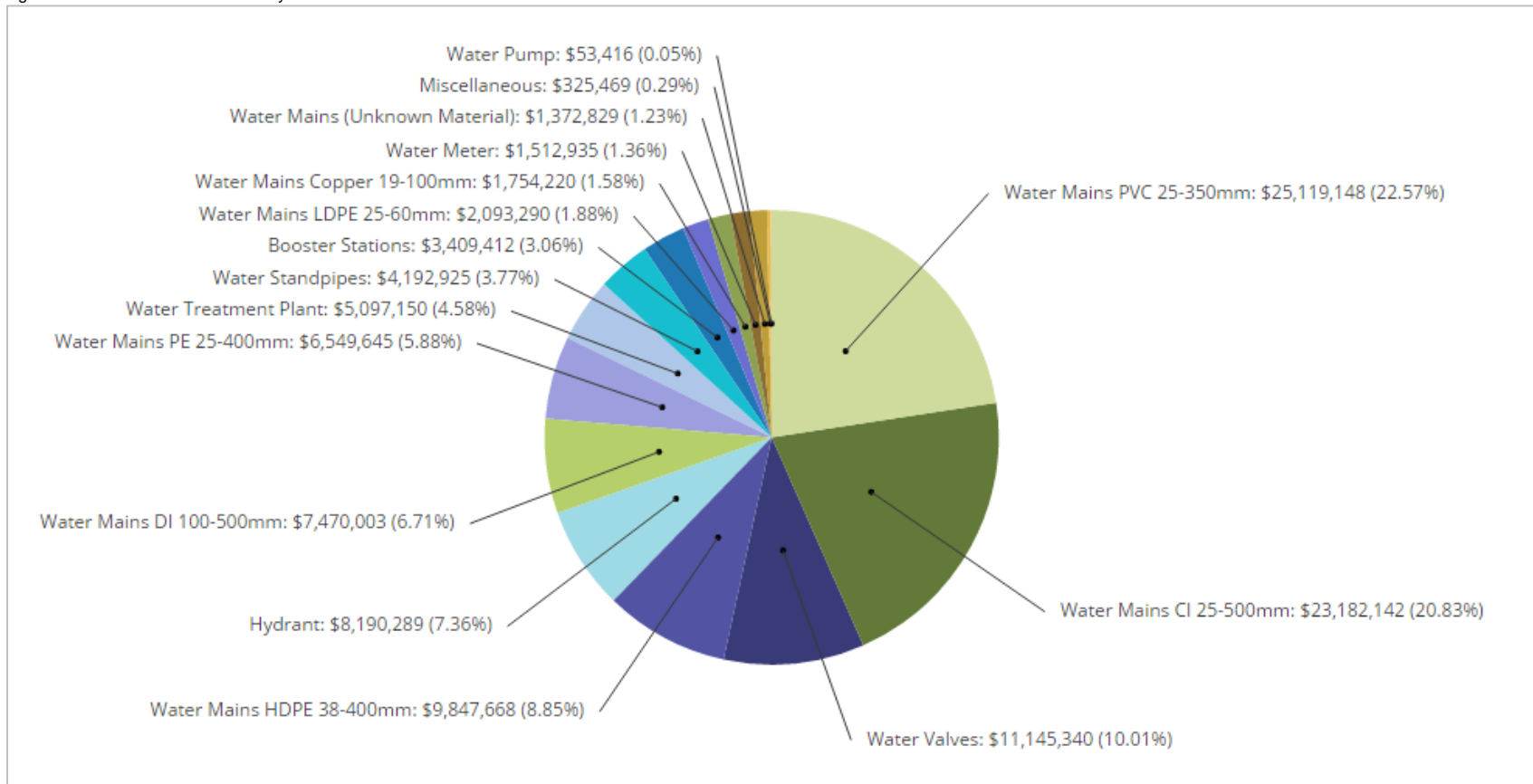
#### 3.1 Asset Portfolio: Quantity, Useful Life and Replacement Cost

Table 8 illustrates key asset attributes for the municipality's water system assets, including quantities of various assets, their useful life, replacement costs, and the valuation method by which the replacement costs were derived. In total, the municipality's water system assets are valued at \$111 million based on 2016 replacement costs. The useful life indicated for the asset types below was assigned by the municipality and obtained from the municipality's accounting data as maintained in the CityWide® Tangible Asset module.

Table 8 Key Asset Attributes – Water

Asset Type	Asset Component	Quantity	Useful Life in Years	Valuation Method	2016 Replacement Cost
Water	Water Pump	3	50	CPI Tables	\$53,416
	Booster Station	5	75	CPI Tables	\$3,409,412
	Hydrant	541	75	CPI Tables	\$8,190,289
	Water Meter	6,601	15 – 20	CPI Tables	\$1,512,935
	Standpipes	3	75	CPI Tables	\$4,192,925
	Water Valves	973	75	CPI Tables	\$11,145,340
	Water Treatment Plant	6	20 – 75	CPI Tables	\$5,097,150
	Water Mains CI 50-500mm	42,799m	50	CPI Tables	\$23,182,142
	Water Mains Copper – 19-100mm	3,338m	50	CPI Tables	\$1,754,220
	Water Mains DI 100-500mm	12,585m	60	CPI Tables	\$7,470,003
	Water Mains HDPE 38-400mm	11,356m	75	CPI Tables	\$9,847,668
	Water Mains LDPE 25-60mm	3,938m	75	CPI Tables	\$2,093,290
	Water Mains PE 25-400mm	10,709m	75	CPI Tables	\$6,549,645
	Water Mains PVC 25-350mm	41,764m	75	CPI Tables	\$25,119,148
	Water Mains (Unknown Material)	6m	50 – 75	CPI Tables	\$1,372,829
Miscellaneous	3	15 - 25	CPI Tables	\$325,469	
Total					\$111,315,881

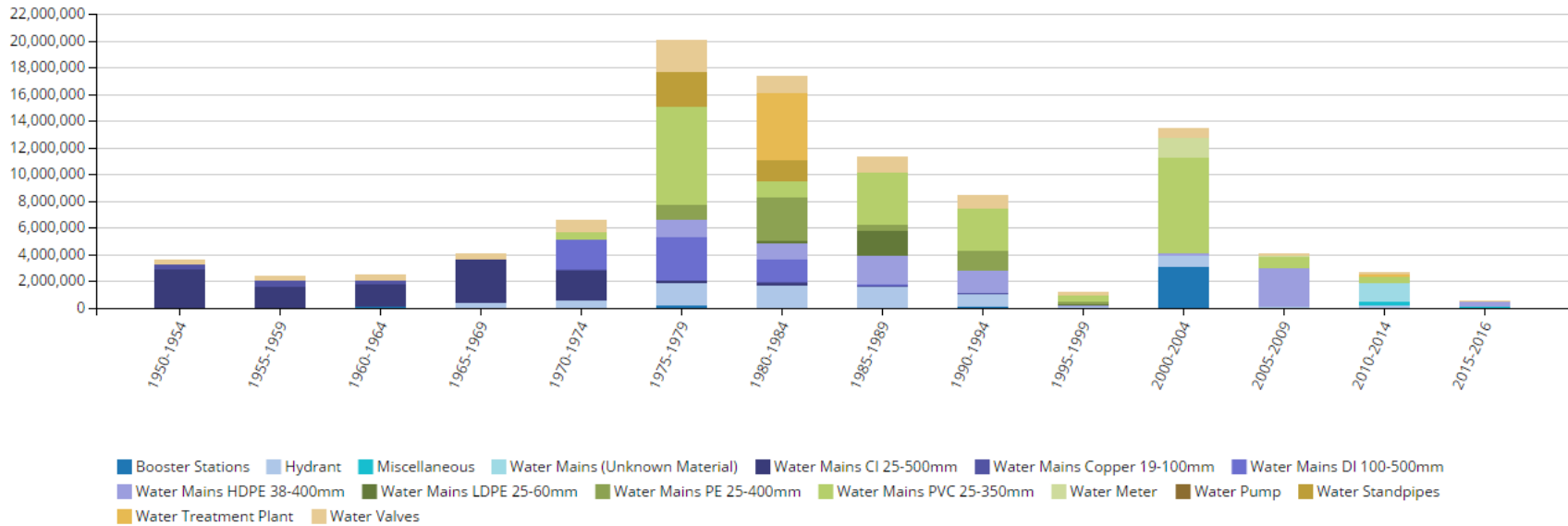
Figure 21 Asset Valuation – Water System



### 3.2 Historical Investment in Infrastructure

Figure 22 shows the municipality’s historical investments in its water system since 1950 based on 2016 replacement cost. While observed condition data will provide superior accuracy in estimating replacement needs and should be incorporated into strategic plans, in the absence of such information, understanding past expenditure patterns and current useful life consumption levels (Section 3.3) can inform the forecasting and planning of short-, medium- and long-term replacement needs.

Figure 22 Historical Investment – Water System

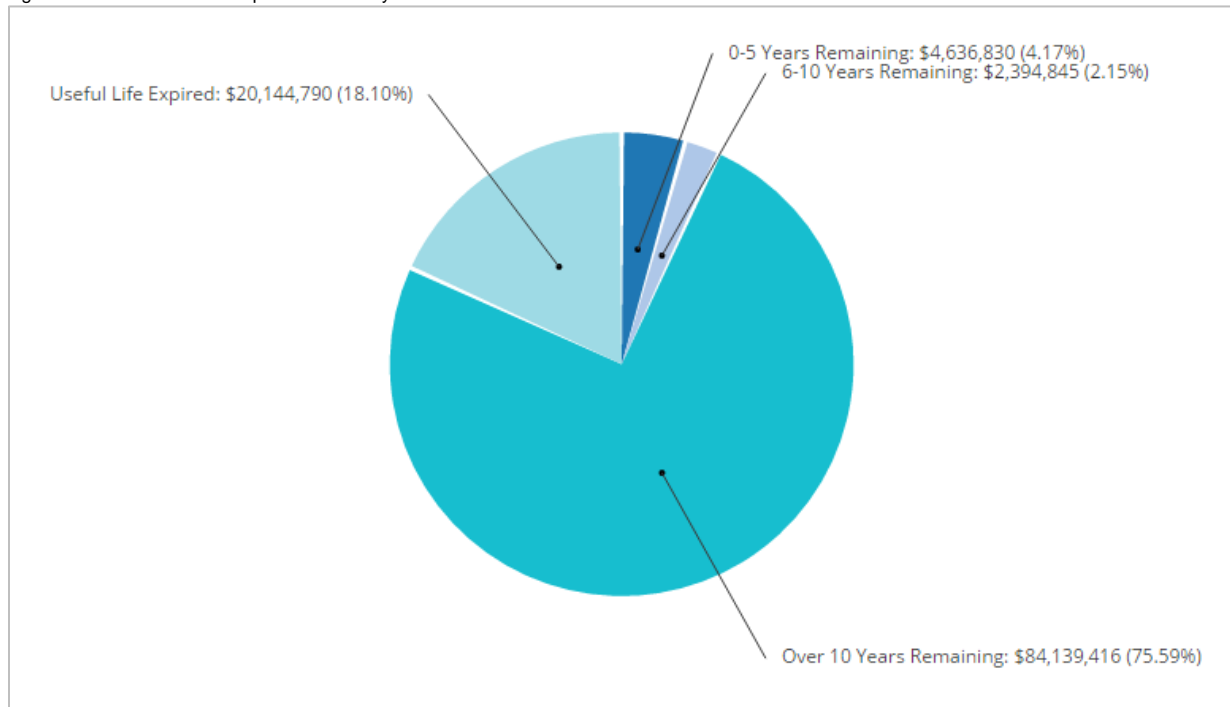


Investments in water gradually increased until the mid-1970s; expenditures peaked at \$20 million between 1975-1979. Since 2000, the municipality has invested \$21 million in its water system, primarily in water mains PVC 25-350mm. Note that many of these assets were transferred from the Province and not built as new assets by the municipality.

### 3.3 Useful Life Consumption

In this section, we detail the extent to which assets have consumed their useful life based on the above, established useful life standards. In conjunction historical spending patterns, observed condition data, understanding the consumption rate of assets based on industry established useful life measures provides a more complete profile of the state of a community's infrastructure. Figure 23 illustrates the useful life consumption levels as of 2015 for the municipality's water system.

Figure 23 Useful Life Consumption – Water System

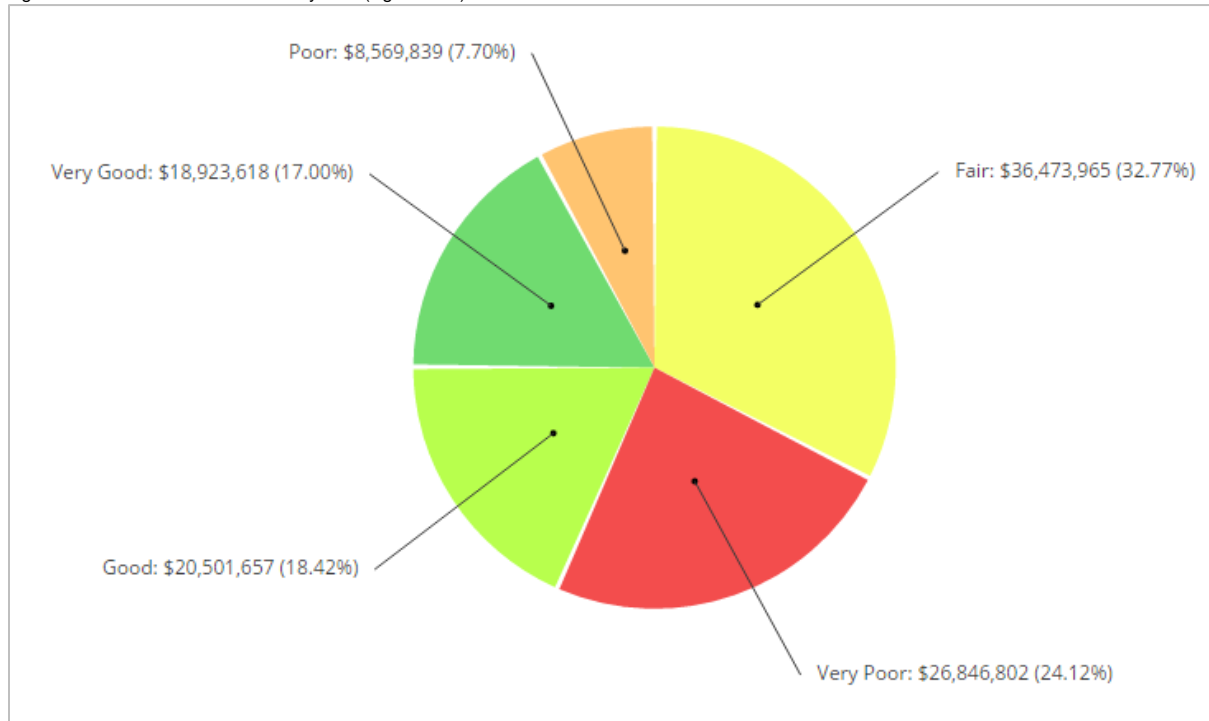


While more than 75% of the assets have at least 10 years of useful life remaining, 18%, with a valuation of \$20 million, remain in operation beyond their useful life. An additional 4% will reach the end of their useful life in the next five years.

### 3.4 Current Asset Condition

Using replacement cost, in this section, we summarize the condition of the municipality's water services. By default, we rely on observed field data as provided by the municipality. In the absence of such information, age-based data is used as a proxy. The municipality has not provided condition data for its water system.

Figure 24 Asset Condition – Water System (Age-based)

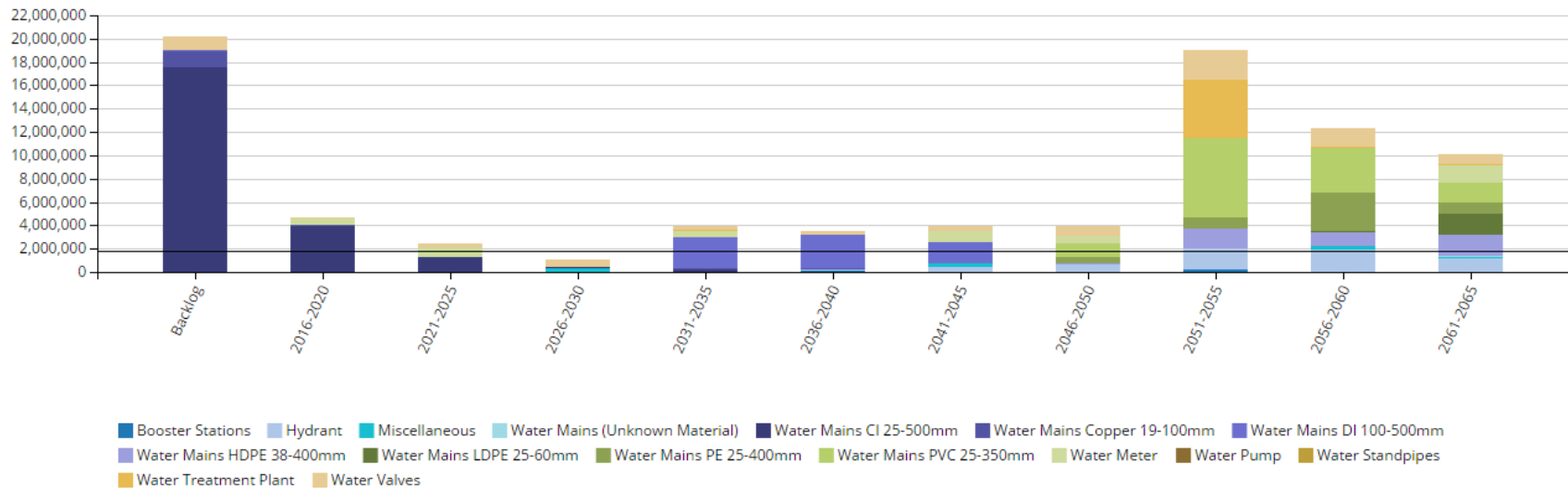


While 35% of assets are in good to very good condition, 32%, with a valuation of \$35 million, are in poor to very poor condition.

### 3.5 Forecasting Replacement Needs

In this section, we illustrate the short-, medium- and long-term infrastructure spending requirements (replacement only) for the municipality’s water system assets. The backlog is the aggregate investment in infrastructure that was deferred over previous years or decades. In the absence of observed data, the backlog represents the value of assets that remain in operation beyond their useful life.

Figure 25 Forecasting Replacement Needs – Water System



In addition to an age-based backlog of \$20 million, the municipality’s replacement needs total \$4.6 million in the next five years. An additional \$2.4 million will be required between 2021-2025. The municipality’s annual requirements (indicated by the black line) for its water system total \$1.7 million. At this funding level, the municipality is allocating sufficient funds on an annual basis to meet replacement needs as they arise without the need for deferring projects and accruing annual infrastructure deficits. However, the municipality is currently allocating \$1.2 million, leaving an annual deficit of \$500,000. See the ‘Financial Strategy’ section for achieving a more optimal and sustainable funding level. Further, while fulfilling the annual requirements will position the municipality to meet its future replacement needs, injection of additional revenues will be needed to mitigate existing infrastructure backlogs.



### 3.6 Recommendations – Water System

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- Similar to bridges & culverts, water services are uniquely consequential to a community’s wellbeing. Age-based data suggests a significant infrastructure backlog of \$20 million, and indicates that more than 30% of assets are in poor to very poor condition. As such, the municipality should establish a condition assessment program to more precisely estimate its financial requirements and field needs. See Section 2, ‘Condition Assessment Programs’ in the ‘Asset Management Strategies’ chapter.
- Water distribution system key performance indicators should be established and tracked annually as part of an overall level of service model. See Section VII ‘Levels of Service’.
- The municipality should assess its short-, medium- and long-term capital, and operations and maintenance needs.
- An appropriate percentage of the replacement costs should then be allocated for the municipality’s O&M requirements.
- The municipality is funding 70% of its long-term requirements on an annual basis. See the ‘Financial Strategy’ section on how to achieve more sustainable and optimal funding levels.

## 4. Waste Water

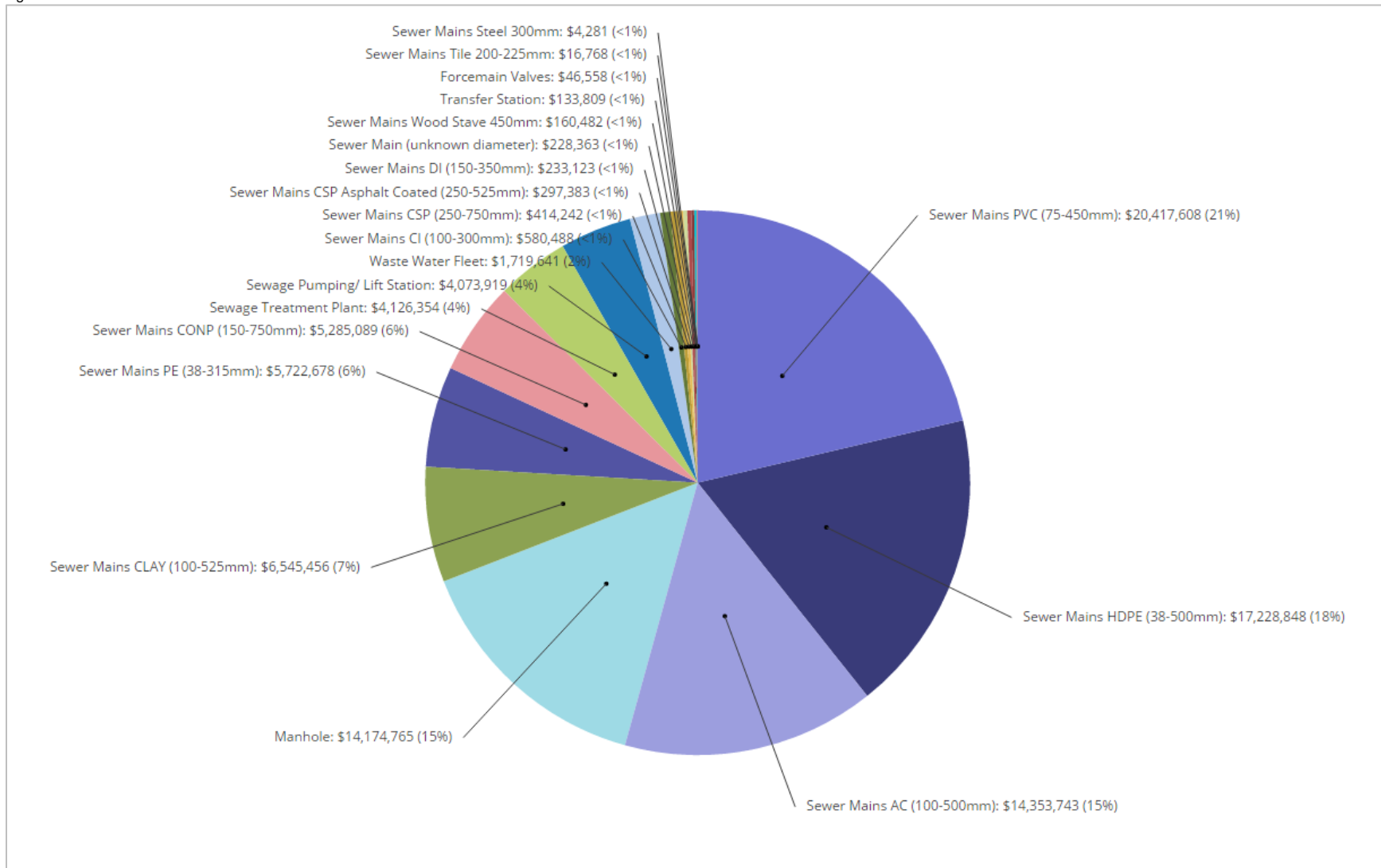
### 4.1 Asset Portfolio: Quantity, Useful Life and Replacement Cost

Table 9 illustrates key asset attributes for the municipality's waste water assets, including quantities of various assets, their useful life, replacement costs, and the valuation method by which the replacement costs were derived. In total, the municipality's waste water services assets are valued at \$95.8 million based on 2016 replacement costs. The useful life indicated for the asset types below was assigned by the municipality.

Table 9 Key Asset Attributes – Waste Water Services

Asset Type	Asset Component	Quantity	Useful Life in Years	Valuation Method	2016 Replacement Cost
Waste Water Services	Sewage Pumping/ Lift Station	68	75	CPI Tables	\$4,073,919
	Sewage Treatment Plant	14	20 – 75	CPI Tables	\$4,126,354
	Transfer Station	3	5 – 25	CPI Tables	\$133,809
	Manhole	1218	50	CPI Tables	\$14,174,765
	Waste Water Fleet	22	8 to 15	CPI Tables	\$1,719,639
	Sewer Mains (Unknown Diameter)	1	50	CPI Tables	\$228,363
	Sewer Mains AC (100-500mm)	26,920m	50	CPI Tables	\$14,353,743
	Sewer Mains CI (100-300mm)	1,304m	50	CPI Tables	\$580,488
	Sewer Mains Clay (100-525mm)	13,188m	50	CPI Tables	\$6,545,456
	Sewer Mains CONP (150-750mm)	9,307m	100	CPI Tables	\$5,285,089
	Sewer Mains CSP (250-750mm)	573m	25	CPI Tables	\$414,242
	Sewer Mains CSP Asphalt Coated (250-525mm)	422m	25	CPI Tables	\$297,383
	Sewer Mains DI (150-350mm)	476m	100	CPI Tables	\$233,123
	Sewer Mains HDPE (38-500mm)	26,696m	100	CPI Tables	\$17,228,848
	Sewer Mains PE (38-315mm)	8,926m	100	CPI Tables	\$5,722,678
	Sewer Mains PVC (75-450mm)	35,054m	75	CPI Tables	\$20,417,608
	Sewer Mains Tile (200-225mm)	35m	50	CPI Tables	\$16,768
	Sewer Mains Steel (300mm)	7m	25	CPI Tables	\$4,281
Sewer Mains Wood Stave (450mm)	226m	50	CPI Tables	\$160,482	
Forcemain Valves	4	50	CPI Tables	\$46,558	
Total					\$95,763,596

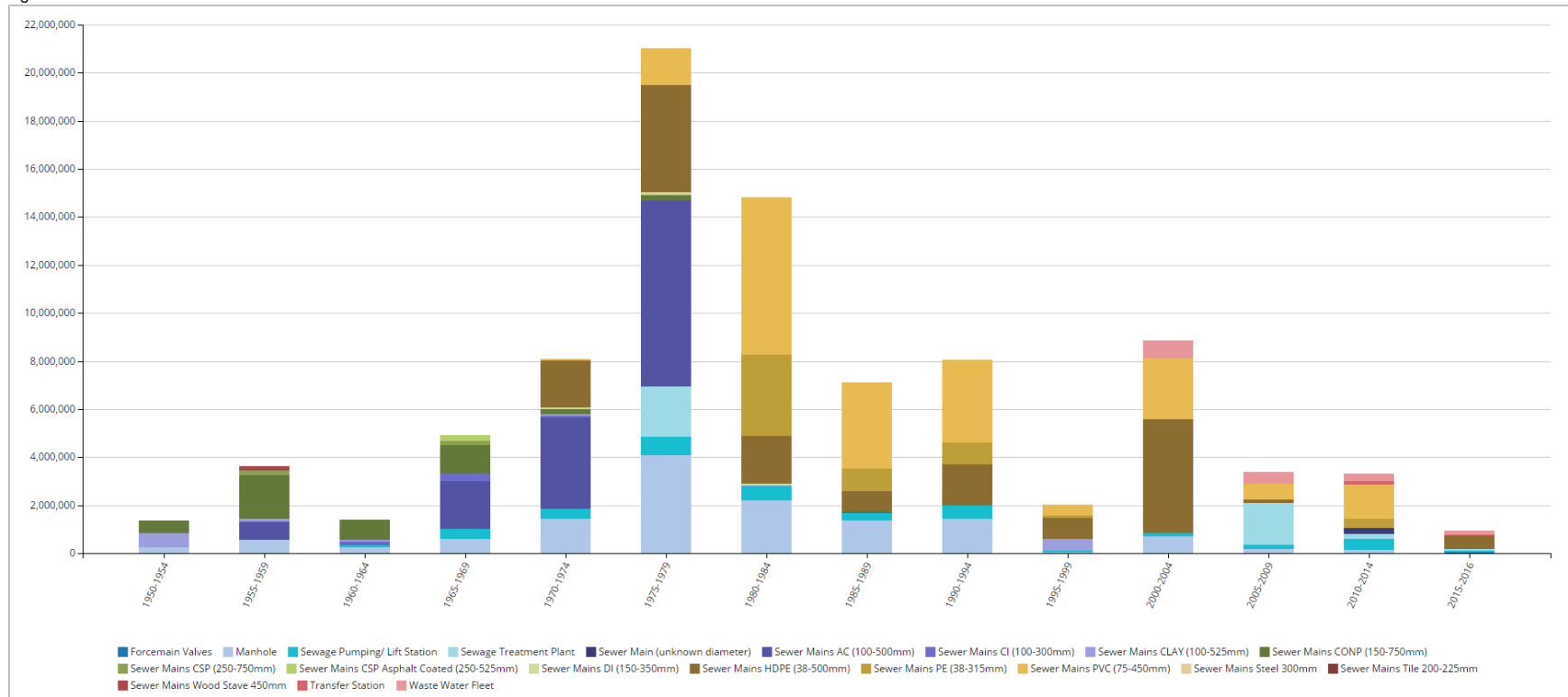
Figure 26 Asset Valuation – Waste Water Services



## 4.2 Historical Investment in Infrastructure

Figure 27 shows the municipality’s historical investments in its waste water services since 1950 based on 2016 replacement cost. While observed condition data will provide superior accuracy in estimating replacement needs and should be incorporated into strategic plans, in the absence of such information, understanding past expenditure patterns and current useful life consumption levels (Section 4.3) can inform the forecasting and planning of short-, medium- and long-term replacement needs.

Figure 27 Historical Investment – Waste Water Services

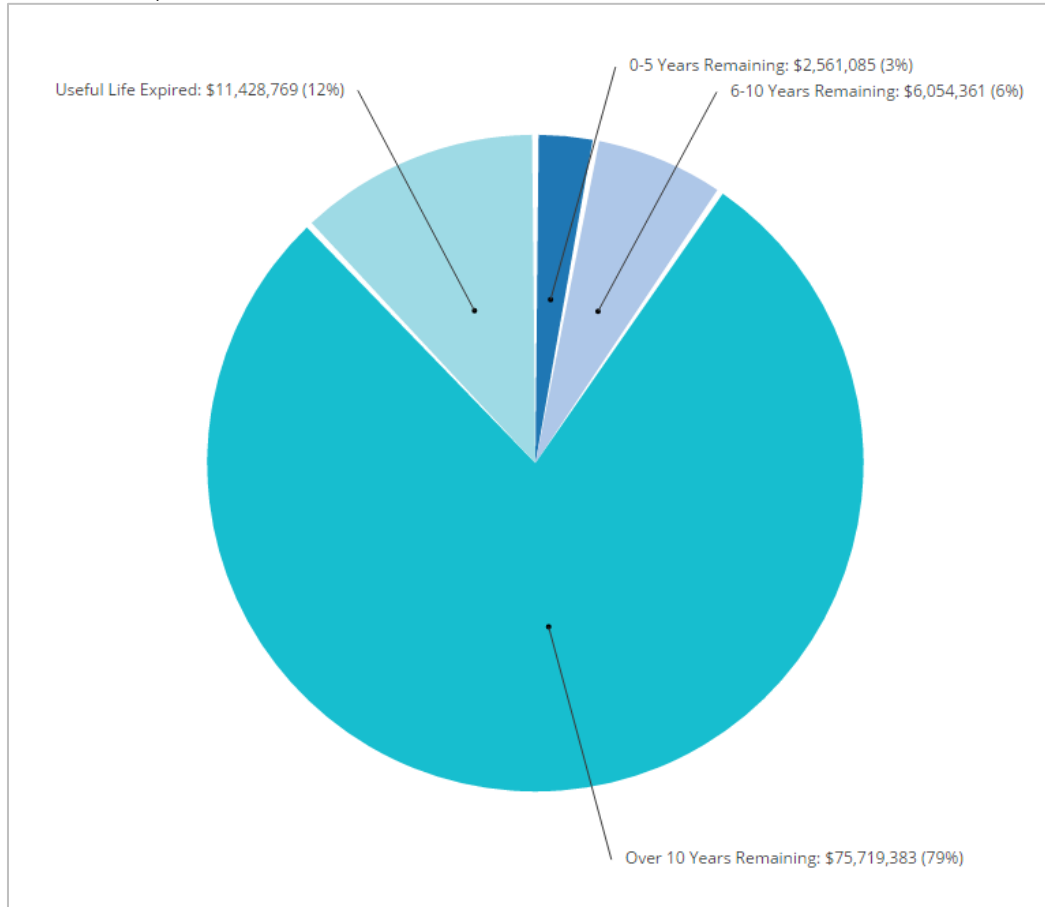


Investments in waste water assets have fluctuated over the decades. Between 1975-1979, the period of the largest investment in waste water services, expenditures totaled \$21 million. Since 2000, the municipality has invested \$16 million, primarily in mains treatment plant assets.

### 4.3 Useful Life Consumption

In this section, we detail the extent to which assets have consumed their useful life based on the above, established useful life standards. In conjunction historical spending patterns, observed condition data, understanding the consumption rate of assets based on industry established useful life measures provides a more complete profile of the state of a community's infrastructure. Figure 28 illustrates the useful life consumption levels as of 2015 for the municipality's waste water services.

Figure 28 Useful Life Consumption – Waste Water Services

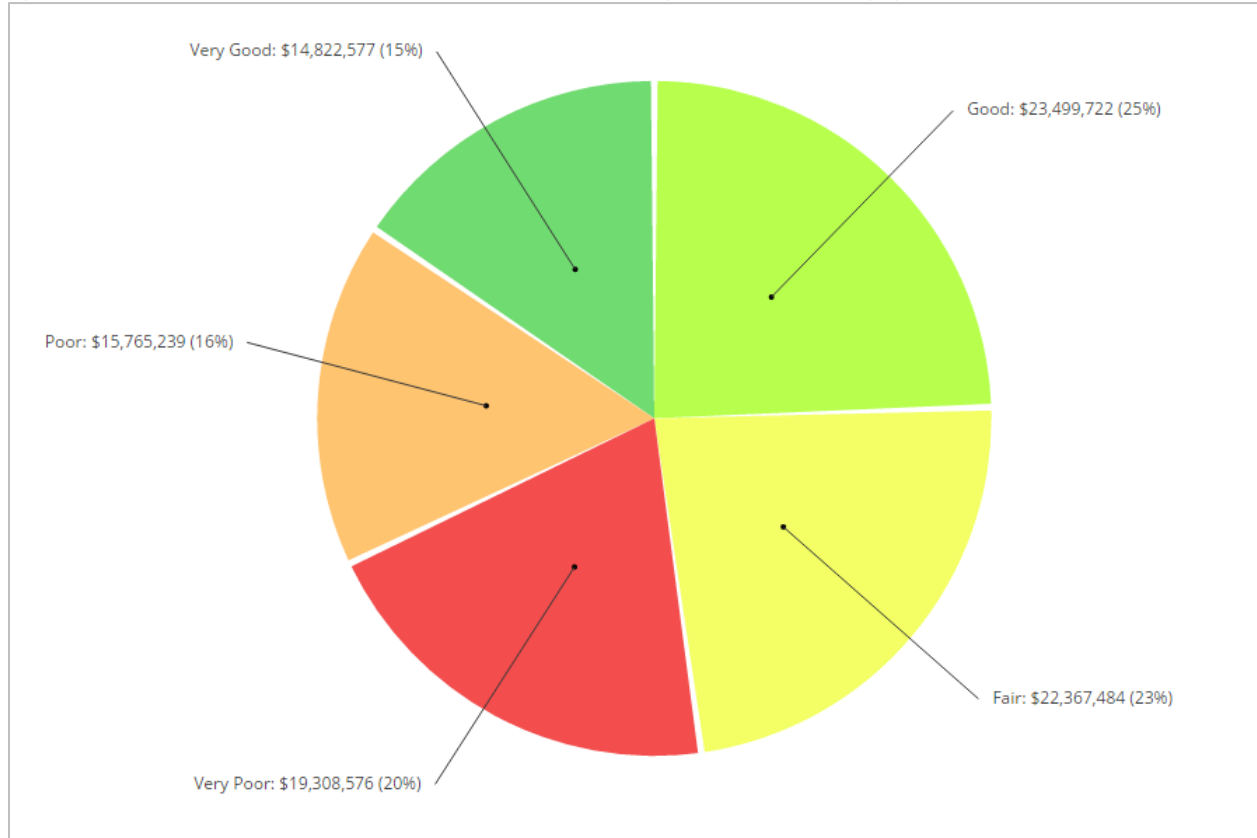


While nearly 80% of the assets have at least 10 years of useful life remaining, 12%, with a valuation of \$11 million, remain in operation beyond their useful life. An additional 3% will reach the end of their useful life in the next five years.

## 4.4 Current Asset Condition

Using replacement cost, in this section, we summarize the condition of the municipality's waste water services as of 2015. By default, we rely on observed field data as provided by the municipality. In the absence of such information, age-based data is used as a proxy. The municipality has not provided condition data for its waste water assets.

Figure 29 Asset Condition – Waste Water Services (Partially Assessed: Pumping/Lift Stations; Remaining age-based)

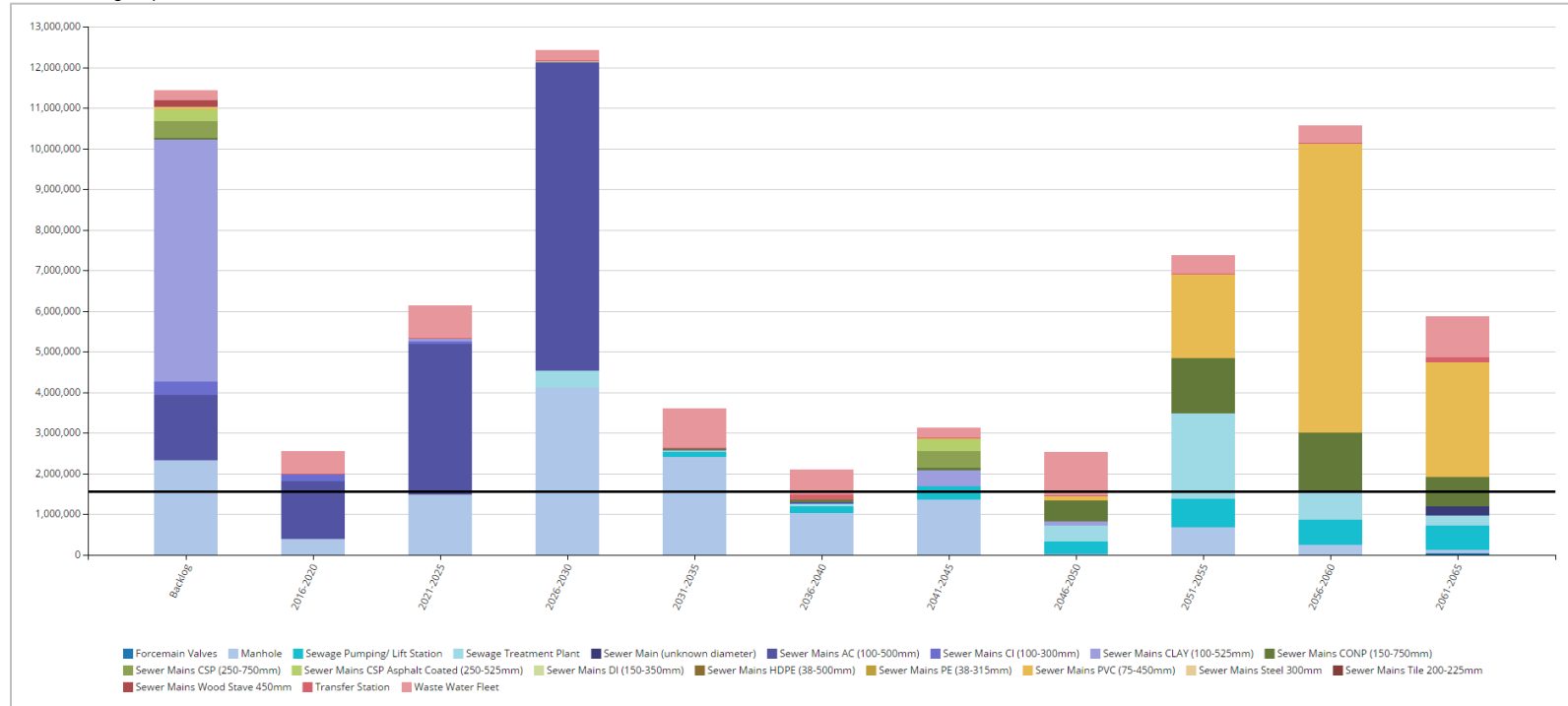


Based on a blend of age and assessed condition data, 40% of the assets are in good to very good condition. However, 36%, with a valuation of \$35 million, are in poor to very poor condition.

## 4.5 Forecasting Replacement Needs

In this section, we illustrate the short-, medium- and long-term infrastructure spending requirements (replacement only) for the municipality’s waste water services assets. The backlog is the aggregate investment in infrastructure that was deferred over previous years or decades. In the absence of observed data, the backlog represents the value of assets that remain in operation beyond their useful life.

Figure 30 Forecasting Replacement Needs – Waste Water Services



In addition to a backlog of \$11.4 million, the municipality’s replacement needs total \$2.5 million in the next five years. An additional \$6.1 million will be required between 2021-2025. The municipality’s annual requirements (indicated by the black line) for its waste water assets total \$1.6 million. At this level, funding is sustainable and replacement needs can be met as they arise without the need for deferring projects. The municipality is currently allocating \$700,000, leaving an annual deficit of \$900,000. See the ‘Financial Strategy’ section for achieving a more optimal and sustainable funding level. Further, while fulfilling the annual requirements will position the municipality to meet its future replacement needs, injection of additional revenues will be needed to mitigate existing infrastructure backlogs.

## 4.6 Recommendations – Waste Water

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- Age-based data indicates that, in addition a backlog of \$11.4 million, 36% of assets are in poor to very poor condition. The municipality should establish a condition assessment program to better define actual asset health and field needs; this will assist in the prioritization of the short- and long-term capital budget. See Section 2, ‘Condition Assessment Programs’ in the ‘Asset Management Strategies’ chapter.
- Over time, the municipality should establish a systematic lifecycle activity framework that reflects the consumption of its waste water assets. See Section 3, ‘Lifecycle Analysis Framework’ in the ‘Asset Management Strategies’ chapter.
- Waste water collection system key performance indicators should be established and tracked annually as part of an overall level of service model. See Section VII ‘Levels of Service’.
- The municipality should assess its short-, medium- and long-term operations and maintenance needs. An appropriate percentage of the replacement costs should then be allocated for the municipality’s O&M requirements.
- The municipality is funding 47% of its long-term requirements on an annual basis. See the ‘Financial Strategy’ section on how to achieve more sustainable and optimal funding levels.



## 5. Storm

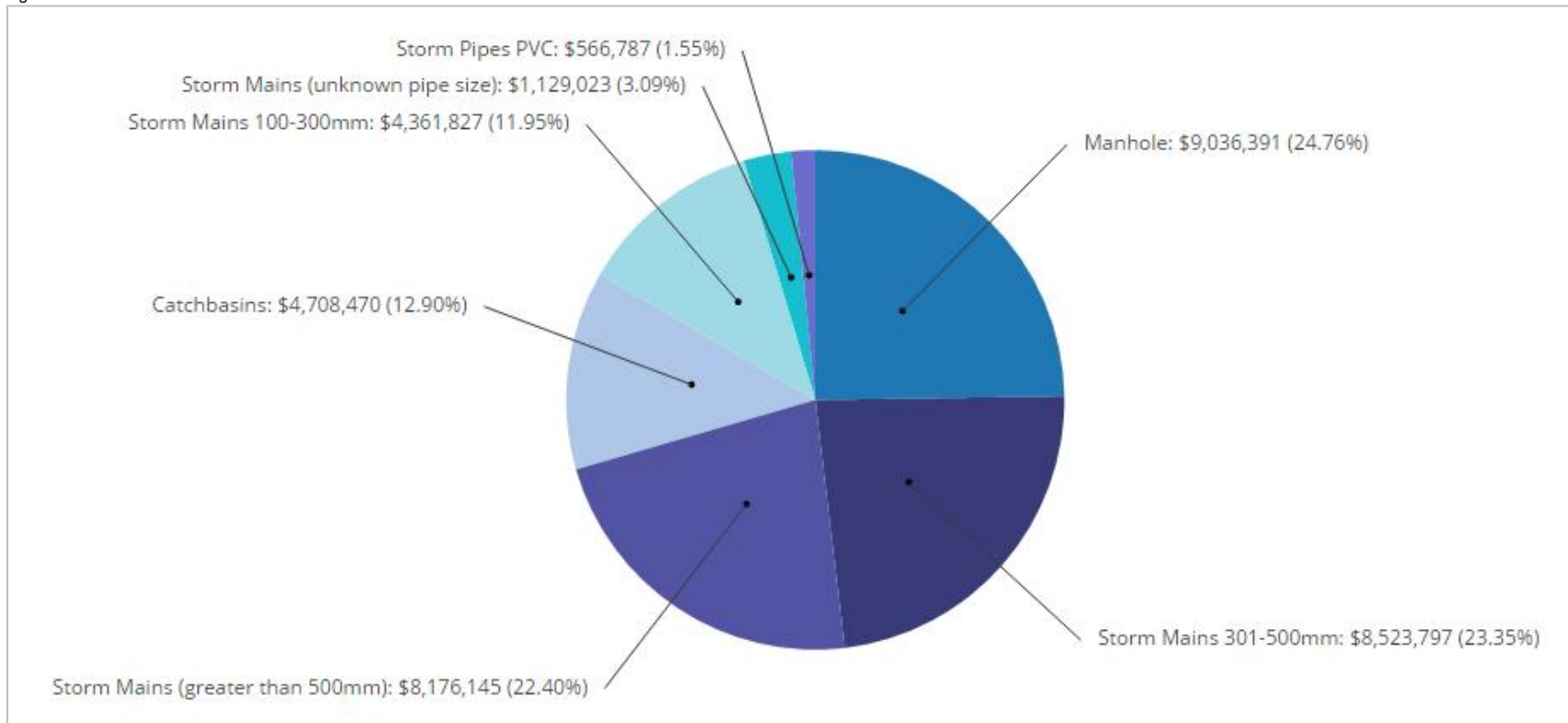
### 5.1 Asset Portfolio: Quantity, Useful Life and Replacement Cost

Table 10 illustrates key asset attributes for the municipality's storm assets, including quantities of various assets, their useful life, their replacement cost, and the valuation method by which the replacement costs were derived. In total, the municipality's storm water assets are valued at \$37 million based on 2016 replacement costs. The useful life indicated for the asset types below was assigned by the municipality.

Table 10 Key Asset Attributes – Storm

Asset Type	Asset Component	Quantity	Useful Life in Years	Valuation Method	2016 Replacement Cost
Storm	Catchbasins	557	50	CPI Tables	\$4,708,470
	Storm Manholes	665	50	CPI Tables	\$9,036,391
	Storm Pipes PVC	84	25 – 50	CPI Tables	\$566,787
	Storm Mains 100-300mm	7,770m	50	CPI Tables	\$4,361,827
	Storm Mains 301-500mm	11,166m	50	CPI Tables	\$8,523,797
	Storm Mains (Greater than 500mm)	8,842m	50	CPI Tables	\$8,176,145
	Storm Mains (Unknown Pipe Size)	82m	50	CPI Tables	\$1,129,023
Total					\$36,502,440

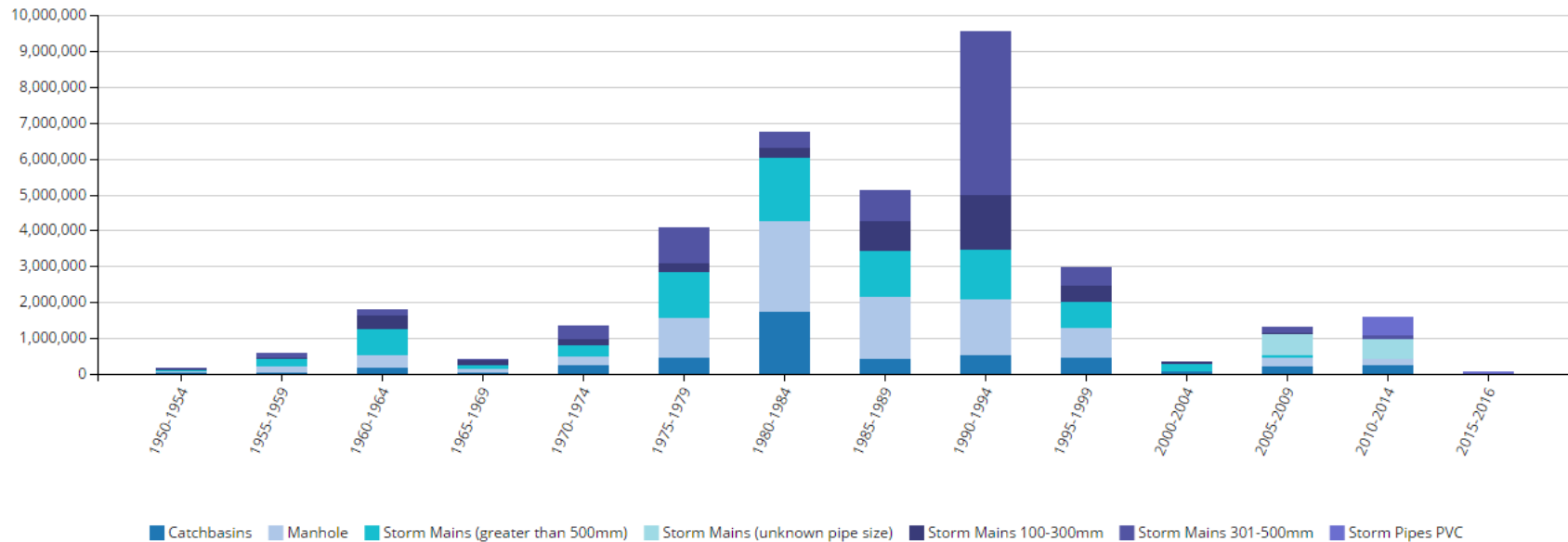
Figure 31 Asset Valuation – Storm



## 5.2 Historical Investment in Infrastructure

Figure 32 shows the municipality's historical investments in its storm system since 1950 based on 2016 replacement cost. While observed condition data will provide superior accuracy in estimating replacement needs and should be incorporated into strategic plans, in the absence of such information, understanding past expenditure patterns and current useful life consumption levels (Section 5.3) can inform the forecasting and planning of short-, medium- and long-term replacement needs.

Figure 32 Historical Investment – Storm

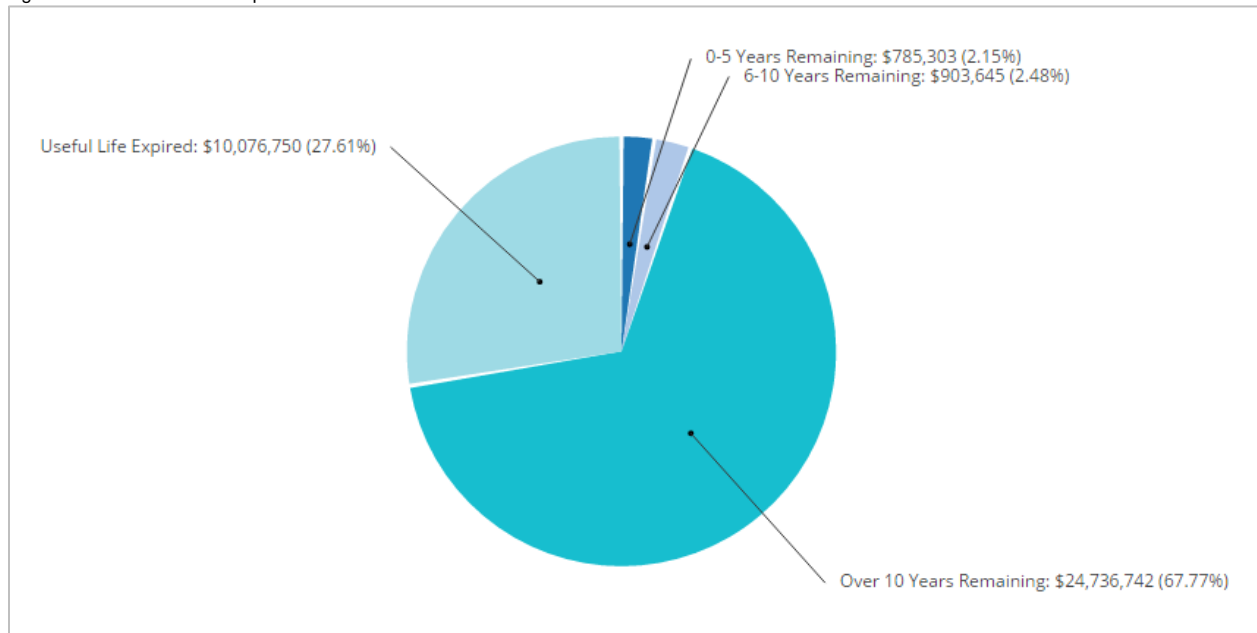


The municipality has invested consistently in its storm assets since the 1950s, with major investments occurring throughout the 1970s and early 1990s. Between 1990-1994, the period of the largest investments in storm assets, expenditures totaled \$9.5 million. Since 2000, the municipality has invested \$3.3 million.

### 5.3 Useful Life Consumption

In this section, we detail the extent to which assets have consumed their useful life based on the above, established useful life standards. In conjunction historical spending patterns, observed condition data, understanding the consumption rate of assets based on industry established useful life measures provides a more complete profile of the state of a community's infrastructure. Figure 33 illustrates the useful life consumption levels as of 2015 for the municipality's storm assets.

Figure 33 Useful Life Consumption – Storm

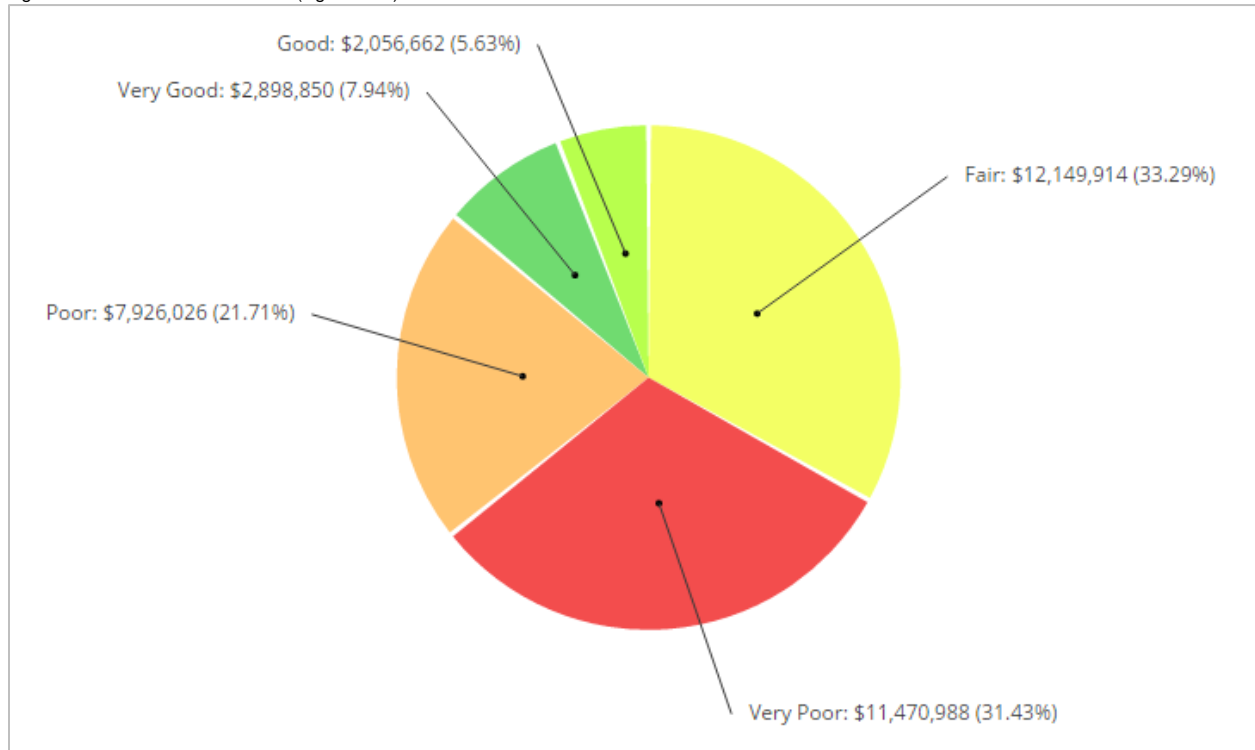


While more than 67% of the assets have at least 10 years of useful life remaining, 28%, with a valuation of \$10 million, remain in operation beyond their useful life. An additional 2% will reach the end of their useful life in the next five years.

## 5.4 Current Asset Condition

Using replacement cost, in this section, we summarize the condition of the municipality's storm services. By default, we rely on observed field data as provided by the municipality. In the absence of such information, age-based data is used as a proxy. The municipality has not provided condition data.

Figure 34 Asset Condition – Storm (Age-based)

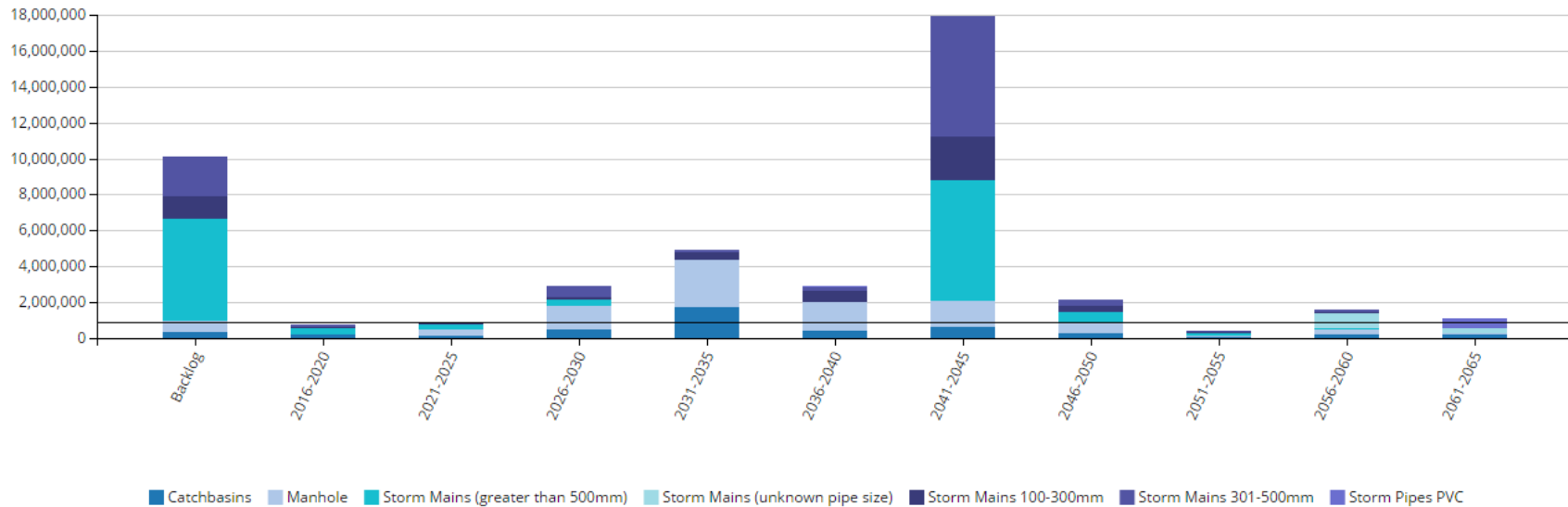


Based on age data, 53% of assets, with a valuation of more than \$19 million, are in poor to very poor condition.

## 5.5 Forecasting Replacement Needs

In this section, we illustrate the short-, medium- and long-term infrastructure spending requirements (replacement only) for the municipality’s storm assets. The backlog is the aggregate investment in infrastructure that was deferred over previous years or decades. In the absence of observed data, the backlog represents the value of assets that remain in operation beyond their useful life.

Figure 35 Forecasting Replacement Needs – Storm



In addition to a backlog of \$10 million, the municipality’s replacement needs total \$3.9 million in the next five years. An additional \$3.9 million will be required between 2021-2025. The municipality’s annual requirements (indicated by the black line) for storm assets total \$916,000. At this funding level, the municipality is allocating sufficient funds on an annual basis to meet replacement needs as they arise without the need for deferring projects and accruing annual infrastructure deficits. The municipality is currently allocating \$150,000, leaving an annual deficit of \$766,000. See the ‘Financial Strategy’ section for achieving a more optimal and sustainable funding level. Further, while fulfilling the annual requirements will position the municipality to meet its future replacement needs, injection of additional revenues will be needed to mitigate existing infrastructure backlogs.

## 5.6 Recommendations – Storm

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- Age-based data indicates a backlog of \$10 million, and suggests that more than 50% of assets are in poor to very poor condition. In time, the municipality should implement a comprehensive condition assessment program that covers all storm sewer assets to further define field needs and to assist the prioritization of the short- and long-term capital budget. See Section 2, ‘Condition Assessment Programs’ in the ‘Asset Management Strategies’ chapter.
- The municipality is funding 16% of its long-term requirements on an annual basis. See the ‘Financial Strategy’ section on how to achieve more sustainable and optimal funding levels.

## 6. Buildings & Facilities

### 6.1 Asset Portfolio: Quantity, Useful Life and Replacement Cost

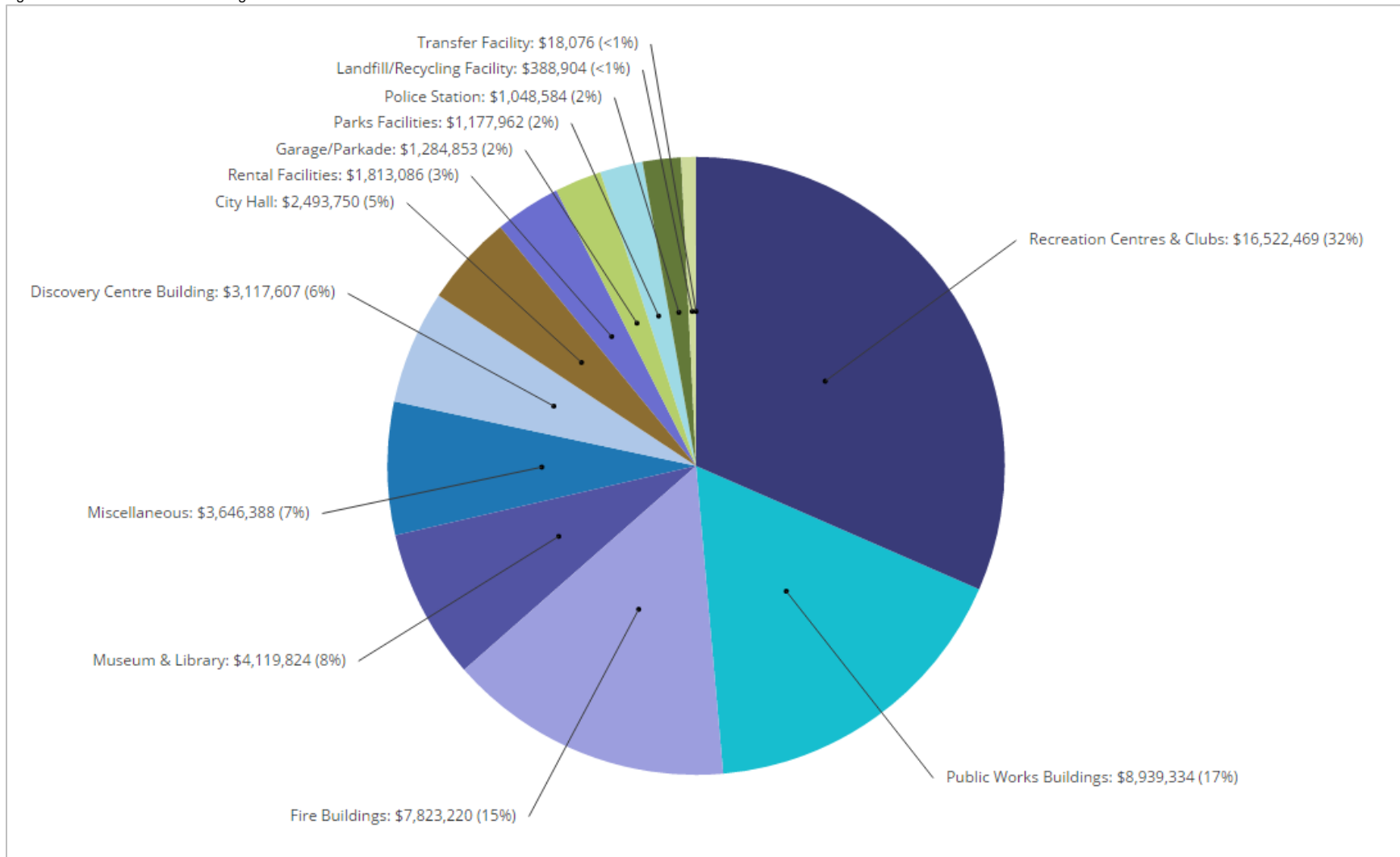
Table 11 illustrates key asset attributes for the municipality's buildings assets, including quantities of various assets, their useful life, their replacement cost, and the valuation method by which the replacement costs were derived. In total, the municipality's buildings assets are valued at \$52 million based on 2016 replacement costs. The useful life indicated for the asset types below was assigned by the municipality.

Table 11 Key Asset Attributes – Buildings & Facilities

Asset Type	Asset Component	Quantity	Useful Life in Years	Valuation Method	2016 Replacement Cost
Buildings	City Hall (structure, electrical, exterior and mechanical)	1	20 – 75	CPI Tables	\$2,493,750
	Discovery Center Building (exterior, elevator, electrical, mechanical, interior and structure)	1	20 – 75	CPI Tables	\$3,117,607
	Fire Building (structure, mechanical, electrical, exterior and interior)	3	20 – 75	CPI Tables	\$7,823,220
	Garage/Parkade (structure)	1	75	CPI Tables	\$1,284,853
	Landfill/Recycling Facility (exterior, structure, electrical and interior)	5	10 – 75	CPI Tables	\$388,904
	Museum and Library (structure, exterior and mechanical)	13	20 – 75	CPI Tables	\$4,119,824
	Miscellaneous (fabric tent, structure, mechanical, interior and security systems)	11	15 – 75	CPI Tables	\$3,646,388
	Parks Facilities (structure, interior, exterior, mechanical and electrical)	29	10 – 75	CPI Tables	\$1,177,962
	Police Station (structure and mechanical)	3	20 – 75	CPI Tables	\$1,048,584
	Public Works Building (shed, structure, HVAC, security, interior and electrical)	11	10 – 75	CPI Tables	\$8,939,334
	Recreation Centres and Clubs (structure, interior, exterior, mechanical and electrical)	31	10 – 75	CPI Tables	\$16,522,469
	Rental Facilities (structure)	17	10 – 75	CPI Tables	\$1,813,086
	Transfer Facility (shed)	2	10	CPI Tables	\$18,076
Total					\$52,394,057



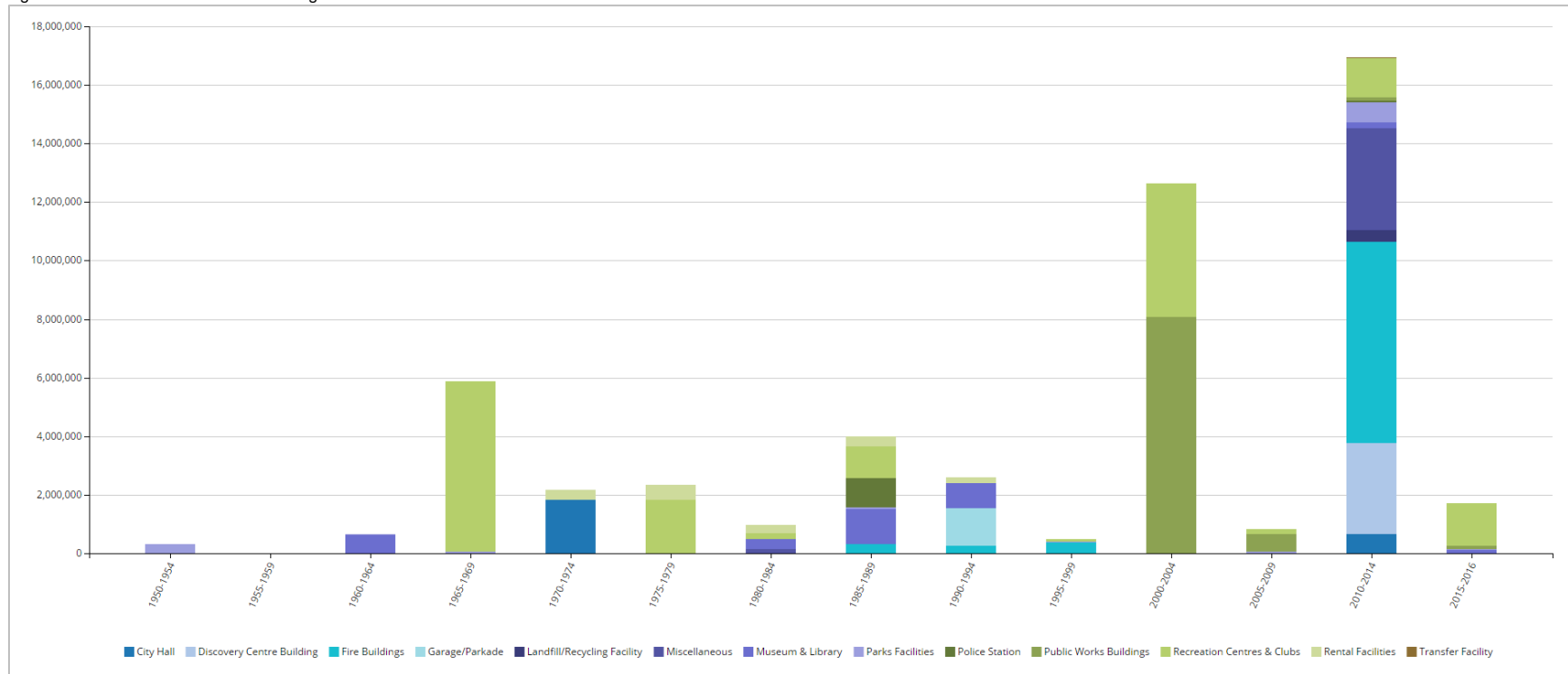
Figure 36 Asset Valuation – Buildings & Facilities



## 6.2 Historical Investment in Infrastructure

Figure 37 shows the municipality's historical investments in its buildings since 1950 based on 2016 replacement cost. While observed condition data will provide superior accuracy in estimating replacement needs and should be incorporated into strategic plans, in the absence of such information, understanding past expenditure patterns and current useful life consumption levels (Section 6.3) can inform the forecasting and planning of short-, medium- and long-term replacement needs.

Figure 37 Historical Investment – Buildings & Facilities

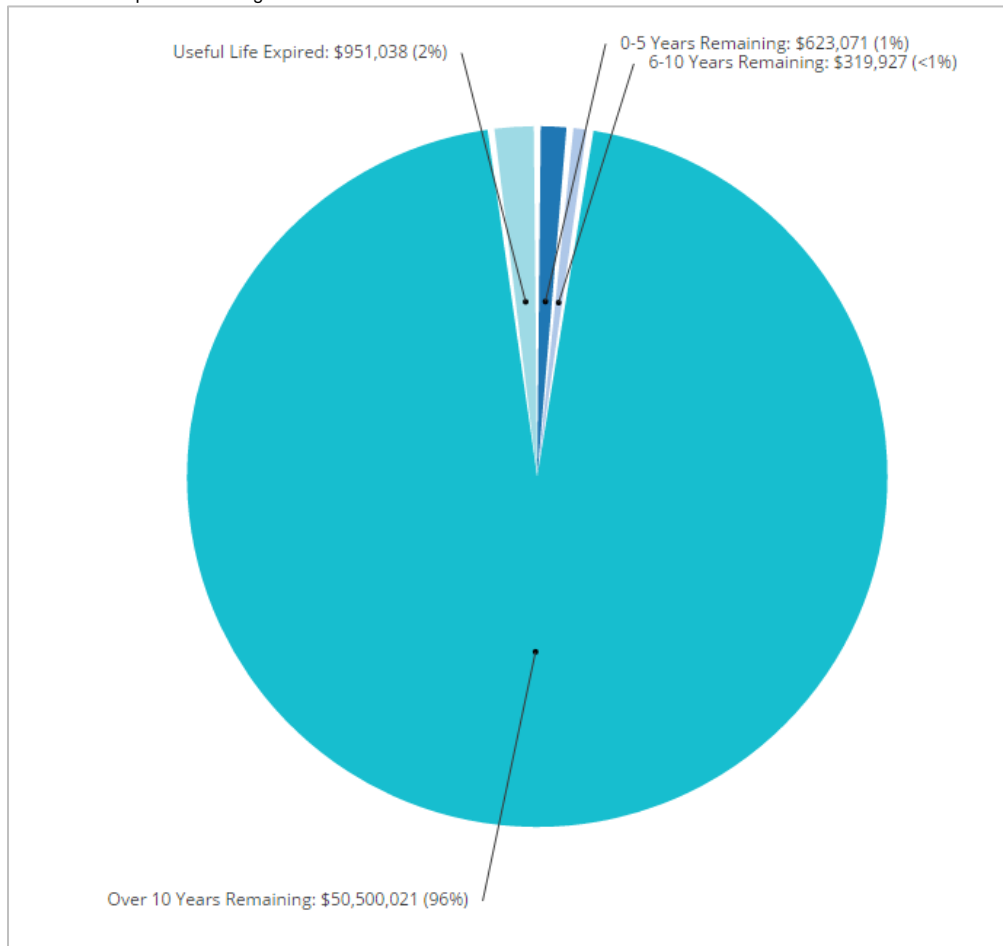


The municipality's expenditures in its building assets have fluctuated over the last six decades. Major investments were not made until the 2000s, peaking at \$17 million between 2010-2014. Since 2015, investments have totaled \$1.7 million.

### 6.3 Useful Life Consumption

In this section, we detail the extent to which assets have consumed their useful life based on the above, established useful life standards. In conjunction historical spending patterns, observed condition data, understanding the consumption rate of assets based on industry established useful life measures provides a more complete profile of the state of a community's infrastructure. Figure 38 illustrates the useful life consumption levels as of 2015 for the municipality's buildings assets.

Figure 38 Useful Life Consumption – Buildings & Facilities

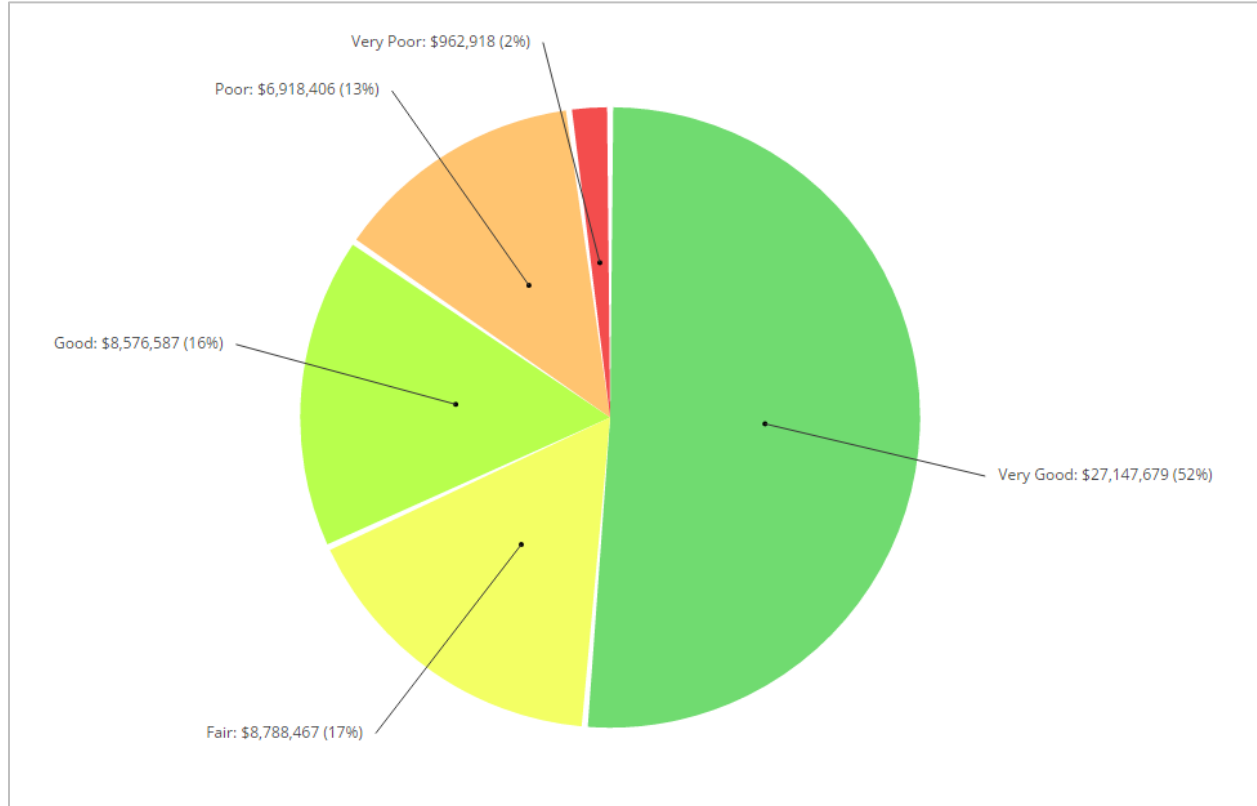


Virtually all buildings assets have at least 10 years of useful life remaining; however, 2%, with a valuation of \$1 million, remain in operation beyond their useful life.

## 6.4 Current Asset Condition

Using replacement cost, in this section, we summarize the condition of the municipality's buildings assets. By default, we rely on observed field data as provided by the municipality. In the absence of such information, age-based data is used as a proxy. The municipality has not provided condition data.

Figure 39 Asset Condition – Buildings & Facilities (Age-based)

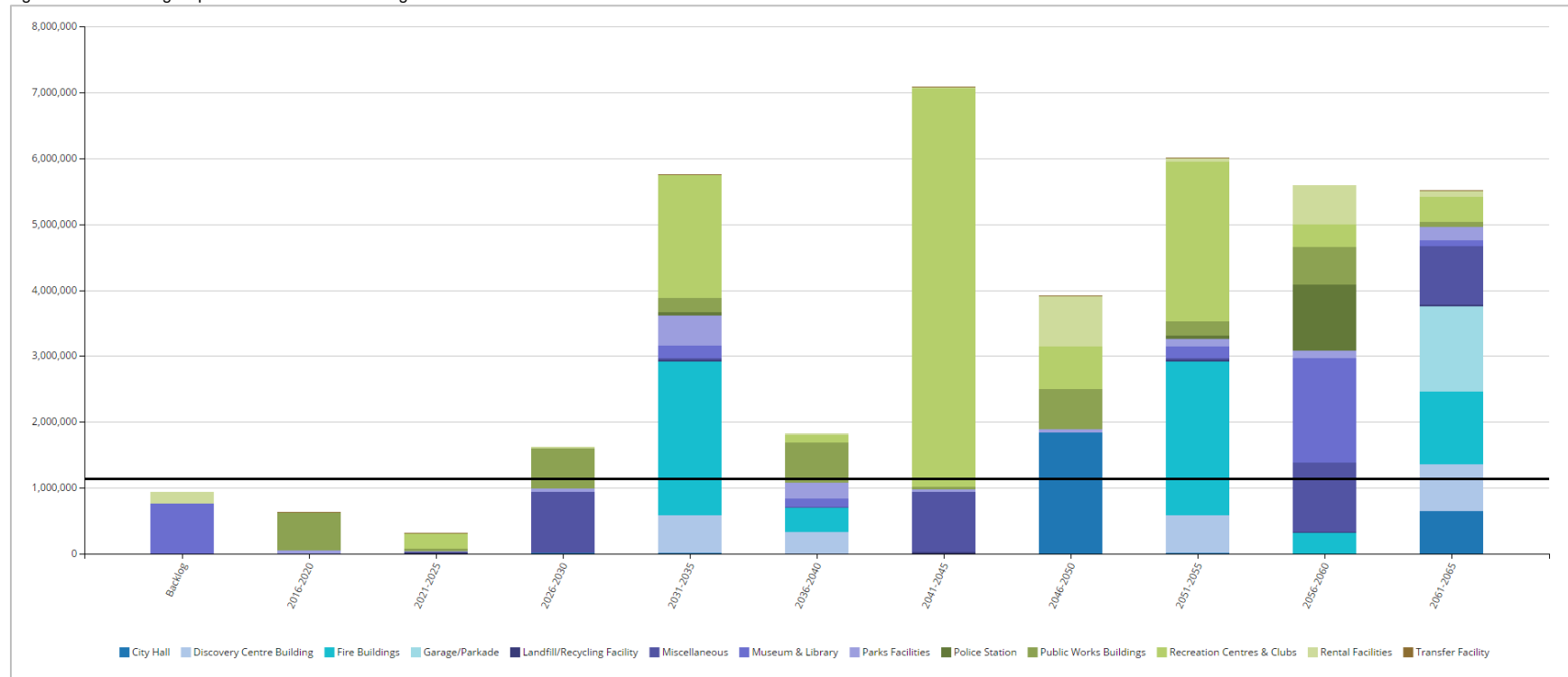


Age-based data indicates that approximately 15% of the buildings assets, with a valuation of \$7.9 million, are in poor to very poor condition; nearly 70% are in good to very good condition.

## 6.5 Forecasting Replacement Needs

In this section, we illustrate the short-, medium- and long-term infrastructure spending requirements (replacement only) for the municipality's buildings assets. The backlog is the aggregate investment in infrastructure that was deferred over previous years or decades. In the absence of observed data, the backlog represents the value of assets that remain in operation beyond their useful life.

Figure 40 Forecasting Replacement Needs – Buildings & Facilities



In addition to a backlog of \$941,000, the municipality's replacement needs total \$633,000 in the next five years. An additional \$320,000 will be required between 2021-2025. The municipality's annual requirements (indicated by the black line) for its buildings total \$1.1 million. At this funding level, the municipality is allocating sufficient funds on an annual basis to meet replacement needs as they arise without the need for deferring projects and accruing annual infrastructure deficits. The municipality is currently allocating \$700,000, leaving an annual deficit of \$400,000. See the 'Financial Strategy' section for achieving a more optimal and sustainable funding level. Further, while fulfilling the annual requirements will position the municipality to meet its future replacement needs, injection of additional revenues will be needed to mitigate existing infrastructure backlogs.

## 6.6 Recommendations – Buildings & Facilities

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- The municipality should implement a component based condition inspection program for its facilities. See Section 2, 'Condition Assessment Programs' in the 'Asset Management Strategies' chapter.
- Using the above information, the municipality should assess its short-, medium- and long-term capital, and operations and maintenance needs.
- An appropriate percentage of the replacement costs should then be allocated for the municipality's O&M requirements.
- Facility key performance indicators should be established and tracked annually as part of an overall level of service model. See Chapter VII, 'Levels of Service'.
- The municipality is funding 62% of its long-term requirements on an annual basis. See the 'Financial Strategy' section on how to achieve more sustainable and optimal funding levels.

## 7. Machinery & Equipment

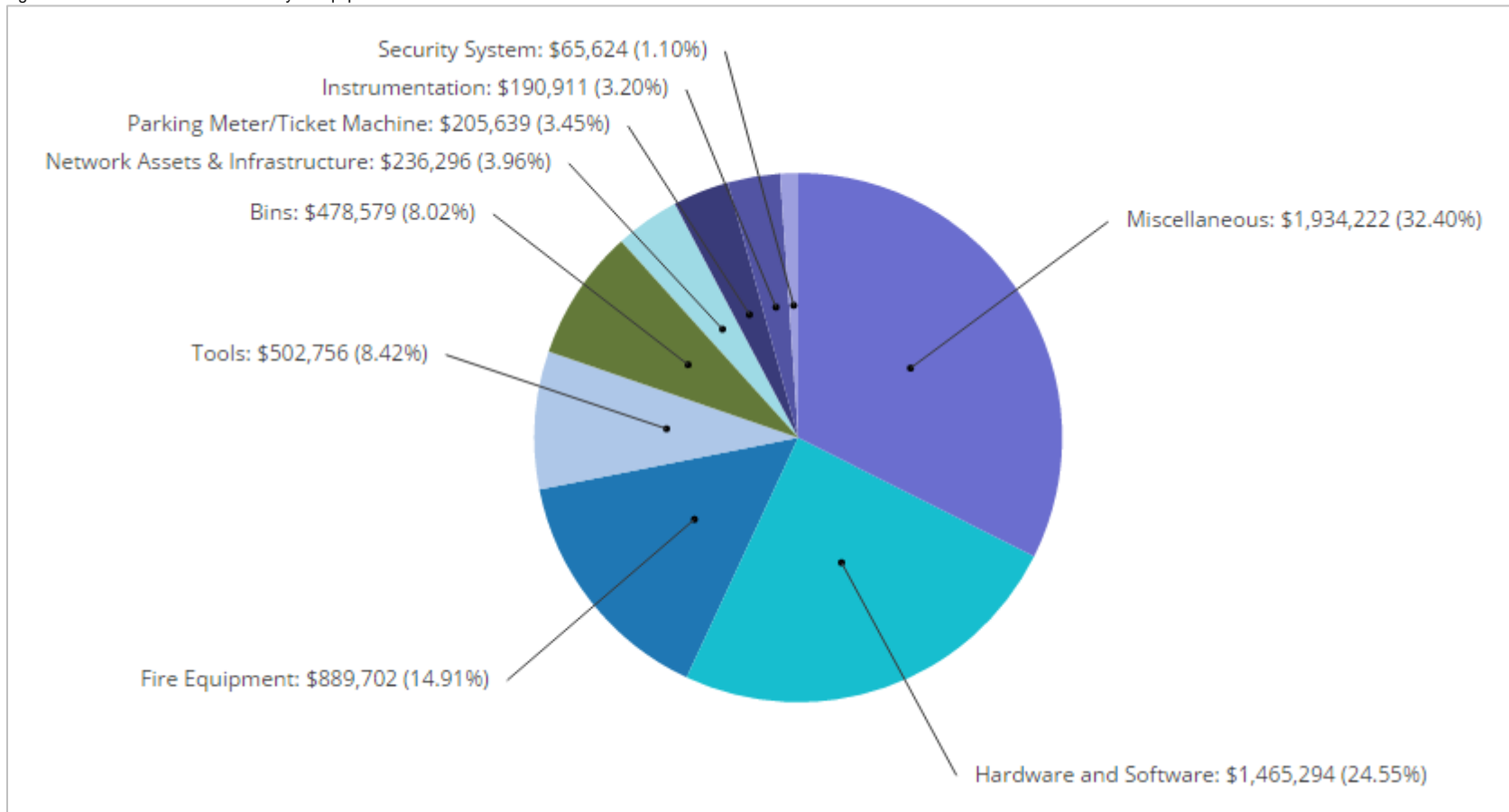
### 7.1 Asset Portfolio: Quantity, Useful Life and Replacement Cost

Table 12 illustrates key asset attributes for the municipality's machinery & equipment assets, including quantities of various assets, their useful life, their replacement cost, and the valuation method by which the replacement costs were derived. In total, the municipality's machinery & equipment assets are valued at \$6 million based on 2016 replacement costs. The useful life indicated for the asset types below was assigned by the municipality and obtained from the municipality's accounting data as maintained in the CityWide® Tangible Asset module.

Table 12 Key Asset Attributes – Machinery & Equipment

Asset Type	Components	Quantity	Useful Life in Years	Valuation Method	2016 Replacement Cost
Machinery & Equipment	Bins	13	10	CPI Tables	\$478,579
	Fire Equipment	199	10	CPI Tables	\$889,702
	Hardware and Software	282	3 - 10	CPI Tables	\$1,465,294
	Instrumentation	3	10	CPI Tables	\$190,911
	Miscellaneous Equipment	67	10	CPI Tables	\$1,888,876
	Network Assets & Infrastructure	50	5	CPI Tables	\$236,296
	Parking Meter/Ticket Machine	397	10 - 25	CPI Tables	\$205,639
	Tools	20	10	CPI Tables	\$548,102
	Security System	3	5	CPI Tables	\$65,624
Total					\$5,969,023

Figure 41 Asset Valuation – Machinery & Equipment

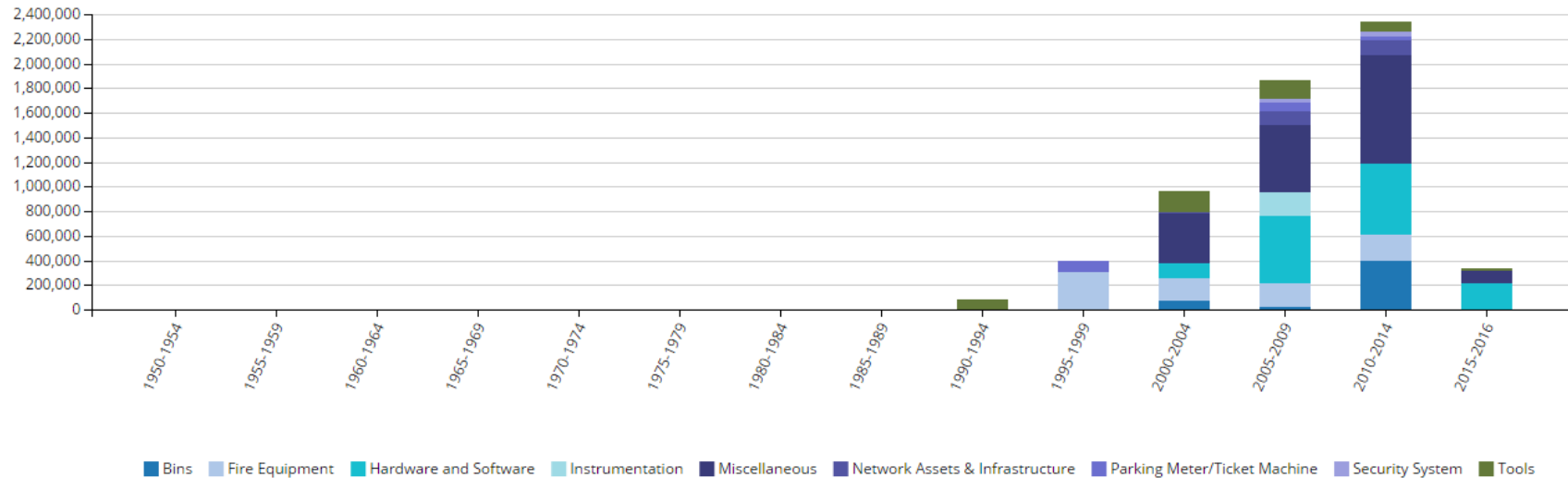




## 7.2 Historical Investment in Infrastructure

Figure 42 shows the municipality’s historical investments in its machinery & equipment since 1950 based on 2016 replacement cost. While observed condition data will provide superior accuracy in estimating replacement needs and should be incorporated into strategic plans, in the absence of such information, understanding past expenditure patterns and current useful life consumption levels (Section 7.3) can inform the forecasting and planning of short-, medium- and long-term replacement needs.

Figure 42 Historical Investment – Machinery & Equipment

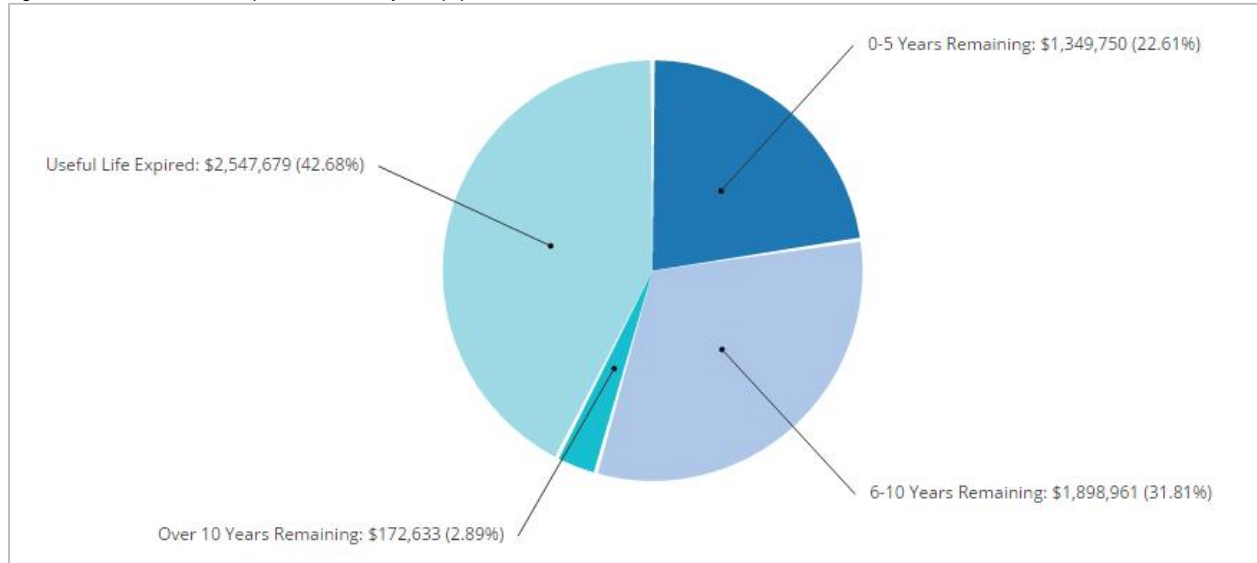


The municipality rapidly expanded its machinery & equipment portfolio beginning in the 1990s, likely due to obsolescence and replacement of existing assets. Between 2010-2014, the period of the largest investment in machinery & equipment, expenditures totaled \$2.3 million. Since 2015, investments have totaled \$329,000.

### 7.3 Useful Life Consumption

In this section, we detail the extent to which assets have consumed their useful life based on the above, established useful life standards. In conjunction historical spending patterns, observed condition data, understanding the consumption rate of assets based on industry established useful life measures provides a more complete profile of the state of a community's infrastructure. Figure 43 illustrates the useful life consumption levels as of 2015 for the municipality's machinery & equipment assets.

Figure 43 Useful Life Consumption – Machinery & Equipment

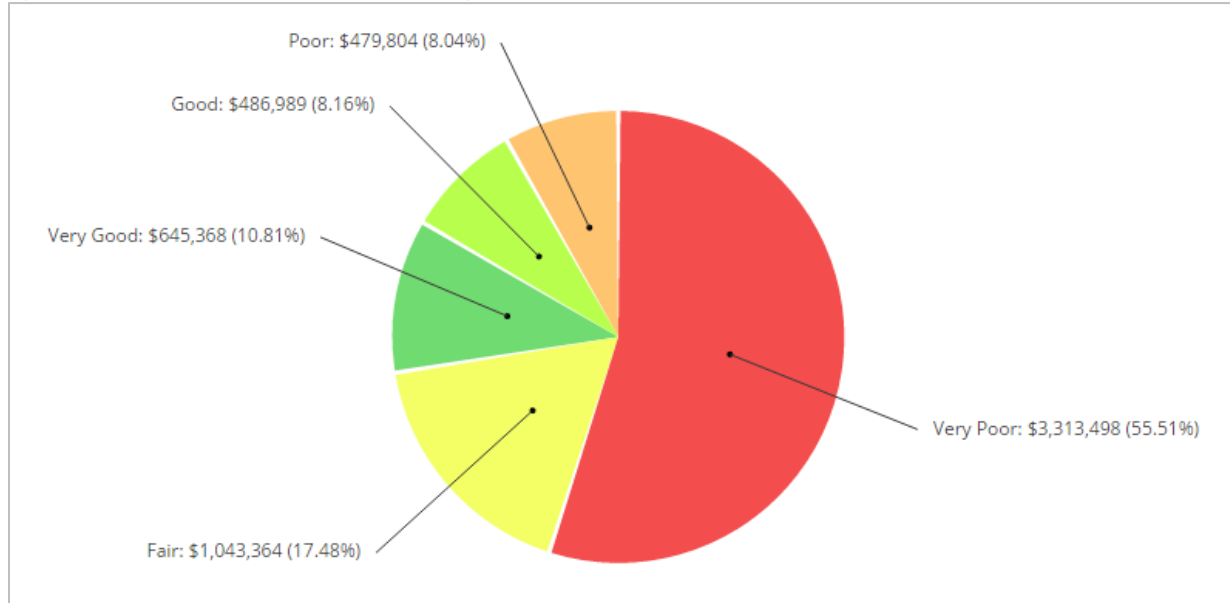


Less than 3% of assets have at least 10 years of useful life remaining; 42%, with a valuation of \$2.5 million, remain in operation beyond their useful life. An additional 22% will reach the end of their useful life in the next five years.

## 7.4 Current Asset Condition

Using replacement cost, in this section, we summarize the condition of the municipality's machinery & equipment assets as of 2015. By default, we rely on observed field data as provided by the municipality. In the absence of such information, age-based data is used as a proxy. The municipality has not provided condition data.

Figure 44 Asset Condition – Machinery & Equipment (Age-based)

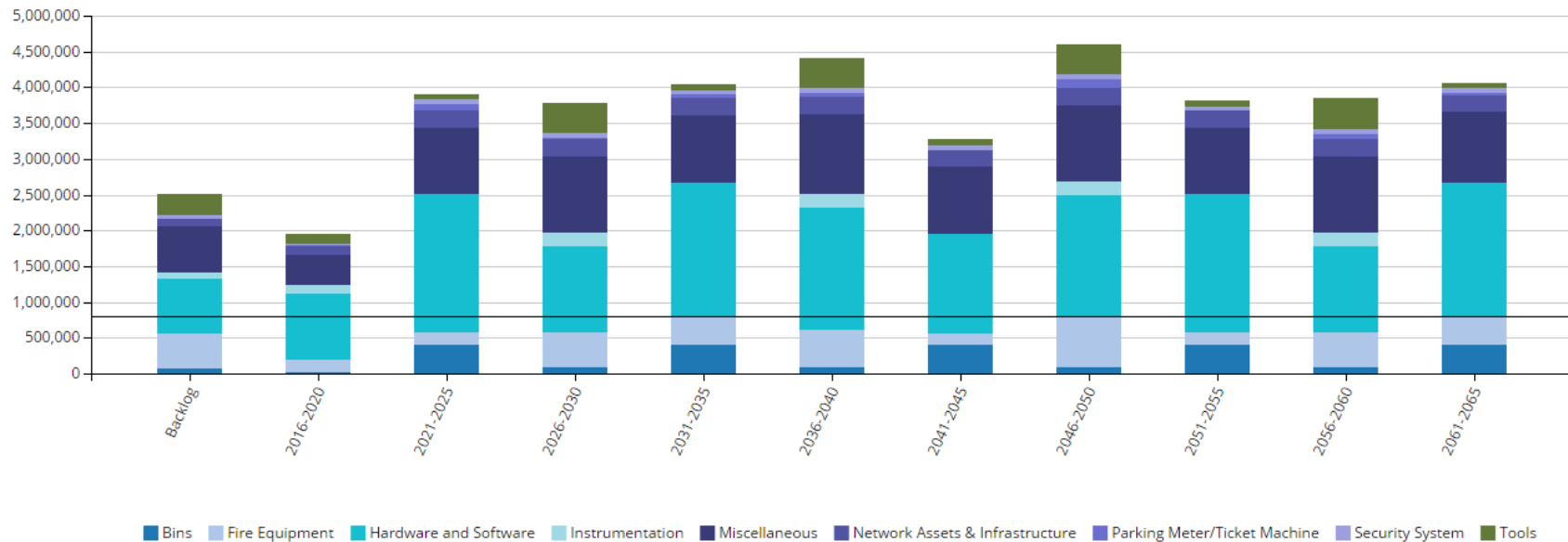


Based on age data, 64% of assets, with a valuation of \$3.8 million, are in poor to very poor condition; 19% are in good to very good condition.

## 7.5 Forecasting Replacement Needs

In this section, we illustrate the short-, medium- and long-term infrastructure spending requirements (replacement only) for the municipality's machinery & equipment assets. The backlog is the aggregate investment in infrastructure that was deferred over previous years or decades. In the absence of observed data, the backlog represents the value of assets that remain in operation beyond their useful life.

Figure 45 Forecasting Replacement Needs – Machinery & Equipment



In addition to an age-based backlog of \$2.5 million, the municipality's replacement needs total \$1.9 million in the next five years. An additional \$3.9 million will be required between 2021-2025. The municipality's annual requirements (indicated by the black line) for its machinery & equipment total \$800,000. At this funding level, the municipality is allocating sufficient funds on an annual basis to meet replacement needs as they arise without the need for deferring projects and accruing annual infrastructure deficits. However, the municipality is currently allocating \$600,000, leaving an annual deficit of \$200,000. See the 'Financial Strategy' section for maintaining a sustainable funding level. Further, while fulfilling the annual requirements will position the municipality to meet its future replacement needs, injection of additional revenues will be needed to mitigate existing infrastructure backlogs.

## 7.6 Recommendations – Machinery & Equipment

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- The municipality should implement a component based condition inspection program to better define financial requirements for its machinery and equipment. See Section 2, 'Condition Assessment Programs' in the 'Asset Management Strategies' chapter.
- Using the above information, the municipality should assess its short-, medium- and long-term capital, and operations and maintenance needs.
- An appropriate percentage of the replacement costs should then be allocated for the municipality's O&M requirements.
- The municipality is funding 73% of its long-term requirements on an annual basis. See the 'Financial Strategy' section on how to maintain sustainable and optimal funding levels.

## 8. Land Improvements

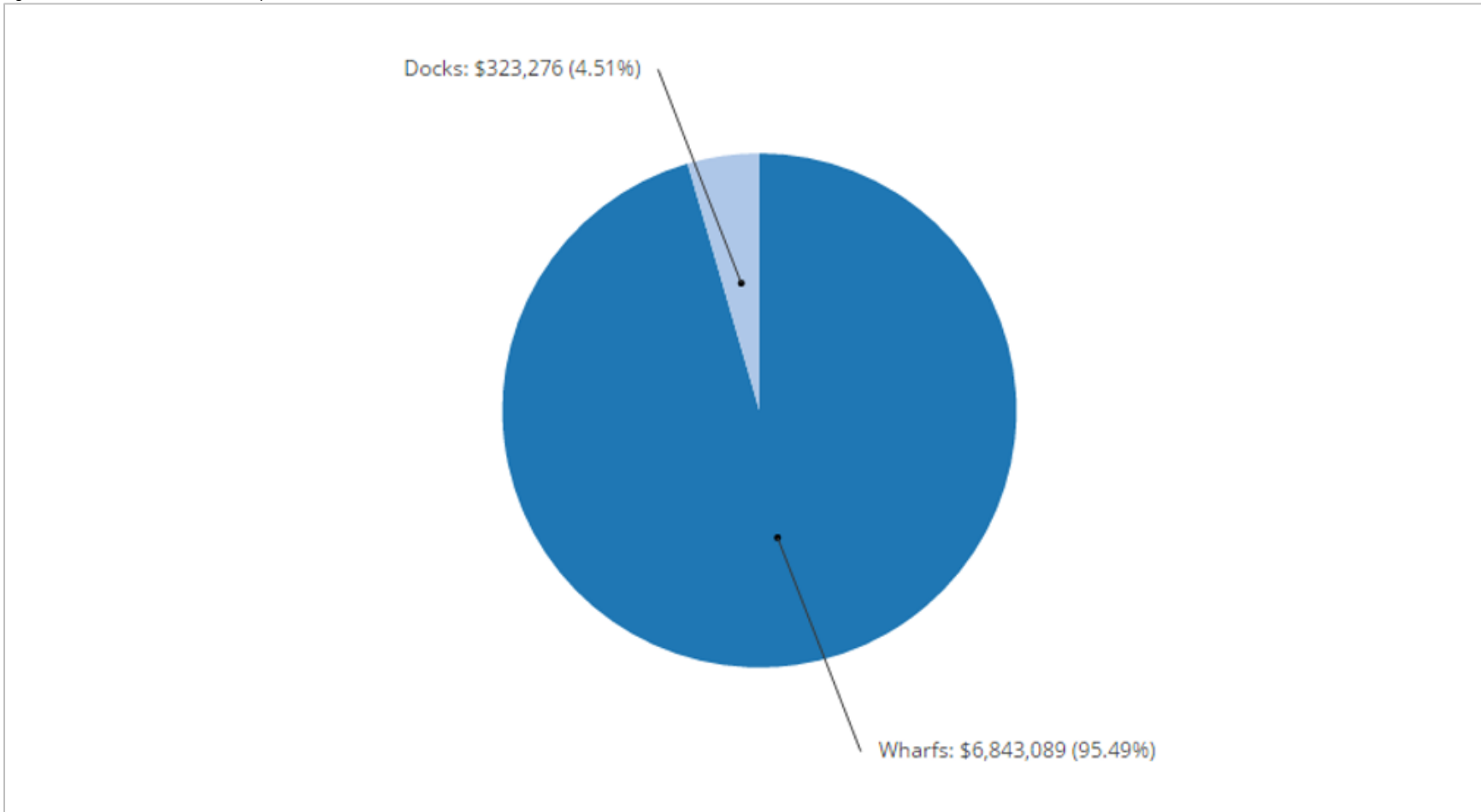
### 8.1 Asset Portfolio: Quantity, Useful Life and Replacement Cost

Table 13 illustrates key asset attributes for the municipality's land improvement assets, including quantities of various assets, their useful life, their replacement cost, and the valuation method by which the replacement costs were derived. In total, the municipality's land improvements assets are valued at \$7.2 million based on 2016 replacement costs. The useful life indicated for the asset types below was assigned by the municipality.

Table 13 Key Asset Attributes – Land Improvements

Asset Type	Components	Quantity	Useful Life in Years	Valuation Method	2016 Replacement Cost
Land Improvements	Docks	7	10	CPI Tables	\$344,792
	Wharfs	11	50 - 75	CPI Tables	\$6,821,573
Total					\$7,166,365

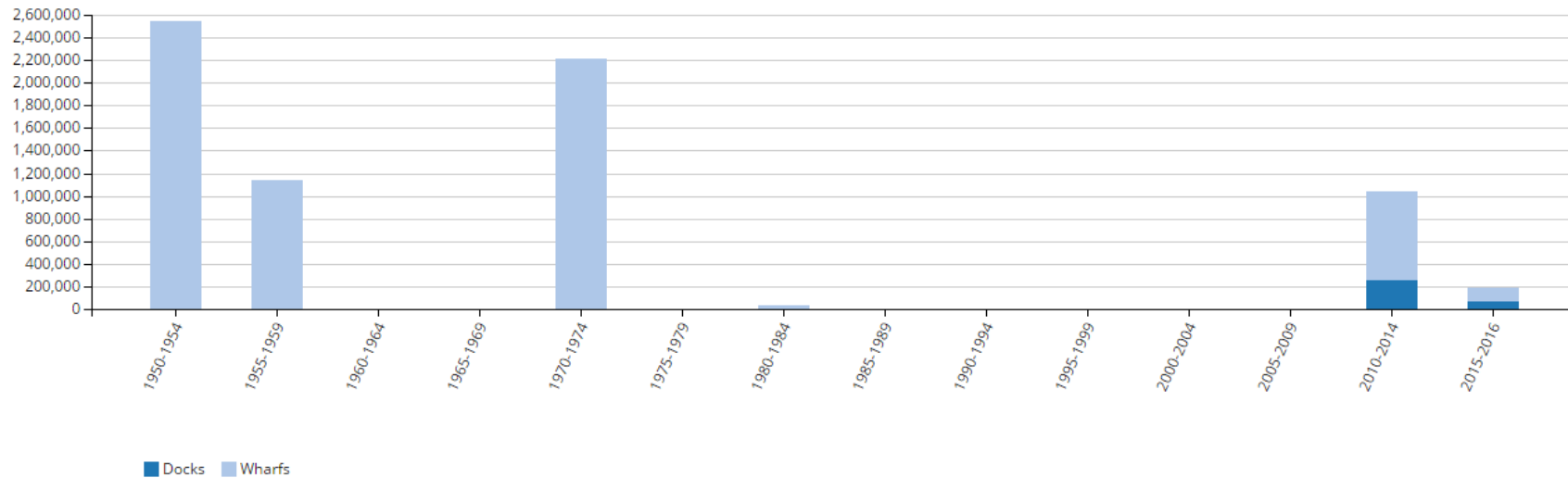
Figure 46 Asset Valuation – Land Improvements



## 8.2 Historical Investment in Infrastructure

Figure 47 shows the municipality's historical investments in its land improvements since 1950 based on 2016 replacement cost. While observed condition data will provide superior accuracy in estimating replacement needs and should be incorporated into strategic plans, in the absence of such information, understanding past expenditure patterns and current useful life consumption levels (Section 8.3) can inform the forecasting and planning of short-, medium- and long-term replacement needs.

Figure 47 Historical Investment – Land Improvements



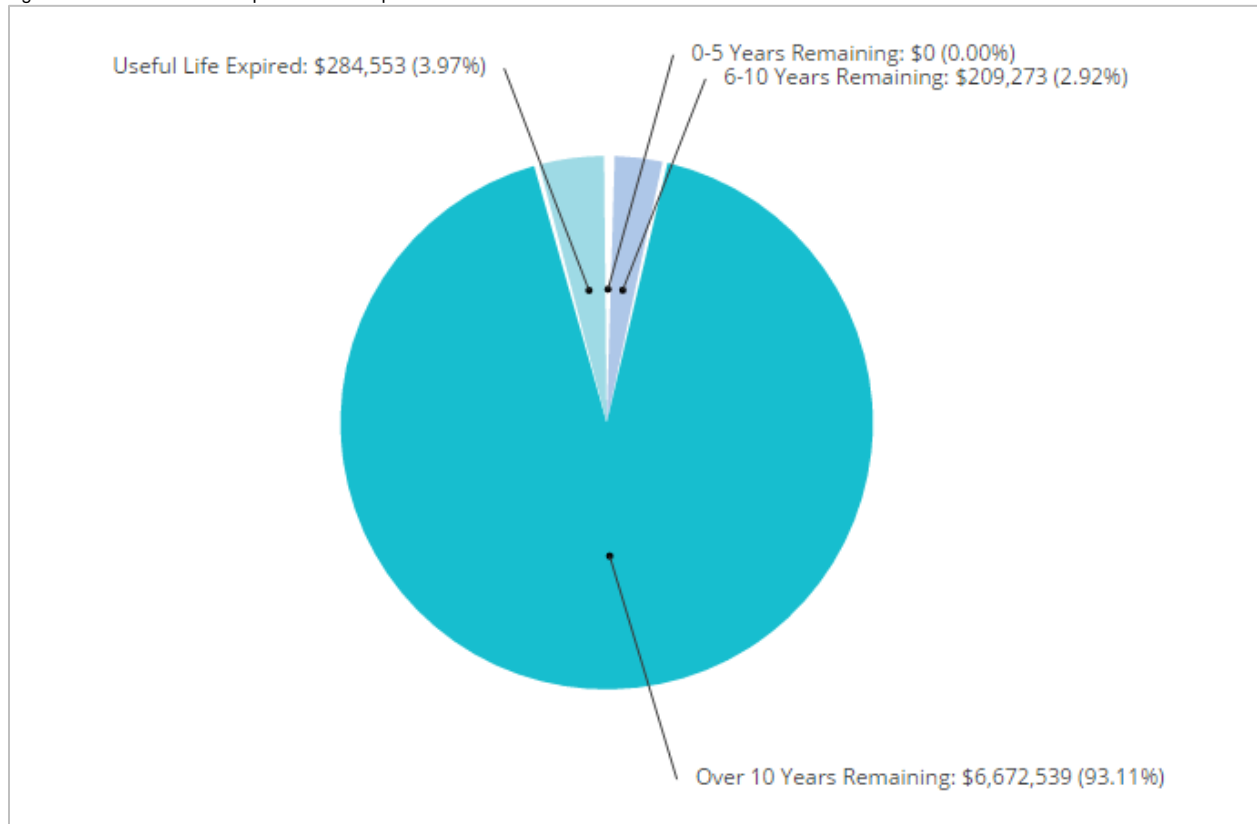
The largest investment in the land improvements class occurred between 1950-1954, totaling \$2.5 million, primarily in wharfs. Since 2010, expenditures have totaled \$1.2 million. Note that all wharfs have been transferred from the Federal Government and all spending on wharfs prior to amalgamation was done by the Federal Government.



### 8.3 Useful Life Consumption

In this section, we detail the extent to which assets have consumed their useful life based on the above, established useful life standards. In conjunction historical spending patterns, observed condition data, understanding the consumption rate of assets based on industry established useful life measures provides a more complete profile of the state of a community's infrastructure. Figure 48 illustrates the useful life consumption levels as of 2015 for the municipality's land improvement assets.

Figure 48 Useful Life Consumption – Land Improvements

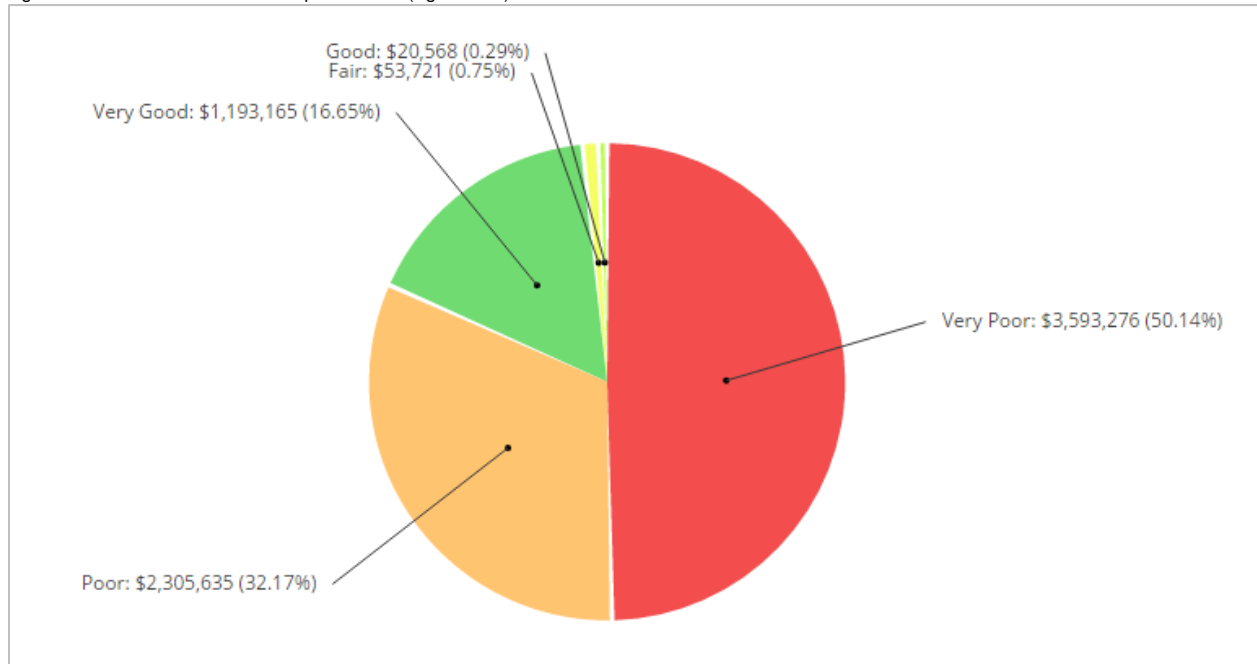


While 93% of the municipality's land improvement assets, with a valuation of \$6.7 million, have at least 10 years of useful life remaining, 4% remain in operation beyond their useful life.

## 8.4 Current Asset Condition

Using replacement cost, in this section, we summarize the condition of the municipality's land improvement assets. By default, we rely on observed field data as provided by the municipality. In the absence of such information, age-based data is used as a proxy. The municipality has not provided condition data.

Figure 49 Asset Condition - Land Improvements (Age-based)

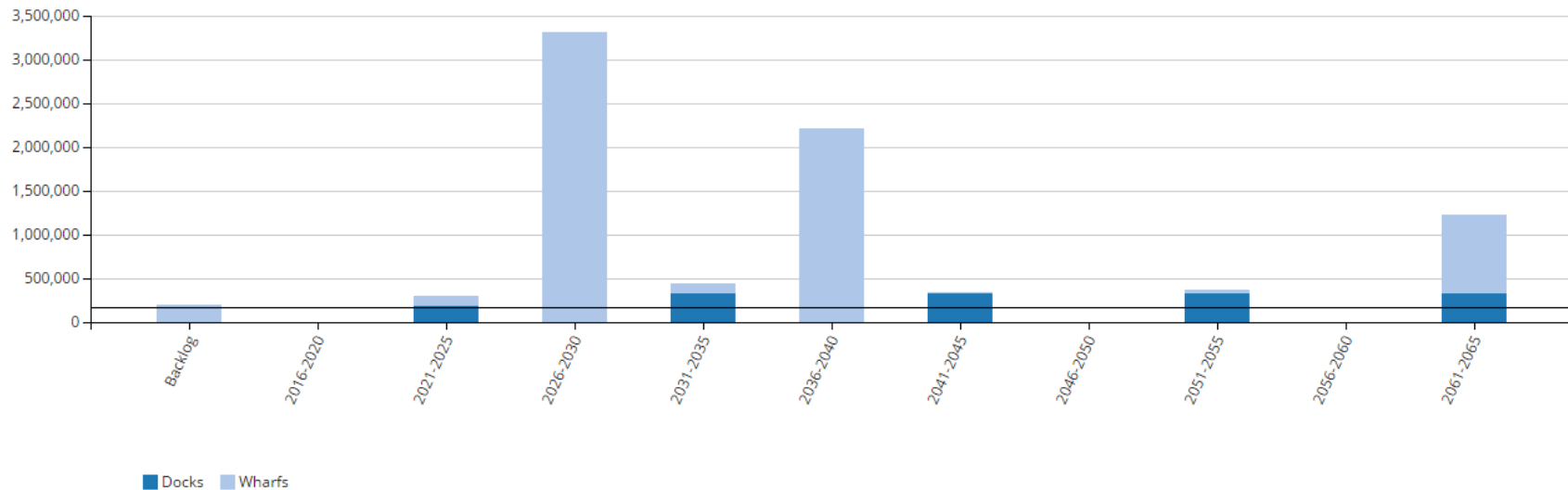


Based on age data, 82% of the municipality's land improvement assets, with a valuation of \$5.9 million, are in poor to very poor condition.

## 8.5 Forecasting Replacement Needs

In this section, we illustrate the short-, medium- and long-term infrastructure spending requirements (replacement only) for the municipality's land improvements assets. The backlog is the aggregate investment in infrastructure that was deferred over previous years or decades. In the absence of observed data, the backlog represents the value of assets that remain in operation beyond their useful life.

Figure 50 Forecasting Replacement Needs – Land Improvements



Age-based data shows a backlog of \$200,000. In addition, the municipality's replacement needs will total \$264,000 over the next 10 years. The municipality's annual requirements (indicated by the black line) for its land improvements total \$170,000. At this funding level, the municipality is allocating sufficient funds on an annual basis to meet replacement needs as they arise without the need for deferring projects and accruing annual infrastructure deficits. However, the municipality is currently allocating \$35,000, leaving an annual deficit of \$135,000. See the 'Financial Strategy' section for achieving a more optimal and sustainable funding level. Further, while fulfilling the annual requirements will position the municipality to meet its future replacement needs, injection of additional revenues will be needed to mitigate existing infrastructure backlogs.

## 8.6 Recommendations – Land Improvements

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- The municipality should implement a condition assessment program for its land improvement assets to better estimate actual condition levels. See Section 2, 'Condition Assessment Programs' in the 'Asset Management Strategies' chapter.
- Using the above information the municipality should assess its short-, medium- and long-term capital and operations and maintenance needs.
- An appropriate percentage of the replacement costs should then be allocated for the municipality's O&M requirements.
- The municipality is funding 21% of its long-term replacement needs on an annual basis. See the 'Financial Strategy' section on how to achieve more sustainable and optimal funding levels

## 9. Fleet

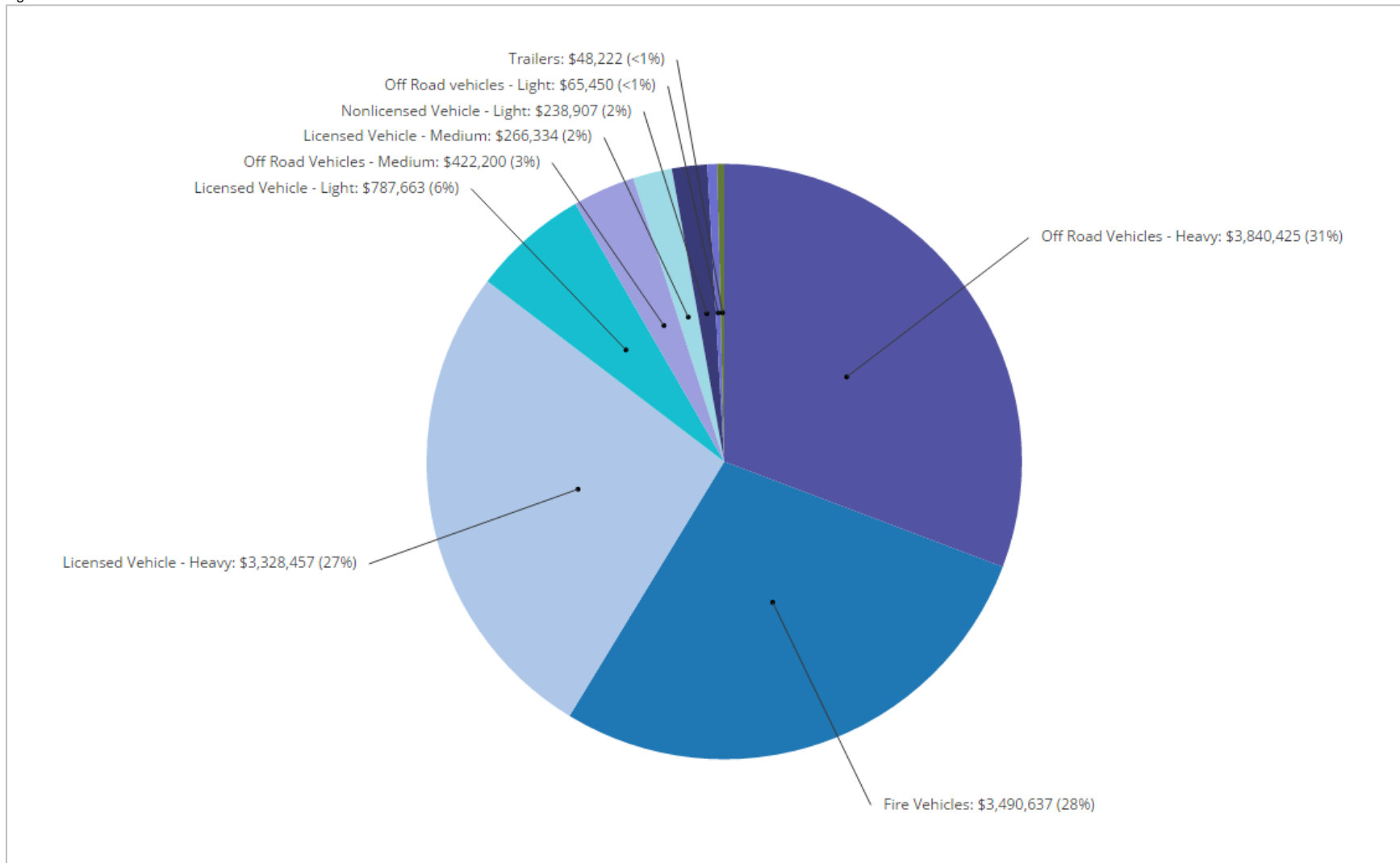
### 9.1 Asset Portfolio: Quantity, Useful Life and Replacement Cost

Table 14 illustrates key asset attributes for the municipality's fleet assets, including quantities of various assets, their useful life, their replacement cost, and the valuation method by which the replacement costs were derived. In total, the municipality's fleet assets are valued at \$12.5 million based on 2016 replacement costs. The useful life indicated for the asset types below was assigned by the municipality.

Table 14 Key Asset Attributes – Fleet

Asset Type	Components	Quantity	Useful Life in Years	Valuation Method	2016 Replacement Cost
Fleet	Fire Vehicle	12	7 - 25	CPI Tables	\$3,490,637
	Licensed Vehicle - Heavy	18	15	CPI Tables	\$3,328,457
	Licensed Vehicle - Light	26	12	CPI Tables	\$787,663
	Licensed Vehicle - Medium	4	5	CPI Tables	\$266,334
	Nonlicensed Vehicle - Light	7	2 - 10	CPI Tables	\$238,907
	Off Road Vehicles - Heavy	23	8 - 15	CPI Tables	\$3,840,425
	Off Road vehicles - Light	5	7	CPI Tables	\$65,450
	Off Road Vehicles - Medium	9	15	CPI Tables	\$422,200
	Trailers	5	20	CPI Tables	\$48,222
Total					\$12,488,295

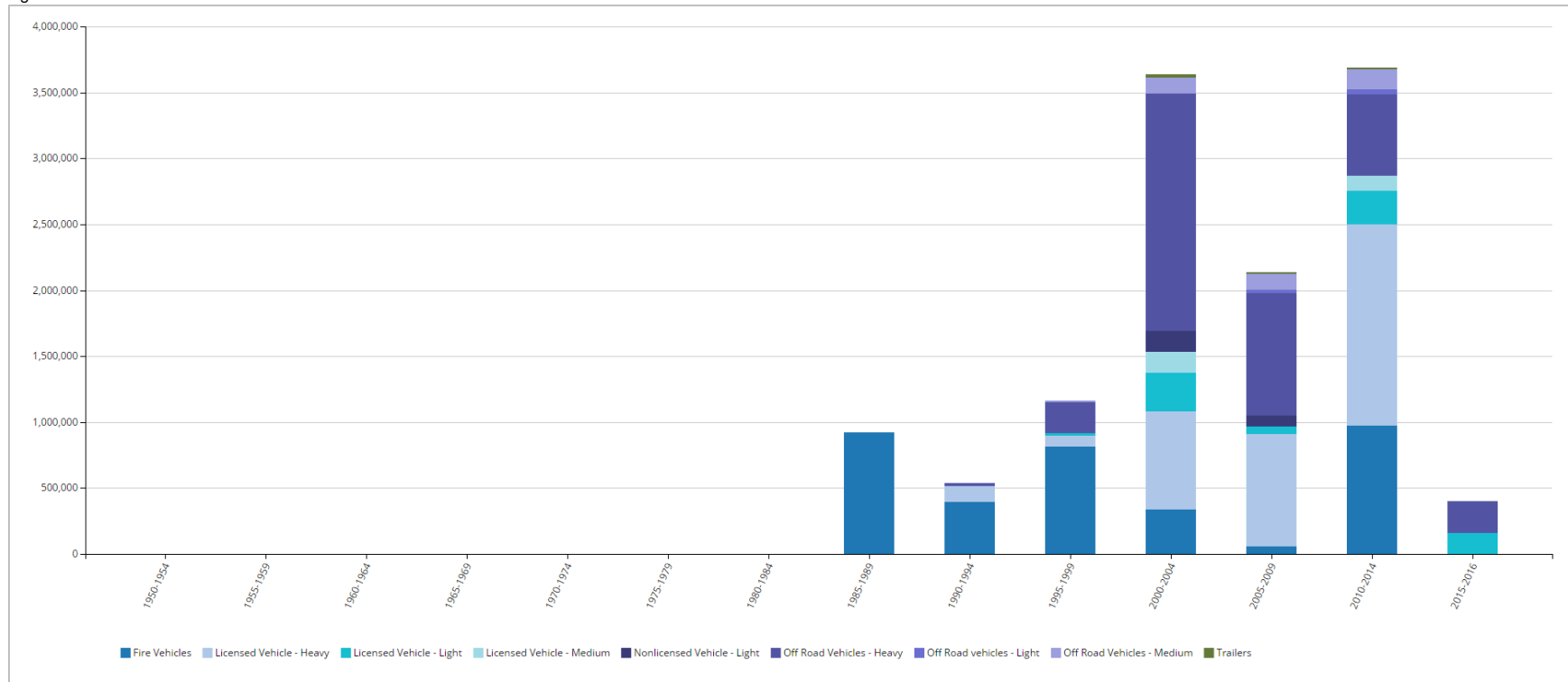
Figure 51 Asset Valuation – Fleet



## 9.2 Historical Investment in Infrastructure

Figure 52 shows the municipality’s historical investments in its fleet since 1950 based on 2016 replacement cost. While observed condition data will provide superior accuracy in estimating replacement needs and should be incorporated into strategic plans, in the absence of such information, understanding past expenditure patterns and current useful life consumption levels (Section 9.3) can inform the forecasting and planning of short-, medium- and long-term replacement needs.

Figure 52 Historical Investment – Fleet

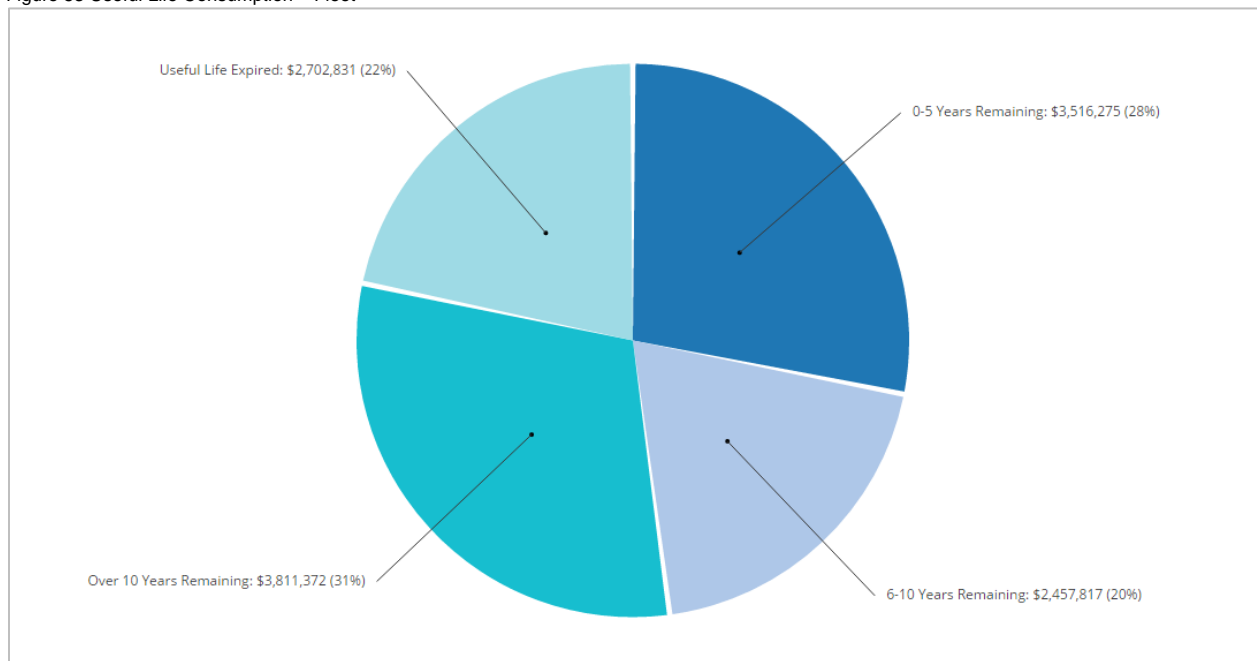


Investments in fleet increased rapidly in the 2000s, with expenditures totaling \$3.6 million. This is likely due to obsolete and replacement of existing assets. Between 2010-2014, investments peaked at \$3.7 million. Since 2015, the municipality has invested \$400,000.

### 9.3 Useful Life Consumption

In this section, we detail the extent to which assets have consumed their useful life based on the above, established useful life standards. In conjunction historical spending patterns, observed condition data, understanding the consumption rate of assets based on industry established useful life measures provides a more complete profile of the state of a community's infrastructure. Figure 53 illustrates the useful life consumption levels as of 2015 for the municipality's fleet.

Figure 53 Useful Life Consumption – Fleet



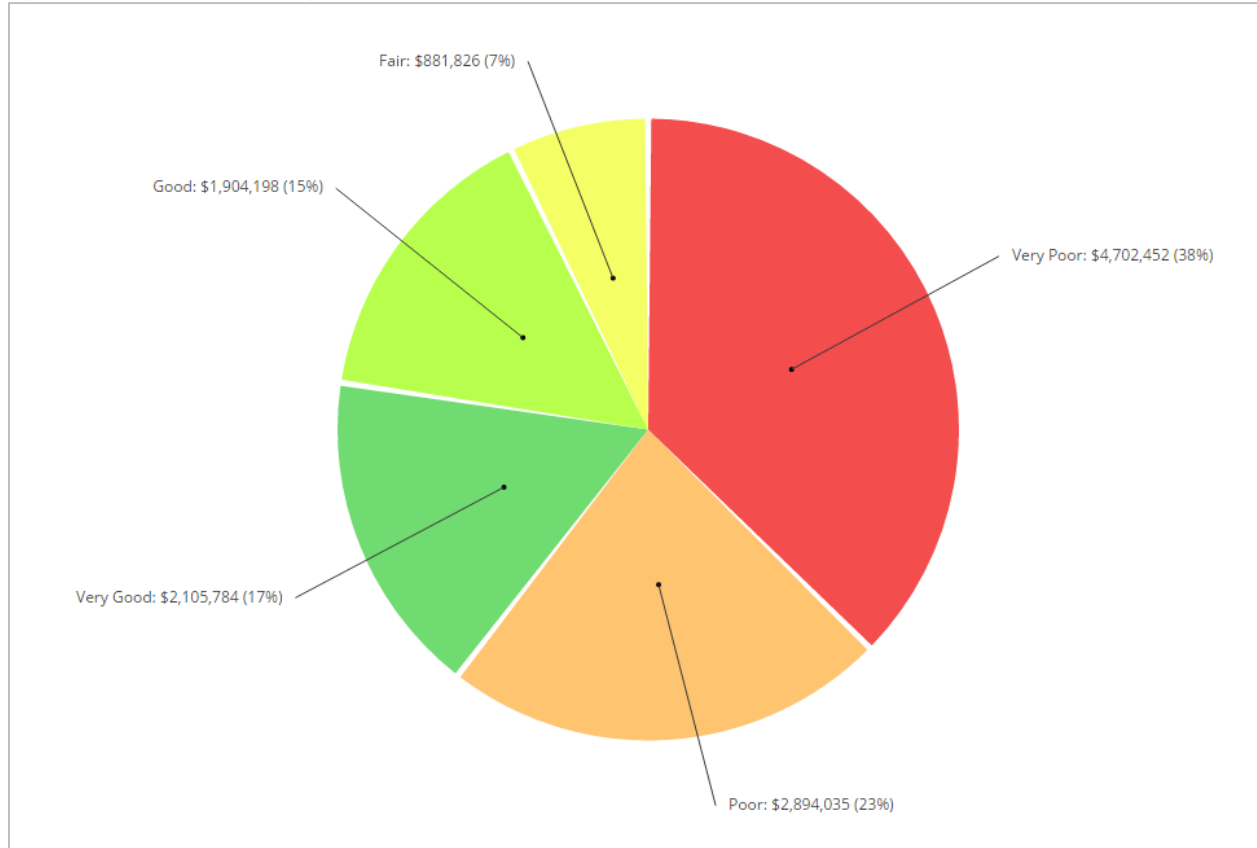
Over 30% of assets have at least 10 years of useful life remaining; 22%, with a valuation of \$2.7 million remain in operation beyond their useful life. An additional 28% will reach the end of their useful life in the next five years.



## 9.4 Current Asset Condition

Using replacement cost, in this section, we summarize the condition of the municipality's fleet assets as of 2015. By default, we rely on observed field data as provided by the municipality. In the absence of such information, age-based data is used as a proxy. The municipality has not provided condition data.

Figure 54 Asset Condition – Fleet (Age-based)

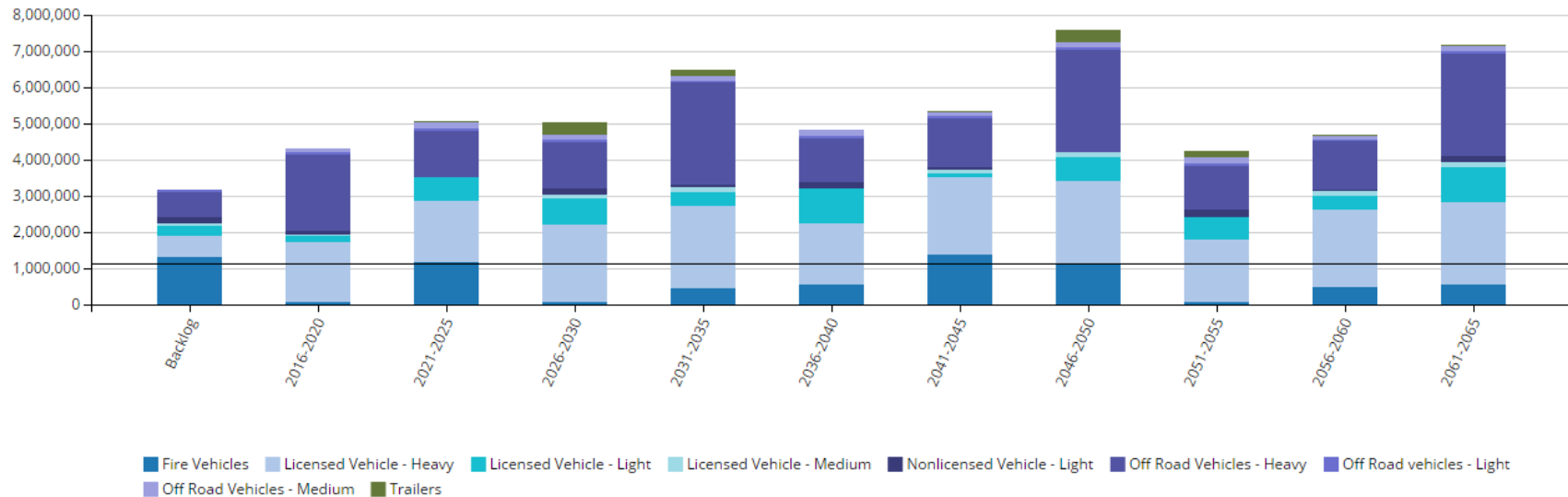


Age-based data shows that over 60% of the municipality's fleet assets are in poor to very poor condition; 32%, with a valuation of \$4 million are in good to very good condition.

## 9.5 Forecasting Replacement Needs

In this section, we illustrate the short-, medium- and long-term infrastructure spending requirements (replacement only) for the municipality’s fleet assets. The backlog is the aggregate investment in infrastructure that was deferred over previous years or decades. In the absence of observed data, the backlog represents the value of assets that remain in operation beyond their useful life.

Figure 55 Forecasting Replacement Needs – Fleet



In addition an age-based backlog of \$2.7 million, replacement needs will total \$3.5 million over the next five years; an additional \$2.5 million will be required between 2021-2025. The municipality’s annual requirements (indicated by the black line) for its fleet total \$766,000. At this funding level, the municipality is allocating sufficient funds on an annual basis to meet replacement needs as they arise without the need for deferring projects and accruing annual infrastructure deficits. However, the municipality is currently allocating \$250,000, leaving an annual deficit of \$516,000. See the ‘Financial Strategy’ section for achieving a more optimal and sustainable funding level. Further, while fulfilling the annual requirements will position the municipality to meet its future replacement needs, injection of additional revenues will be needed to mitigate existing infrastructure backlogs.

## 9.6 Recommendations – Fleet

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- A preventative maintenance and life cycle assessment program should be established for the fleet class to gain a better understanding of current condition and performance as well as the short- and medium-term replacement needs. See Section 2, ‘Condition Assessment Programs’ in the ‘Asset Management Strategies’ chapter.
- Using the above information the municipality should assess its short-, medium- and long-term capital and operations and maintenance needs.
- An appropriate percentage of the replacement costs should then be allocated for the municipality’s O&M requirements.
- The municipality is funding 33% of its long-term replacement needs on an annual basis. See the ‘Financial Strategy’ section on how to achieve more sustainable and optimal funding levels.

## 10. Solid Waste

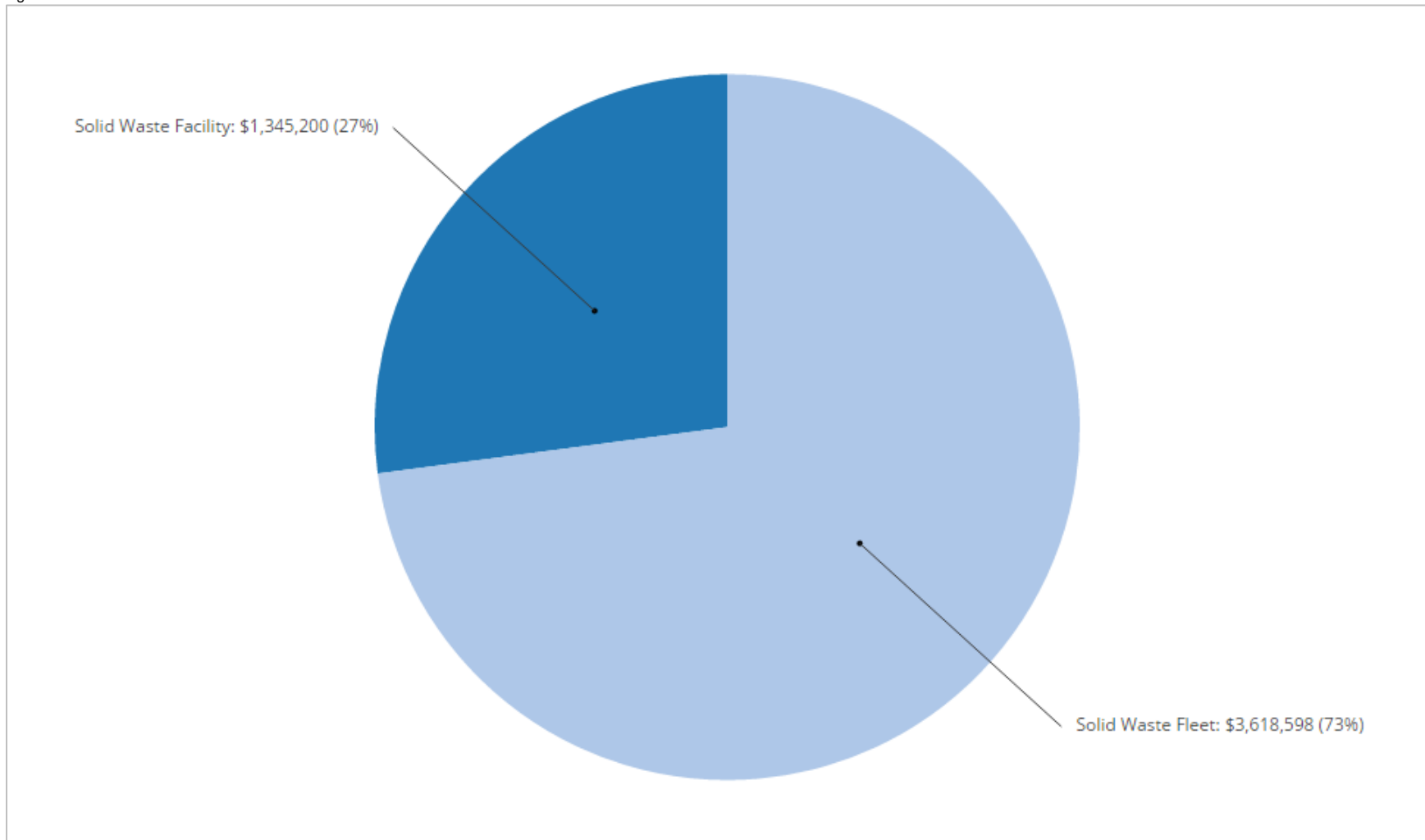
### 10.1 Asset Portfolio: Quantity, Useful Life and Replacement Cost

Table 15 illustrates key asset attributes for the municipality's solid waste assets, including quantities of various assets, their useful life, their replacement cost, and the valuation method by which the replacement costs were derived. In total, the municipality's solid waste assets are valued at \$5 million based on 2016 replacement costs. The useful life indicated for the asset types below was assigned by the municipality. Note that the municipality does own a landfill that is not reflected within this AMP.

Table 15 Key Asset Attributes – Solid Waste

Asset Type	Components	Quantity	Useful Life in Years	Valuation Method	2016 Replacement Cost
Solid Waste	Solid Waste Facility	12	10 – 75	CPI Tables	\$1,345,200
	Solid Waste Vehicles	22	8 - 15	CPI Tables	\$3,618,598
Total					\$4,963,798

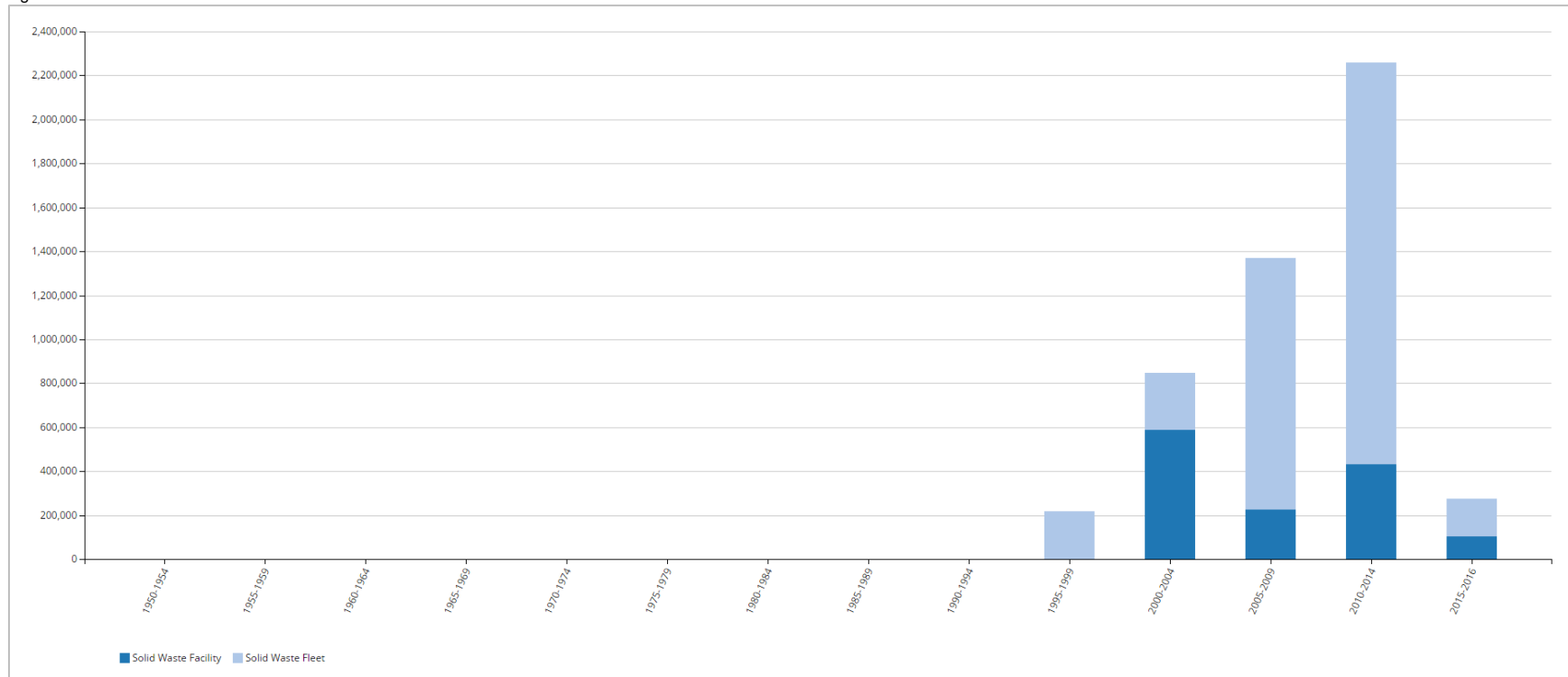
Figure 56 Asset Valuation – Solid Waste



## 10.2 Historical Investment in Infrastructure

Figure 62Figure 52 shows the municipality’s historical investments in its solid waste assets since 1950 based on 2016 replacement cost. While observed condition data will provide superior accuracy in estimating replacement needs and should be incorporated into strategic plans, in the absence of such information, understanding past expenditure patterns and current useful life consumption levels (Section 10.3) can inform the forecasting and planning of short-, medium- and long-term replacement needs.

Figure 57 Historical Investment – Solid Waste

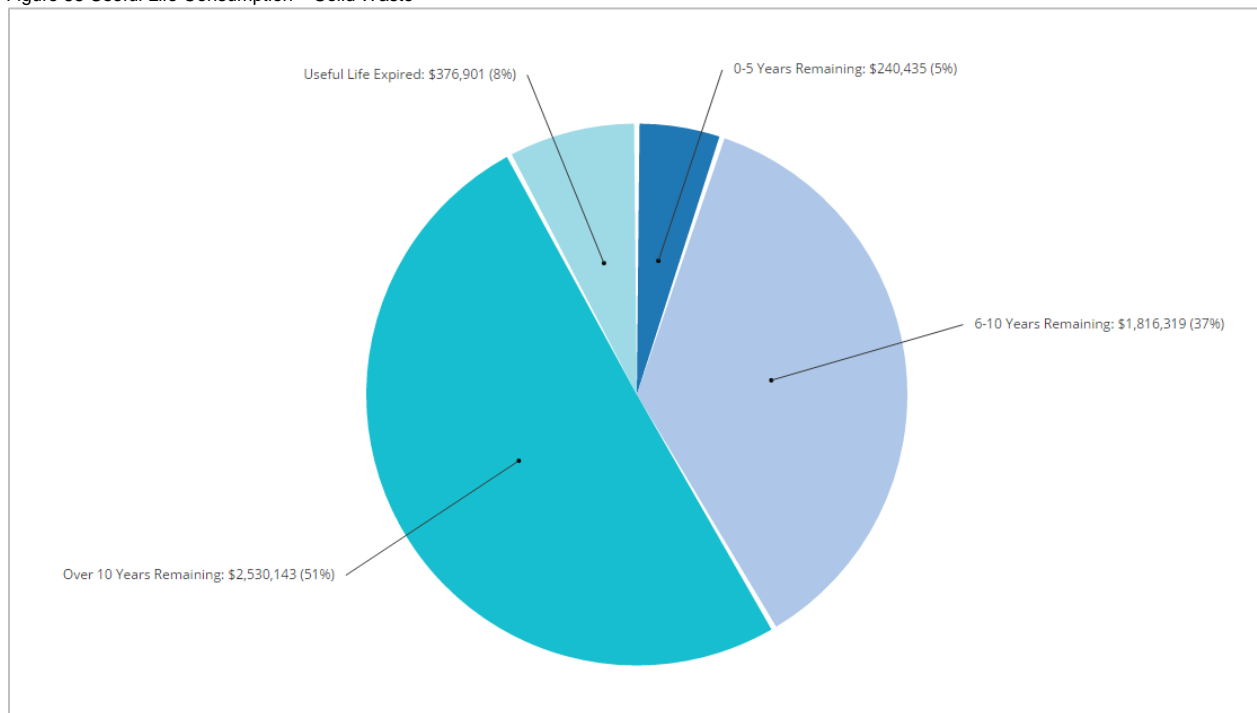


Investments in solid waste assets increased rapidly in the 2000s, with expenditures peaking at \$2.3 million between 2010-2014. Since 2015, the municipality has invested nearly \$300,000.

### 10.3 Useful Life Consumption

In this section, we detail the extent to which assets have consumed their useful life based on the above, established useful life standards. In conjunction historical spending patterns, observed condition data, understanding the consumption rate of assets based on industry established useful life measures provides a more complete profile of the state of a community's infrastructure. Figure 58 illustrates the useful life consumption levels as of 2015 for the municipality's solid waste assets.

Figure 58 Useful Life Consumption – Solid Waste

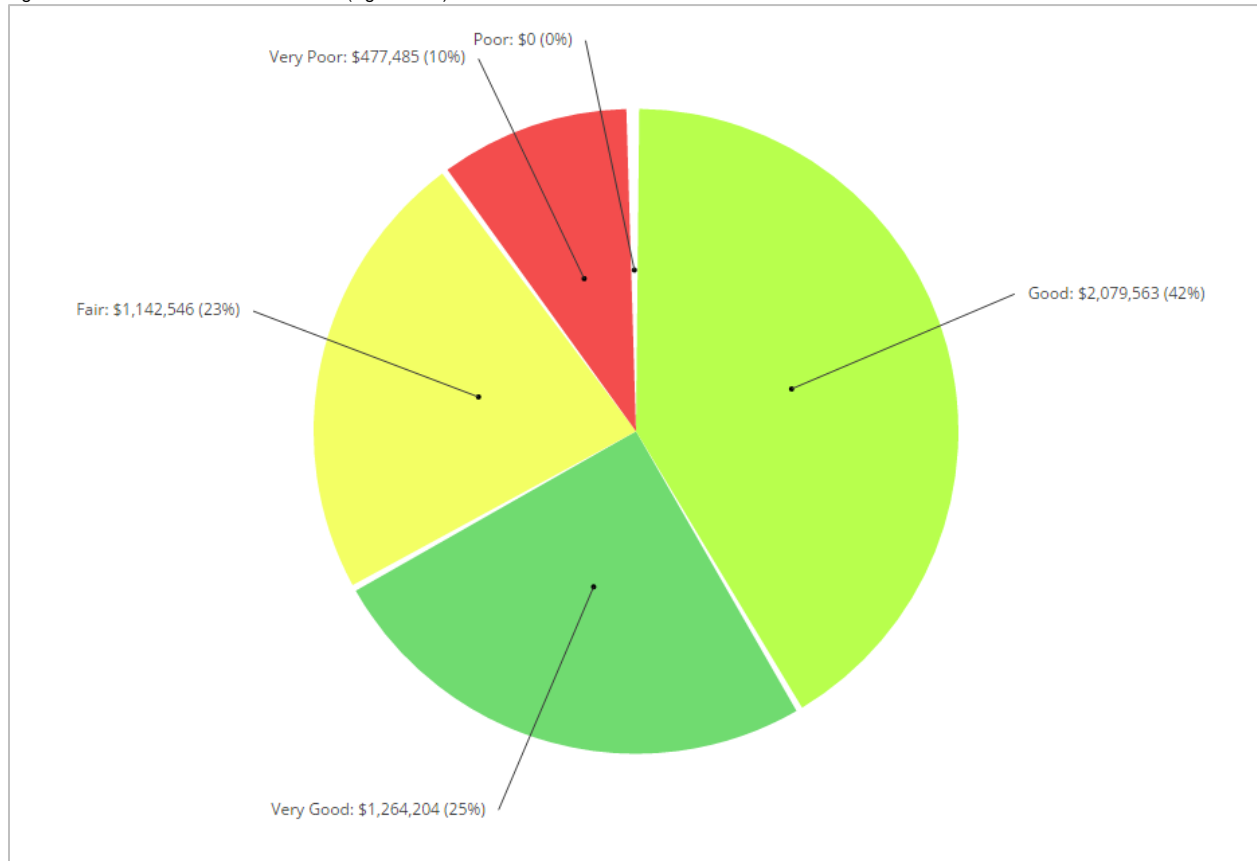


Over 50% of assets have at least 10 years of useful life remaining; 8%, with a valuation of nearly \$380,000 remain in operation beyond their useful life. An additional 5% will reach the end of their useful life in the next five years.

## 10.4 Current Asset Condition

Using replacement cost, in this section, we summarize the condition of the municipality's solid waste assets as of 2015. By default, we rely on observed field data as provided by the municipality. In the absence of such information, age-based data is used as a proxy. The municipality has not provided condition data.

Figure 59 Asset Condition – Solid Waste (Age-based)



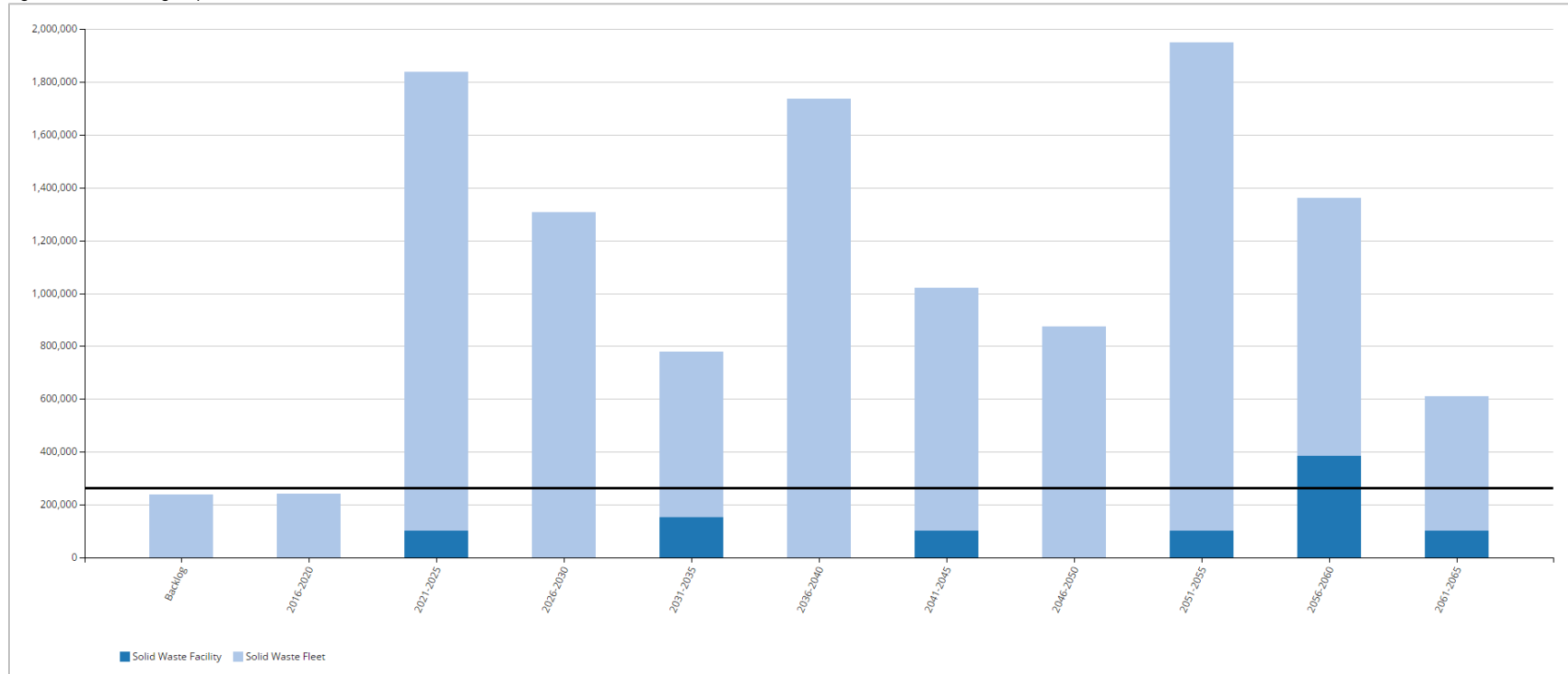
Age-based data shows that 10% of the municipality's solid waste assets are in very poor condition; 67%, with a valuation of \$3.3 million are in good to very good condition.



## 10.5 Forecasting Replacement Needs

In this section, we illustrate the short-, medium- and long-term infrastructure spending requirements (replacement only) for the municipality's solid waste assets. The backlog is the aggregate investment in infrastructure that was deferred over previous years or decades. In the absence of observed data, the backlog represents the value of assets that remain in operation beyond their useful life.

Figure 60 Forecasting Replacement Needs – Solid Waste



In addition to an age-based backlog of \$237,000, replacement needs will total over \$240,000 over the next five years; an additional \$1.8 million will be required between 2021-2025. The municipality's annual requirements (indicated by the black line) for its solid waste assets total \$266,000. At this funding level, the municipality is allocating sufficient funds on an annual basis to meet replacement needs as they arise without the need for deferring projects and accruing annual infrastructure deficits. The municipality is currently allocating \$460,000, leaving an annual surplus of \$194,000. See the 'Financial Strategy' section for achieving a more optimal and sustainable funding level. Further, while fulfilling the annual requirements will position the municipality to meet its future replacement needs, injection of additional revenues will be needed to mitigate existing infrastructure backlogs.

## 10.6 Recommendations – Solid Waste

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- The municipality should implement a condition assessment program for its solid waste assets to better estimate actual condition levels. See Section 2, ‘Condition Assessment Programs’ in the ‘Asset Management Strategies’ chapter.
- Using the above information, the municipality should assess its short-, medium- and long-term capital and operations and maintenance needs.
- An appropriate percentage of the replacement costs should then be allocated for the municipality’s O&M requirements.
- The municipality is over funding (173%) its long-term replacement needs on an annual basis. Note that this does not factor in future landfill replacement costs. See the ‘Financial Strategy’ section on how to achieve more sustainable and optimal funding levels.

## VII. Levels of Service

The two primary risks to a municipality's financial sustainability are the total lifecycle costs of infrastructure, and establishing levels of service (LOS) that exceed its financial capacity. In this regard, municipalities face a choice: overpromise and underdeliver; underpromise and overdeliver; or promise only that which can be delivered efficiently without placing inequitable burden on taxpayers. In general, there is often a trade-off between political expedience and judicious, long-term fiscal stewardship.

Developing realistic LOS using meaningful key performance indicators (KPIs) can be instrumental in managing citizen expectations, identifying areas requiring higher investments, driving organizational performance and securing the highest value for money from public assets. However, municipalities face diminishing returns with greater granularity in their LOS and KPI framework. That is, the objective should be to track only those KPIs that are relevant and insightful and reflect the priorities of the municipality.

### 1. Guiding Principles for Developing LOS

Beyond meeting regulatory requirements, levels of service established should support the intended purpose of the asset and its anticipated impact on the community and the municipality. LOS generally have an overarching corporate description, a customer oriented description, and a technical measurement. Many types of LOS, e.g., availability, reliability, safety, responsiveness and cost effectiveness, are applicable across all service areas in a municipality. The following LOS categories are established as guiding principles for the LOS that each service area in the municipality should strive to provide internally to the municipality and to residents/customers. These are derived from the City of Whitby's *Guide to Developing Service Area Asset Management Plans*.

Table 16 LOS Categories

LOS Category	Description
Reliable	Services are predictable and continuous; services of sufficient capacity are convenient and accessible to the entire community
Cost Effective	Services are provided at the lowest possible cost for both current and future customers, for a required level of service, and are affordable
Responsive	Opportunities for community involvement in decision making are provided; and customers are treated fairly and consistently, within acceptable timeframes, demonstrating respect, empathy and integrity
Safe	Services are delivered such that they minimize health, safety and security risks
Suitable	Services are suitable for the intended function (fit for purpose)
Sustainable	Services preserve and protect the natural and heritage environment.

While the above categories provide broad strategic direction to council and staff, specific and measurable KPIs related to each LOS category are needed to ensure the municipality remains steadfast in its pursuit of delivering the highest value for money to various internal and external stakeholders.

## 2. Key Performance Indicators and Targets

In this section, we identify industry standard KPIs for major infrastructure classes that the municipality can incorporate into its performance measurement and for tracking its progress over future iterations of its AMPs. The municipality should develop appropriate and achievable targets that reflect evolving demand on infrastructure, its fiscal capacity and the overall corporate objectives.

Table 17 Key Performance Indicators – Road Network and Bridges & Culverts

Level	KPI (Reported Annually)
Strategic	<ul style="list-style-type: none"> <li>– Percentage of total reinvestment compared to asset replacement value</li> <li>– Completion of strategic plan objectives (related to right-of-way)</li> </ul>
Financial Indicators	<ul style="list-style-type: none"> <li>– Annual revenues compared to annual expenditures</li> <li>– Annual replacement value depreciation compared to annual expenditures</li> <li>– Cost per capita for roads, and bridges &amp; culverts</li> <li>– Maintenance cost per square metre</li> <li>– Revenue required to maintain annual network growth</li> <li>– Total cost of borrowing vs. total cost of service</li> </ul>
Tactical	<ul style="list-style-type: none"> <li>– Overall Bridge Condition Index (BCI) as a percentage of desired BCI</li> <li>– Percentage of road network rehabilitated/reconstructed</li> <li>– Percentage of paved road lane km rated as poor to very poor</li> <li>– Percentage of bridges and large culverts rated as poor to very poor</li> <li>– Percentage of asset class value spent on O&amp;M</li> <li>– Percentage of signage that pass reflectivity test. The remaining should be replaced</li> </ul>
Operational Indicators	<ul style="list-style-type: none"> <li>– Percentage of roads inspected within the last five years</li> <li>– Percentage of bridges and large culverts inspected within the last two years</li> <li>– Operating costs for paved lane per km</li> <li>– Operating costs for bridge and large culverts per square metre</li> <li>– Percentage of customer requests with a 24-hour response rate</li> </ul>

Table 18 Key Performance Indicators – Buildings &amp; Facilities

Level	KPI (Reported Annually)
Strategic	<ul style="list-style-type: none"> <li>– Percentage of total reinvestment compared to asset replacement value</li> <li>– Completion of strategic plan objectives (related buildings and facilities)</li> </ul>
Financial Indicators	<ul style="list-style-type: none"> <li>– Annual revenues compared to annual expenditures</li> <li>– Annual replacement value depreciation compared to annual expenditures</li> <li>– Revenue required to meet growth related demand</li> <li>– Repair and maintenance costs per square metre</li> <li>– Energy, utility and water cost per square metre</li> </ul>
Tactical	<ul style="list-style-type: none"> <li>– Percentage of component value replaced</li> <li>– Overall facility condition index as a percentage of desired condition index</li> <li>– Annual adjustment in condition indexes</li> <li>– Annual percentage of new facilities (square metre)</li> <li>– Percent of facilities rated poor or critical</li> <li>– Percentage of facilities replacement value spent on operations and maintenance Increase facility utilization rate by [x] percent by 2020.</li> <li>– <math>Utilization Rate = \frac{Occupied Space}{Facility Usable Area}</math></li> </ul>
Operational Indicators	<ul style="list-style-type: none"> <li>– [x] sq.ft. of facilities per full-time employee (or equivalent), i.e., maintenance staff</li> <li>– Percentage of facilities inspected within the last five years</li> <li>– Number/type of service requests</li> <li>– Percentage of customer requests responded to within 24 hours</li> </ul>

Table 19 Key Performance Indicators – Fleet

Level	KPI (Reported Annually)
Strategic	<ul style="list-style-type: none"> <li>– Percentage of total reinvestment compared to asset replacement value</li> <li>– Completion of strategic plan objectives</li> </ul>
Financial Indicators	<ul style="list-style-type: none"> <li>– Annual revenues compared to annual expenditures</li> <li>– Annual replacement value depreciation compared to annual expenditures</li> <li>– Cost per capita for roads, and bridges &amp; culverts</li> <li>– Maintenance cost per square metre</li> <li>– Revenue required to maintain annual network growth</li> <li>– Total cost of borrowing vs. total cost of service</li> </ul>
Tactical	<ul style="list-style-type: none"> <li>– Percentage of all fleet replaced</li> <li>– Average age of fleet</li> <li>– Percent of fleet rated poor or critical</li> <li>– Percentage of fleet replacement value spent on operations and maintenance</li> </ul>
Operational Indicators	<ul style="list-style-type: none"> <li>– Average downtime per fleet category</li> <li>– Average utilization per fleet category and/or each vehicle</li> <li>– Ratio of preventative maintenance repairs vs. reactive repairs</li> <li>– Percent of fleet that received preventative maintenance</li> <li>– Number/type of service requests</li> <li>– Percentage of customer requests responded to within 24 hours</li> </ul>

Table 20 Key Performance Indicators – Water, Waste water and Storm Networks

Level	KPI (Reported Annually)
Strategic	<ul style="list-style-type: none"> <li>–</li> <li>– Percentage of total reinvestment compared to asset replacement value</li> <li>– Completion of strategic plan objectives (related water/waste water/storm)</li> </ul>
Financial Indicators	<ul style="list-style-type: none"> <li>– Annual revenues compared to annual expenditures</li> <li>– Annual replacement value depreciation compared to annual expenditures</li> <li>– Total cost of borrowing compared to total cost of service</li> <li>– Revenue required to maintain annual network growth</li> <li>– Lost revenue from system outages</li> </ul>
Tactical	<ul style="list-style-type: none"> <li>– Percentage of water/waste water/storm network rehabilitated/reconstructed</li> <li>– Overall water/waste water/storm network condition index as a percentage of desired condition index</li> <li>– Annual adjustment in condition indexes</li> <li>– Annual percentage of growth in water/waste water/storm network</li> <li>– Percentage of mains where the condition is rated poor or critical for each network</li> <li>– Percentage of water/waste water/storm network replacement value spent on operations and maintenance</li> </ul>
Operational Indicators	<ul style="list-style-type: none"> <li>–</li> <li>– Percentage of water/waste water/storm network inspected</li> <li>– Operating costs for the collection of wastewater per kilometre of main.</li> <li>– Number of wastewater main backups per 100 kilometres of main</li> <li>– Operating costs for storm water management (collection, treatment, and disposal) per kilometre of drainage system.</li> <li>– Operating costs for the distribution/ transmission of drinking water per kilometre of water distribution pipe.</li> <li>– Number of days when a boil water advisory issued by the medical officer of health, applicable to a municipal water supply, was in effect.</li> <li>– Number of water main breaks per 100 kilometres of water distribution pipe in a year.</li> <li>– Number of customer requests received annually per water/waste water/storm networks</li> <li>– Percentage of customer requests responded to within 24 hours per water/waste water/storm network</li> </ul>

Table 21 Key Performance Indicators – Machinery &amp; Equipment

Level	KPI (Reported Annually)
Strategic	<ul style="list-style-type: none"> <li>– Percentage of total reinvestment compared to asset replacement value</li> <li>– Completion of strategic plan objectives</li> </ul>
Financial Indicators	<ul style="list-style-type: none"> <li>– Annual revenues compared to annual expenditures</li> <li>– Annual replacement value depreciation compared to annual expenditures</li> <li>– Cost per capita for machinery &amp; equipment</li> <li>– Revenue required to maintain annual network growth</li> <li>– Total cost of borrowing vs. total cost of service</li> </ul>
Tactical	<ul style="list-style-type: none"> <li>– Percentage of all machinery &amp; equipment replaced</li> <li>– Average age of machinery &amp; equipment assets</li> <li>– Percent of machinery &amp; equipment rated poor or critical</li> <li>– Percentage of fleet replacement value spent on operations and maintenance</li> </ul>
Operational Indicators	<ul style="list-style-type: none"> <li>– Average downtime per machinery &amp; equipment asset</li> <li>– Ratio of preventative maintenance repairs vs. reactive repairs</li> <li>– Percent of machinery &amp; equipment that received preventative maintenance</li> <li>– Number/type of service requests</li> </ul>

Table 22 Key Performance Indicators – Land Improvements

Level	KPI (Reported Annually)
Strategic	<ul style="list-style-type: none"> <li>– Percentage of total reinvestment compared to asset replacement value</li> <li>– Completion of strategic plan objectives (related buildings and facilities)</li> </ul>
Financial Indicators	<ul style="list-style-type: none"> <li>– Annual revenues compared to annual expenditures</li> <li>– Annual replacement value depreciation compared to annual expenditures</li> <li>– Cost per capita for supplying parks, playgrounds, etc.</li> <li>– Repair and maintenance costs per square meters</li> </ul>
Tactical	<ul style="list-style-type: none"> <li>– Overall park condition index as a percentage of desired condition index</li> <li>– Annual adjustment in condition indexes</li> <li>– Annual percentage of new parkland</li> <li>– Percent of park land and infrastructure rated poor or critical</li> <li>– Percentage of replacement value spent on operations and maintenance</li> <li>– Parkland per capita</li> </ul>
Operational Indicators	<ul style="list-style-type: none"> <li>– Percentage of park and infrastructure inspected within the last five years</li> <li>– Number/type of service requests</li> <li>– Percentage of customer requests responded to within 24 hours</li> </ul>



### 3. Future Performance

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In addition to the financial capacity, and legislative requirements, e.g., *Safe Drinking Water Act*, the Minimum Maintenance Standards for municipal highways, building codes and the *Accessibility for Ontarians with Disability Act*, many factors, internal and external, can influence the establishment of LOS and their associated KPIs, both target and actual, including the municipality's overarching mission as an organization, the current state of its infrastructure, and the municipality's financial capacity.

#### **Strategic Objectives and Corporate Goals**

The municipality's long-term direction is outlined in its corporate and strategic plans. This direction will dictate the types of services it aims to deliver to its residents and the quality of those services. These high level goals are vital in identifying strategic (long-term) infrastructure priorities and as a result, the investments needed to produce desired levels of service.

#### **State of the Infrastructure**

The current state of capital assets will determine the quality of service the municipality can deliver to its residents. As such, levels of service should reflect the existing capacity of assets to deliver those services, and may vary (increase) with planned maintenance, rehabilitation or replacement activities and timelines.

#### **Community Expectations**

The general public will often have qualitative and quantitative opinions and insights regarding the levels of service a particular asset should deliver, e.g., what a road in 'good' condition should look like or the travel time between destinations. The public should be consulted in establishing LOS; however, the discussions should be centered on clearly outlining the lifecycle costs associated with delivering any improvements in LOS.

#### **Economic Trends**

Macroeconomic trends will have a direct impact on the LOS for most infrastructure services. Fuel costs, fluctuations in interest rates, and the purchasing power of the Canadian dollar can impede or facilitate any planned growth in infrastructure services.

#### **Demographic Changes**

The type of residents that dominate a municipality can also serve as infrastructure demand drivers, and as a result, can change how a municipality allocates its resources (e.g., an aging population may require diversion of resources from parks and sports facilities to additional wellbeing centers). Population growth is also a significant demand driver for existing assets (lowering LOS), and may require the municipality to construct new infrastructure to parallel community expectations.

#### **Environmental Change**

Forecasting for infrastructure needs based on climate change remains an imprecise science. However, broader environmental and weather patterns have a direct impact on the reliability of critical infrastructure services.

## **4. Monitoring, Updating and Actions**

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The municipality should collect data on its current performance against the KPIs listed and establish targets that reflect the current fiscal capacity of the municipality, its corporate and strategic goals, and as feasible, changes in demographics that may place additional demand on its various asset classes. For some asset classes, e.g., minor equipment, furniture, etc., cursory levels of service and their respective KPIs will suffice. For major infrastructure classes, detailed technical and customer-oriented KPIs can be critical. Once this data is collected and targets are established, the progress of the municipality should be tracked annually.

## VIII. Asset Management Strategies

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The asset management strategy will develop an implementation process that can be applied to the needs identification and prioritization of renewal, rehabilitation, and maintenance activities. This will assist in the production of a 10-year plan, including growth projections, to ensure the best overall health and performance of the municipality's infrastructure. This section includes an overview of condition assessment; the life cycle interventions required; and prioritization techniques, including risk, to determine which priority projects should move forward into the budget first.



# 1. Non-Infrastructure Solutions & Requirements

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The municipality should explore, as requested through the provincial requirements, which non-infrastructure solutions should be incorporated into the budgets for its infrastructure services. Non-Infrastructure solutions are such items as studies, policies, condition assessments, consultation exercises, etc., that could potentially extend the life of assets or lower total asset program costs in the future without a direct investment into the infrastructure.

Typical solutions for a municipality include linking the asset management plan to the strategic plan, growth and demand management studies, infrastructure master plans, better integrated infrastructure and land use planning, public consultation on levels of service, and condition assessment programs. As part of future asset management plans, a review of these requirements should take place, and a portion of the capital budget should be dedicated for these items in each programs budget.

It is recommended, under this category of solutions, that the municipality should develop and implement holistic condition assessment programs for all asset classes. This will advance the understanding of infrastructure needs, improve budget prioritization methodologies, and provide clearer path of what is required to achieve sustainable infrastructure programs.

# 2. Condition Assessment Programs

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The foundation of good asset management practice is based on having comprehensive and reliable information on the current condition of the infrastructure. Municipalities need to have a clear understanding regarding performance and condition of their assets, as all management decisions regarding future expenditures and field activities should be based on this knowledge. An incomplete understanding about an asset may lead to its premature failure or premature replacement.

Some benefits of holistic condition assessment programs within the overall asset management process are listed below:

- Understanding of overall network condition leads to better management practices
- Allows for the establishment of rehabilitation programs
- Prevents future failures and provides liability protection
- Potential reduction in operation/maintenance costs
- Accurate current asset valuation
- Allows for the establishment of risk assessment programs
- Establishes proactive repair schedules and preventive maintenance programs
- Avoids unnecessary expenditures
- Extends asset service life therefore improving level of service
- Improves financial transparency and accountability
- Enables accurate asset reporting which, in turn, enables better decision making

Condition assessment can involve different forms of analysis such as subjective opinion, mathematical models, or variations thereof, and can be completed through a very detailed or very cursory approach.

When establishing the condition assessment of an entire asset class, the cursory approach (metrics such as good, fair, poor, very poor) is used. This will be a less expensive approach when applied to thousands of assets, yet will still provide up to date information, and will allow for detailed assessment or follow up inspections on those assets captured as poor or critical condition later.

## **2.1 Pavement Network**

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Typical industry pavement inspections are performed by consulting firms using specialized assessment fleet equipped with various electronic sensors and data capture equipment. The fleet will drive the entire road network and typically collect two different types of inspection data – surface distress data and roughness data.

Surface distress data involves the collection of multiple industry standard surface distresses, which are captured either electronically, using sensing detection equipment mounted on the van, or visually, by the van's inspection crew. Roughness data capture involves the measurement of the roughness of the road, measured by lasers that are mounted on the inspection van's bumper, calibrated to an international roughness index.

Another option for a cursory level of condition assessment is for municipal road crews to perform simple windshield surveys as part of their regular patrol. Many municipalities have created data collection inspection forms to assist this process and to standardize what presence of defects would constitute a good, fair, poor, or critical score. Lacking any other data for the complete road network, this can still be seen as a good method and will assist greatly with the overall management of the road network. The CityWide Works software has a road patrol component built in that could capture this type of inspection data during road patrols in the field, enabling later analysis of rehabilitation and replacement needs for budget development.

It is recommended that the municipality continue to its pavement condition assessment program and that a portion of capital funding is dedicated to this. We also recommend expansion of this program to incorporate additional components.

## 2.2 Bridges & Culverts

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Ontario municipalities are mandated by the Ministry of Transportation to inspect all structures that have a span of 3 metres or more, according to the OSIM (Ontario Structure Inspection Manual).

Structure inspections must be performed by, or under the guidance of, a structural engineer, must be performed on a biennial basis (once every two years), and include such information as structure type, number of spans, span lengths, other key attribute data, detailed photo images, and structure element by element inspection, rating and recommendations for repair, rehabilitation, and replacement.

The best approach to develop a 10-year needs list for the municipality's structure portfolio would be to have the structural engineer who performs the inspections to develop a maintenance requirements report, and rehabilitation and replacement requirements report as part of the overall assignment. In addition to refining the overall needs requirements, the structural engineer should identify those structures that will require more detailed investigations and non-destructive testing techniques. Examples of these investigations are:

- Detailed deck condition survey
- Non-destructive delamination survey of asphalt covered decks
- Substructure condition survey
- Detailed coating condition survey
- Underwater investigation
- Fatigue investigation
- Structure evaluation

Through the OSIM recommendations and additional detailed investigations, a 10-year needs list will be developed for the municipality's bridges.

## 2.3 Buildings & Facilities

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The most popular and practical type of buildings and facility assessment involves qualified groups of trained industry professionals (engineers or architects) performing an analysis of the condition of a group of facilities, and their components, that may vary in terms of age, design, construction methods, and materials. This analysis can be done by walk-through inspection, mathematical modeling, or a combination of both. But the most accurate way of determining the condition requires a walk-through to collect baseline data. The following asset classifications are typically inspected:

- **Site Components** – property around the facility and includes the outdoor components such as utilities, signs, stairways, walkways, parking lots, fencing, courtyards and landscaping.
- **Structural Components** – physical components such as the foundations, walls, doors, windows, roofs.
- **Electrical Components** – all components that use or conduct electricity such as wiring, lighting, electric heaters, and fire alarm systems
- **Mechanical Components** – components that convey and utilize all non-electrical utilities within a facility such as gas pipes, furnaces, boilers, plumbing, ventilation, and fire extinguishing systems
- **Vertical Movement** – components used for moving people between floors of buildings such as elevators, escalators and stair lifts.

Once collected this type of information can be uploaded into the CityWide®, the municipality's asset management and asset registry software database in order for short- and long-term repair, rehabilitation and replacement reports to be generated to assist with programming the short- and long-term maintenance and capital budgets.

It is recommended that the municipality establish a facilities condition assessment program for its water and waste water assets, and establish supplementary condition assessment protocols for other buildings and facilities. It is also recommended that a portion of capital funding is dedicated to this.

## **2.4 Fleet and Machinery & Equipment**

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The typical approach to optimizing the maintenance expenditures of a corporate fleet and machinery & equipment is through routine asset inspections, routine servicing, and an established routine preventative maintenance program. Most, if not all, makes and models of fleet are supplied with maintenance manuals that define the appropriate schedules and routines for typical maintenance and servicing and also more detailed restoration or rehabilitation protocols.

The primary goal of good maintenance is to avoid or mitigate the consequence of failure of equipment or parts. An established preventative maintenance program serves to ensure this, as it will consist of scheduled inspections and follow up repairs of fleet and equipment in order to decrease breakdowns and excessive downtimes.

A good preventative maintenance program will include partial or complete overhauls of equipment at specific periods, including oil changes, lubrications, fluid changes and so on. In addition, workers can record equipment or part deterioration so they can schedule to replace or repair worn parts before they fail. The ideal preventative maintenance program would move further and further away from reactive repairs and instead towards the prevention of all equipment failure before it occurs.

It is recommended that a preventative maintenance routine is defined and established for all fleet and machinery & equipment assets, and that a software application is utilized for the overall management of the program.

## **2.5 Water**

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Unlike sewer mains, it is very difficult to inspect water mains from the inside due to the high pressure flow of water constantly underway within the water system. Physical inspections require a disruption of service to residents, can be an expensive exercise, and are time consuming to set up. It is recommended practice that physical inspection of water mains typically only occurs for high risk, large transmission mains within the system, and only when there is a requirement. There are a number of high tech inspection techniques in the industry for large diameter pipes but these should be researched first for applicability as they are quite expensive. Examples include remote eddy field current (RFEC), ultrasonic and acoustic techniques, impact echo (IE), and Georadar.

For the majority of pipes within the distribution network gathering key information in regards to the main and its environment can supply the best method to determine a general condition. Key data that may be used, along with weighting factors, to determine an overall condition score include age, material type, breaks, hydrant flow inspections and soil condition.

It is recommended that the municipality establish a watermain assessment program, and that funds are budgeted for this initiative.

## **2.6 Sewer Network Inspection (Waste water and Storm)**

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The most popular and practical type of waste water and storm sewer assessment is the use of Closed Circuit Television Video (CCTV). The municipality currently performs video inspections for its storm and waste water mains. The process involves a small robotic crawler vehicle with a CCTV camera attached that is lowered down a maintenance hole into the sewer main to be inspected.

The vehicle and camera then travels the length of the pipe providing a live video feed to a truck on the road above where a technician/inspector records defects and information regarding the pipe. A wide range of construction or deterioration problems can be captured including open/displaced joints, presence of roots, infiltration & inflow, cracking, fracturing, exfiltration, collapse, deformation of pipe and more. Therefore, sewer CCTV inspection is a very good tool for locating and evaluating structural defects and general condition of underground pipes.

Even though CCTV is an excellent option for inspection of sewers it is a fairly costly process and does take significant time to inspect a large volume of pipes.

Another option in the industry today is the use of Zoom Camera equipment. This is very similar to traditional CCTV, however, a crawler vehicle is not used but in its place a camera is lowered down a maintenance hole attached to a pole like piece of equipment. The camera is then rotated towards each connecting pipe and the operator above progressively zooms in to record all defects and information about each pipe. The downside to this technique is the further down the pipe the image is zoomed, the less clarity is available to accurately record defects and measurement. The upside is the process is far quicker and significantly less expensive and an assessment of the manhole can be provided as well. Also, it is important to note that 80% of pipe deficiencies generally occur within 20 metres of each manhole.

It is recommended that the municipality establish a sewer mains assessment program and that a portion of capital funding is dedicated to this. The municipality has included an allocation for this purpose in the draft 2017 capital budget, which is subject to Council approval.



## 2.5 Land Improvements

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CSA standards provide guidance on the process and protocols in regards to the inspection of parks and their associated assets, e.g., play spaces and equipment. The park inspection will involve qualified groups of trained industry professionals (operational staff or landscape architects) performing an analysis of the condition of a group of Parks and their components. The most accurate way of determining the condition requires a walk-through to collect baseline data. The following key asset classifications are typically inspected:

- **Physical Site Components** – physical components on the site of the park such as: fences, utilities, stairways, walkways, parking lots, irrigation systems, monuments, fountains.
- **Recreation Components** – physical components such as: playgrounds, bleachers, back stops, splash pads, and benches.
- **Land Site Components** – land components on the site of the park such as: landscaping, sports fields, trails, natural areas, and associated drainage systems.
- **Minor Park Facilities** – small facilities within the park site such as: sun shelters, washrooms, concession stands, change rooms, storage sheds.

It is recommended that the municipality establish a parks condition assessment program and that a portion of capital funding is dedicated to this.

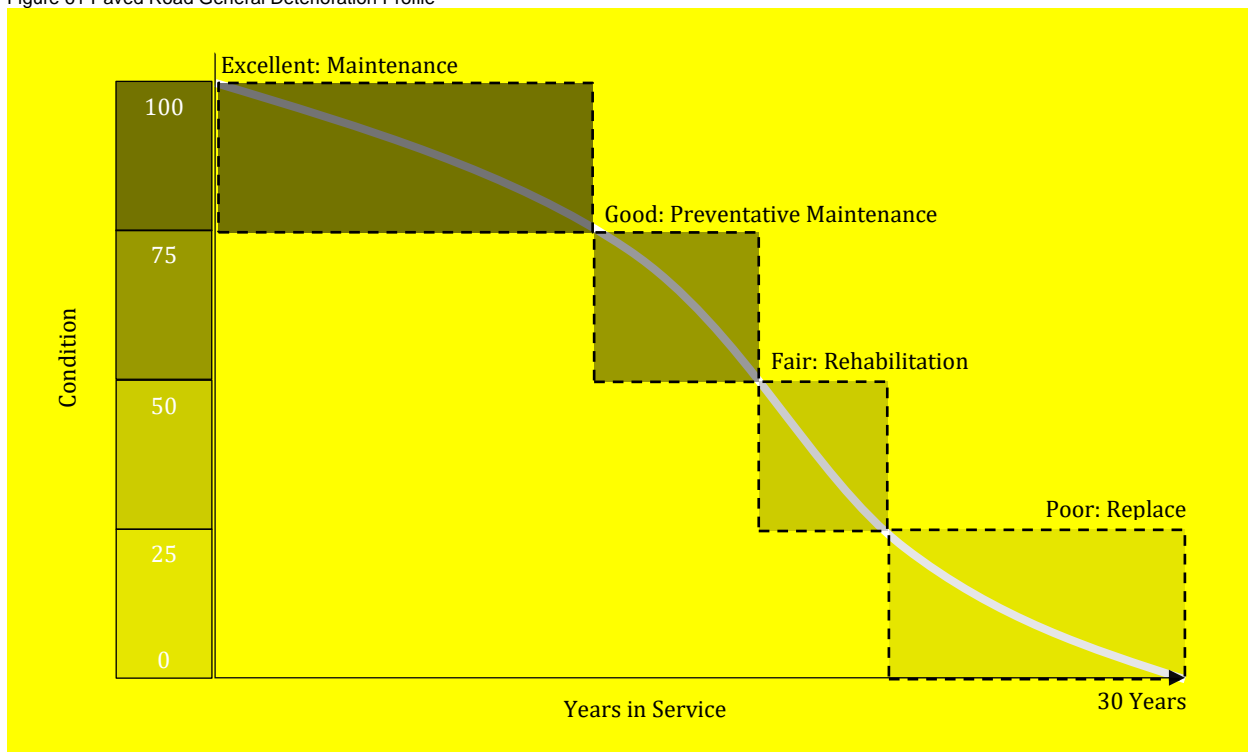
### 3. Life Cycle Analysis Framework

An industry review was conducted to determine which life cycle activities can be applied at the appropriate time in an asset's life, to provide the greatest additional life at the lowest cost. In the asset management industry, this is simply put as doing the right thing to the right asset at the right time. If these techniques are applied across entire asset networks or portfolios (e.g., the entire road network), the municipality could gain the best overall asset condition while expending the lowest total cost for those programs.

#### 3.1 Paved Roads

The following analysis has been conducted at a fairly high level, using industry standard activities and costs for paved roads. With future updates of this Asset Management Strategy, the municipality may wish to run the same analysis with a detailed review of municipality activities used for roads and the associated local costs for those work activities. All of this information can be input into the CityWide software suite in order to perform updated financial analysis as more detailed information becomes available. The following diagram depicts a general deterioration profile of a road with a 30-year life.

Figure 61 Paved Road General Deterioration Profile



As shown above, during the road's life cycle there are various windows available for work activity that will maintain or extend the life of the asset. These windows are: maintenance; preventative maintenance; rehabilitation; and replacement or reconstruction.

The windows or thresholds for when certain work activities should be applied to also coincide approximately with the condition state of the asset as shown below:

Table 23 Asset Condition and Related Work Activity – Paved Roads

Condition	Condition Range	Work Activity
Excellent (Maintenance only phase)	100-76	<ul style="list-style-type: none"> <li>Maintenance only</li> </ul>
Good (Preventative maintenance phase)	75 - 51	<ul style="list-style-type: none"> <li>Crack sealing</li> <li>Emulsions</li> </ul>
Fair (Rehabilitation phase)	50 -26	<ul style="list-style-type: none"> <li>Resurface - mill &amp; pave</li> <li>Resurface - asphalt overlay</li> <li>Single &amp; double surface treatment (for rural roads)</li> </ul>
Poor (Reconstruction phase)	25 - 1	<ul style="list-style-type: none"> <li>Reconstruct - pulverize and pave</li> <li>Reconstruct - full surface and base reconstruction</li> </ul>
Critical (Reconstruction phase)	0	<ul style="list-style-type: none"> <li>Critical includes assets beyond their useful lives which make up the backlog. They require the same interventions as the 'poor' category above.</li> </ul>

With future updates of this asset management strategy, the municipality may wish to review the above condition ranges and thresholds for when certain types of work activity occur, and adjust to better suit the municipality's work program. Also note: when adjusting these thresholds, it actually adjusts the level of service provided and ultimately changes the amount of money required. These threshold and condition ranges can be easily updated and a revised financial analysis can be calculated. These adjustments will be an important component of future Asset Management Plans, as the province requires each municipality to present various management options within the financing plan.

It is recommended that the municipality establish a life cycle activity framework for the various classes of paved road within their transportation network.

### 3.2 Bridges & Culverts

The best approach to develop a 10 year needs list for the municipality's bridge structure portfolio would be to have the structural engineer who performs the inspections to develop a maintenance requirements report, a rehabilitation and replacement requirements report and identify additional detailed inspections as required.

### 3.3 Facilities & Buildings

The best approach to develop a 10-year needs list for the municipality's facilities portfolio would be to have the engineers, operational staff or architects who perform the facility inspections to also develop a complete portfolio maintenance requirements report and rehabilitation and replacement requirements report, and also identify additional detailed inspections and follow up studies as

required. This may be performed as a separate assignment once all individual facility audits/inspections are complete.

The above reports could be considered the beginning of a 10-year maintenance and capital plan, however, within the facilities industry there are other key factors that should be considered to determine over all priorities and future expenditures. Some examples would be functional/legislative requirements, energy conservation programs and upgrades, customer complaints and health and safety concerns, and also customer expectations balanced with willingness to pay initiatives.

It is recommended that the municipality establish a prioritization framework for the facilities asset class that incorporates the key components outlined above.

### **3.4 Fleet**

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The best approach to develop a 10-year needs list for the municipality's fleet and vehicle portfolio would first be through a defined preventative maintenance program, and secondly, through an optimized life cycle vehicle replacement schedule. The preventative maintenance program would serve to determine budget requirements for operating and minor capital expenditures for part renewal and major refurbishments and rehabilitations. An optimized vehicle replacement program will ensure a vehicle is replaced at the correct point in time in order to minimize overall cost of ownership, minimize costly repairs and downtime, while maximizing potential re-sale value. There is significant benchmarking information available within the fleet industry in regards to vehicle life cycles which can be used to assist in this process. Once appropriate replacement schedules are established the short and long term budgets can be funded accordingly.

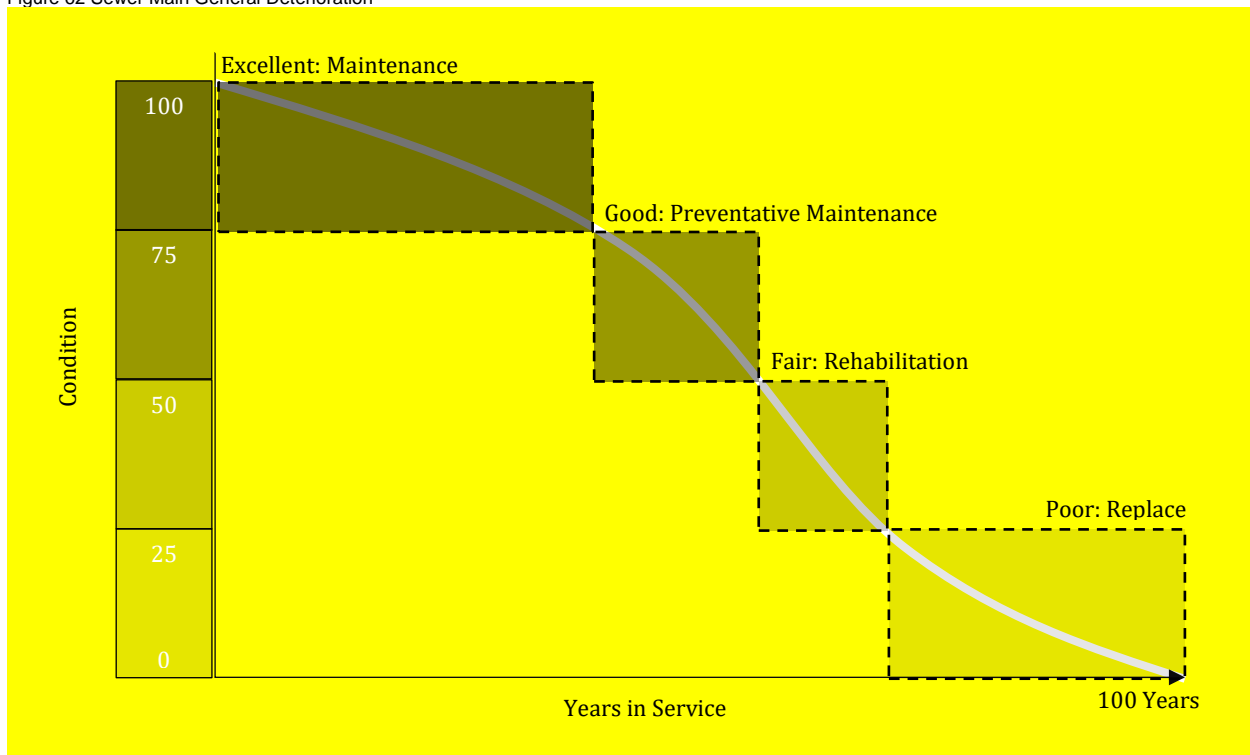
There are, of course, functional aspects of fleet management that should also be examined in further detail as part of the long-term management plan, such as fleet utilization and incorporating green fleet, etc. It is recommended that the municipality establish a prioritization framework for the fleet asset class that incorporates the key components outlined above.

### **3.5 Waste water and Storm Sewers**

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The following analysis has been conducted at a fairly high level, using industry standard activities and costs for waste water and storm sewer rehabilitation and replacement. With future updates of this asset management strategy, the municipality may wish to run the same analysis with a detailed review of activities used for sewer mains and the associated local costs for those work activities. This information can be input into the CityWide software suite in order to perform updated financial analysis as more detailed information becomes available. The following diagram depicts a general deterioration profile of a sewer main with a 100 year life.

Figure 62 Sewer Main General Deterioration



As shown above, during the sewer main’s life cycle there are various windows available for work activity that will maintain or extend the life of the asset. These windows are: maintenance; major maintenance; rehabilitation; and replacement or reconstruction. The windows or thresholds for when certain work activities should be applied also coincide approximately with the condition state of the asset as shown below:

Table 24 Asset Condition and Related Work Activity for Sewer Mains

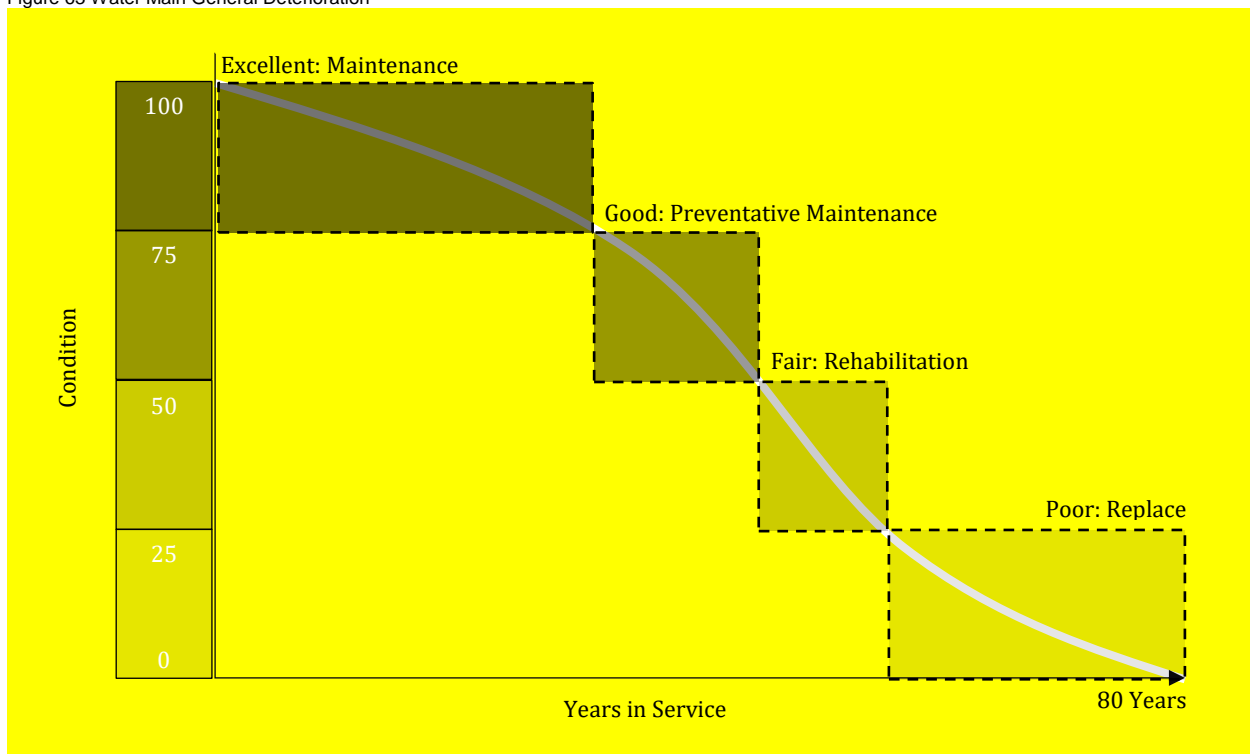
Condition	Condition Range	Work Activity
Excellent (Maintenance only phase)	100-76	<ul style="list-style-type: none"> <li>Maintenance only (cleaning &amp; flushing etc.)</li> </ul>
Good (Preventative maintenance phase)	75 - 51	<ul style="list-style-type: none"> <li>Mahhole repairs</li> <li>Small pipe section repairs</li> </ul>
Fair (Rehabilitation phase)	50 -26	<ul style="list-style-type: none"> <li>Structural relining</li> </ul>
Poor (Reconstruction phase)	25 - 1	<ul style="list-style-type: none"> <li>Pipe replacement</li> </ul>
Critical (Reconstruction phase)	0	<ul style="list-style-type: none"> <li>Critical includes assets beyond their useful lives which make up the backlog. They require the same interventions as the “poor” category above.</li> </ul>

With future updates of this Asset Management Strategy the municipality may wish to review the above condition ranges and thresholds for when certain types of work activity occur, and adjust to better suit the municipality's work program. Also note: when adjusting these thresholds, it actually adjusts the level of service provided and ultimately changes the amount of money required. These adjustments will be an important component of future asset management plans, as the province requires each municipality to present various management options within the financing plan.

### 3.6 Water

As with roads and sewers above, the following analysis has been conducted at a fairly high level, using industry standard activities and costs for water main rehabilitation and replacement. The following diagram depicts a general deterioration profile of a water main with an 80 year life.

Figure 63 Water Main General Deterioration



As shown above, during the water main's life cycle there are various windows available for work activity that will maintain or extend the life of the asset. These windows are: maintenance; major maintenance; rehabilitation; and replacement or reconstruction. The windows or thresholds for when certain work activities should be applied also coincide approximately with the condition state of the asset as shown in Table 25.

Table 25 Asset Condition and Related Work Activity for Water Mains

Condition	Condition Range	Work Activity
Excellent (Maintenance only phase)	100-76	– Maintenance only (cleaning & flushing etc.)
Good (Preventative maintenance phase)	75 - 51	– Water main break repairs – Small pipe section repairs
Fair (Rehabilitation phase)	50 -26	– Structural water main relining
Poor (Reconstruction phase)	25 - 1	– Pipe replacement
Critical (Reconstruction phase)	0	– Critical includes assets beyond their useful lives which make up the backlog. They require the same interventions as the “poor” category above.

## 4. Growth and Demand

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Growth is a critical infrastructure demand driver for most infrastructure services. As such, the municipality must not only account for the lifecycle cost for its existing asset portfolio, but those of any anticipated and forecasted capital projects associated specifically with growth. The population for Kenora, currently 15,096, has fluctuated over the last decade, increasing 1.1% between 2006-2011 and decreasing 1.6% between 2011-2016.

The municipality's 2015-2020 Strategic Plan forecasts an increasing population, rising to 16,202 by 2023. As such, a comprehensive understanding of existing asset condition and thorough demographic analyses can be pivotal in informing decision-making. In addition to a fluctuating population, demographic shifts (e.g., aging population) can place disproportionate demand on certain asset categories such as housing and social services.

## 5. Project Prioritization and Risk Management

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Generally, infrastructure needs exceed municipal capacity. As such, municipalities rely heavily on provincial and federal programs and grants to finance important capital projects. Fund scarcity means projects and investments must be carefully selected based on the state of infrastructure, economic development goals, and the needs of an evolving and growing community. These factors, along with social and environmental considerations will form the basis of a robust risk management framework.

### 5.1 Defining Risk Management

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From an asset management perspective, risk is a function of the consequences of failure (e.g., the negative economic, financial, and social consequences of an asset in the event of a failure); and, the probability of failure (e.g., how likely is the asset to fail in the short- or long-term). The consequences of failure are typically reflective of:

- An asset's importance in an overall system:  
For example, the failure of an individual computer workstation for which there are readily available substitutes is much less consequential and detrimental than the failure of a network server or telephone exchange system.
- The criticality of the function performed:  
For example, a mechanical failure on a piece road construction equipment may delay the progress of a project, but a mechanical failure on a fire pumper truck may lead to immediate life safety concerns for fire fighters, and the public, as well as significant property damage.
- The exposure of the public and/or staff to injury or loss of life:  
For example, a single sidewalk asset may demand little consideration and carry minimum importance to The municipality's overall pedestrian network and performs a modest function. However, members of the public interact directly with the asset daily and are exposed to potential injury due to any trip hazards or other structural deficiencies that may exist.



The probability of failure is generally a function of an asset's physical condition, which is heavily influenced by the asset's age and the amount of investment that has been made in the maintenance and renewal of the asset throughout its life.

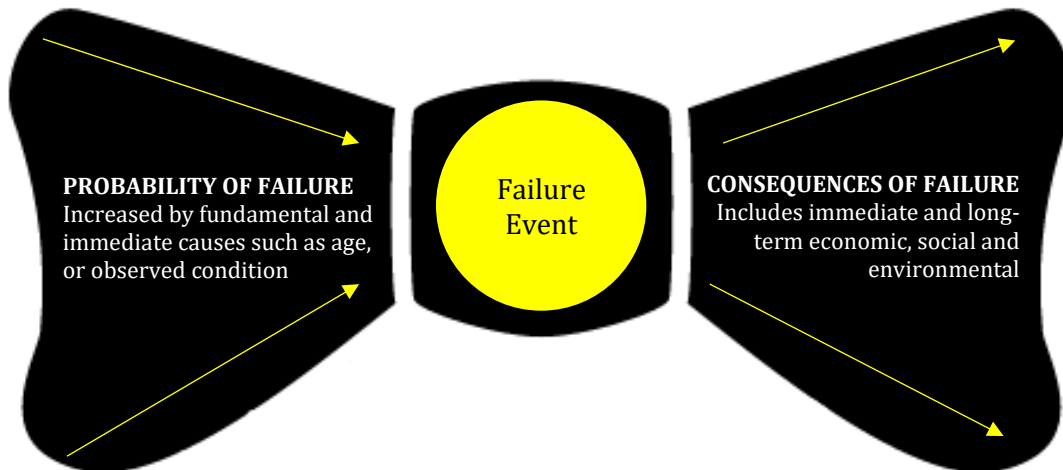
Risk mitigation is traditionally thought of in terms of safety and liability factors. In asset management, the definition of risk should heavily emphasize these factors but should be expanded to consider the risks to the municipality's ability to deliver targeted levels of service

- The impact that actions (or inaction) on one asset will have on other related assets
- The opportunities for economic efficiency (realized or lost) relative to the actions taken

## 5.2 Risk Matrices

Using the logic above, a risk matrix will illustrate each asset's overall risk, determined by multiplying the probability of failure (PoF) scores with the consequence of failure (CoF) score, as illustrated in the table below. This can be completed as a holistic exercise against any data set by determining which factors (or attributes) are available and will contribute to the PoF or CoF of an asset. The following diagram (known as a bowtie model in the risk industry) illustrates this concept. The probability of failure is increased as more and more factors collude to cause asset failure.

Figure 64 Bow Tie Risk Model



## Probability of Failure

In this AMP, the probability of a failure event is predicted by the condition of the asset.

Table 26 Probability of Failure – All Assets

Asset Classes	Condition Rating	Probability of Failure
ALL	0-20 Very Poor	5 – Very High
	21-40 Poor	4 – High
	41-60 Fair	3 – Moderate
	61-80 Good	2 – Low
	81-100 Excellent	1 – Very Low

## Consequence of Failure

The consequence of failure for the asset classes analyzed in this AMP will be determined either by the replacement costs of assets, or their material types, classifications (or other attributes). Asset classes for which replacement cost is used include: bridges & culverts, buildings, land improvements, fleet, and machinery & equipment. This approach is premised on the assumption that the higher the replacement cost, the larger (and likely more important) the asset, requiring higher risk scoring.

Assets for which other attributes are used include: water, wastewater, storm, roads, and rate facilities. Attributes are selected based on their impact on service delivery. For linear infrastructure, pipe diameter is used to estimate a suitable consequence of failure score. Scoring for roads and rate-based facilities is based on classification or asset type.

Table 27 Consequence of Failure – Roads

Road Classification	Consequence of failure
Gravel	Score of 1
Roads Surface – Low Class Bituminous – Surface Treatment	Score of 3
Roads Surface – High Class Bituminous – Surface Treatment	Score of 4
Roads Surface – HL4 Asphalt	Score of 5

Table 28 Consequence of Failure – Bridges & Culverts

Replacement Value	Consequence of failure
Up to \$200k	Score of 1
\$201 to \$400k	Score of 2
\$401 to \$1 million	Score of 3
\$1 million to \$5 million	Score of 4
\$5 million and over	Score of 5

Table 29 Consequence of Failure – Water Mains

Pipe Diameter	Consequence of Failure
Less than 100mm	Score of 1
101-200mm	Score of 2
201-300mm	Score of 3
301-400mm	Score of 4
400mm and over	Score of 5

Table 30 Consequence of Failure – Waste water Sewers

Pipe Diameter	Consequence of failure
Less than 200mm	Score of 1
200-300mm	Score of 2
301-400mm	Score of 3
401-550mm	Score of 4
551mm and over	Score of 5

Table 31 Consequence of Failure – Storm Sewers

Pipe Diameter	Consequence of Failure
Less than 200mm	Score of 1
201-300mm	Score of 2
301-400mm	Score of 3
401-500mm	Score of 4
501mm and over	Score of 5

Table 32 Consequence of Failure – Buildings &amp; Facilities

Replacement Value	Consequence of failure
Up to \$50k	Score of 1
\$51k to \$100k	Score of 2
\$101k to \$300k	Score of 3
\$301k to \$1 million	Score of 4
Over \$1 million	Score of 5

Table 33 Consequence of Failure – Machinery &amp; Equipment

Replacement Value	Consequence of failure
Up to \$10k	Score of 1
\$11k to \$15k	Score of 2
\$16k to \$30k	Score of 3
\$31k to \$100k	Score of 4
Over \$100k	Score of 5

Table 34 Consequence of Failure – Land Improvements

Replacement Value	Consequence of failure
Up to \$25k	Score of 1
\$26k to \$50k	Score of 2
\$51k to \$100k	Score of 3
\$101k to \$1 million	Score of 4
Over \$1 million	Score of 5

Table 35 Consequence of Failure – Fleet

Replacement Value	Consequence of failure
Up to \$25k	Score of 1
\$26k to \$60k	Score of 2
\$61k to \$100k	Score of 3
\$101k to \$350k	Score of 4
Over \$350k	Score of 5

The risk matrices that follow show the distribution of assets within each asset class according to the probability and likelihood of failure scores as discussed above.

Figure 65 Distribution of Assets Based on Risk – All Asset Classes

Consequence	5	91 Assets 337,368.67 m2, m, unit(s) \$56,159,226.00	101 Assets 143,045.37 m2, unit(s), m \$79,178,098.00	106 Assets 19,608.95 m2, m, unit(s) \$13,349,337.00	22 Assets 6,911.60 m2, unit(s), m \$8,652,678.00	157 Assets 16,518.62 m2, unit(s), m \$14,950,013.00
	4	91 Assets 7,698.79 unit(s), m, m2 \$29,605,292.00	91 Assets 12,604.43 m2, unit(s), m \$40,255,946.00	298 Assets 7,662.00 unit(s), m \$13,613,140.00	86 Assets 4,685.05 unit(s), m \$6,471,921.00	182 Assets 6,997.52 unit(s), m \$10,717,198.00
	3	66 Assets 9,226.56 m, m2, unit(s) \$12,227,559.00	94 Assets 199,594.76 m2, unit(s), m \$14,712,938.00	140 Assets 69,668.11 m2, unit(s), m \$10,496,640.00	51 Assets 25,057.46 m2, unit(s), m \$2,477,174.00	166 Assets 36,896.51 m2, unit(s), m \$6,834,866.00
	2	172 Assets 13,131.86 m2, m, unit(s) \$13,283,773.00	412 Assets 27,558.82 unit(s), m2, m \$17,946,571.00	843 Assets 62,702.35 unit(s), m2, m \$31,178,508.00	444 Assets 39,434.02 unit(s), m2, m \$14,571,760.00	739 Assets 60,864.42 unit(s), m2, m \$28,903,582.00
	1	354 Assets 11,097.91 unit(s), m2, m \$11,747,558.00	714 Assets 35,366.22 m2, unit(s), m \$25,725,877.00	1650 Assets 23,450.08 m2, unit(s), m \$23,552,445.00	1622 Assets 25,791.56 m2, unit(s), m \$19,273,937.00	1370 Assets 46,765.05 m2, unit(s), m \$20,989,301.00
		1	2	3	4	5
		Probability				

Figure 66 Distribution of Assets Based on Risk – Road Network (Gravel, HCB, LCB, HL4)

Consequence	5	75 Assets 337,348.25 m2, m \$33,911,810.00	70 Assets 142,405.08 m2 \$8,102,782.00	14 Assets 14,253.33 m2, m \$1,172,072.00	2 Assets 6,185.55 m2 \$276,932.00	3 Assets 9,409.63 m2 \$418,771.00
	4	40 Assets 7,319.72 m2, unit(s), m \$11,208,037.00	22 Assets 11,885.15 m2, m \$6,975,718.00	3 Assets 351.00 m \$314,274.00	1 Assets 130.00 m \$41,231.00	2 Assets 230.00 m \$65,021.00
	3	4 Assets 4.00 m2, unit(s) \$1,034,076.00	20 Assets 185,355.23 m2 \$1,803,875.00	9 Assets 59,048.45 m2 \$373,849.00	2 Assets 19,250.00 m2 \$84,364.00	5 Assets 28,612.00 m2 \$165,658.00
	2	0 Assets - \$0.00	0 Assets - \$0.00	0 Assets - \$0.00	0 Assets - \$0.00	0 Assets - \$0.00
	1	0 Assets - \$0.00	0 Assets - \$0.00	0 Assets - \$0.00	0 Assets - \$0.00	0 Assets - \$0.00
		1	2	3	4	5
		Probability				

Figure 67 Distribution of Assets Based on Risk – Bridges & Culverts

Consequence	5	0 Assets - \$0.00	7 Assets 8.00 unit(s) \$65,937,738.00	0 Assets - \$0.00	0 Assets - \$0.00	0 Assets - \$0.00
	4	0 Assets - \$0.00	17 Assets 17.00 unit(s) \$26,995,928.00	0 Assets - \$0.00	0 Assets - \$0.00	0 Assets - \$0.00
	3	1 Assets 1.00 unit(s) \$554,737.00	7 Assets 7.00 unit(s) \$3,558,900.00	3 Assets 3.00 unit(s) \$2,002,261.00	0 Assets - \$0.00	1 Assets 1.00 unit(s) \$502,861.00
	2	2 Assets 2.00 unit(s) \$582,161.00	2 Assets 2.00 unit(s) \$609,230.00	1 Assets 1.00 unit(s) \$303,908.00	0 Assets - \$0.00	0 Assets - \$0.00
	1	9 Assets 92.50 unit(s), m \$218,432.00	6 Assets 31.43 m, unit(s) \$375,527.00	146 Assets 1,898.61 unit(s), m \$1,275,246.00	218 Assets 2,334.82 m \$1,192,550.00	10 Assets 145.24 unit(s), m \$188,511.00
		1	2	3	4	5
		Probability				

Figure 68 Distribution of Assets Based on Risk – Water System

Consequence	5	1 Assets 1.00 unit(s) \$2,855,449.00	0 Assets - \$0.00	5 Assets 2,049.30 m \$1,389,232.00	4 Assets 155.64 m \$145,296.00	0 Assets - \$0.00
	4	2 Assets 1.00 unit(s), m \$1,405,420.00	2 Assets 123.05 m \$82,128.00	6 Assets 401.68 m \$303,933.00	22 Assets 2,081.97 m \$1,455,087.00	0 Assets - \$0.00
	3	25 Assets 8,534.15 m \$5,411,972.00	3 Assets 36.97 m \$24,652.00	50 Assets 8,385.60 m \$5,226,478.00	13 Assets 922.36 m \$568,883.00	41 Assets 5,009.34 m \$2,982,388.00
	2	35 Assets 4,067.43 m, unit(s) \$3,061,783.00	93 Assets 10,298.47 m \$5,976,986.00	248 Assets 23,536.13 m \$13,294,727.00	72 Assets 6,613.24 m \$3,562,765.00	256 Assets 30,645.21 m \$16,526,172.00
	1	5 Assets 258.23 m, unit(s) \$208,115.00	55 Assets 10,809.53 m \$5,848,967.00	45 Assets 3,060.53 m \$1,671,870.00	6 Assets 372.86 m \$198,995.00	110 Assets 9,182.79 m \$4,793,393.00
		1	2	3	4	5
		Probability				

Figure 69 Distribution of Assets Based on Risk – Waste water Services

Consequence	5	1 Assets 5 m \$4,853	8 Assets 204 m \$173,089	32 Assets 1,465 unit(s), m \$1,572,594	1 Assets 112 m \$92,865	2 Assets 259 m \$220,613
	4	3 Assets 3 unit(s) \$1,510,990	4 Assets 248 m \$253,184	8 Assets 418 unit(s), m \$2,415,223	17 Assets 913 m \$663,112	31 Assets 3,450 unit(s), m \$3,185,548
	3	8 Assets 390 m, unit(s) \$1,638,879	32 Assets 7,005 m, unit(s) \$5,837,882	4 Assets 412 m \$286,286	12 Assets 679 m \$420,352	21 Assets 1,037 unit(s), m \$794,017
	2	91 Assets 7,066 m, unit(s) \$5,319,908	257 Assets 13,071 m, unit(s) \$7,570,261	368 Assets 24,111 m, unit(s) \$13,634,720	302 Assets 14,738 m \$7,276,465	301 Assets 18,287 unit(s), m \$9,415,114
	1	57 Assets 9,040 unit(s), m \$6,347,947	168 Assets 15,026 unit(s), m \$9,665,306	251 Assets 1,213 unit(s), m \$4,458,661	587 Assets 1,016 unit(s), m \$7,312,445	441 Assets 4,295 unit(s), m \$5,693,284
		1	2	3	4	5
		Probability				

Figure 70 Distribution of Assets Based on Risk – Storm

Consequence	5	1 Assets 1.00 m \$49,816.00	11 Assets 423.62 m \$304,801.00	49 Assets 1,835.74 m \$1,447,357.00	10 Assets 453.30 m \$384,463.00	143 Assets 6,128.74 m \$5,989,708.00
	4	14 Assets 343.06 m \$115,193.00	25 Assets 309.25 m \$175,491.00	259 Assets 6,468.86 m \$3,718,642.00	32 Assets 1,158.24 m \$630,838.00	107 Assets 3,137.47 m \$1,693,371.00
	3	6 Assets 275.22 m \$473,995.00	12 Assets 316.23 m \$173,640.00	60 Assets 1,805.33 m \$1,000,935.00	12 Assets 279.38 m \$143,467.00	62 Assets 1,500.97 m \$727,308.00
	2	6 Assets 63.60 m, unit(s) \$689,791.00	34 Assets 479.01 m \$196,514.00	207 Assets 3,791.08 m \$1,595,160.00	53 Assets 1,031.47 m \$426,694.00	145 Assets 2,645.84 m \$1,078,889.00
	1	3 Assets 86.30 m \$132,959.00	23 Assets 457.81 m \$201,549.00	51 Assets 888.42 m \$393,371.00	25 Assets 346.04 m \$155,008.00	21 Assets 688.44 m \$291,832.00
		1	2	3	4	5
		Probability				

Figure 71 Distribution of Assets Based on Risk – Buildings & Facilities

Consequence	5	9 Assets 9 unit(s) \$17,142,236	3 Assets 3 unit(s) \$3,826,241	2 Assets 2 unit(s) \$2,308,110	1 Assets 1 unit(s) \$4,345,610	0 Assets - \$0
	4	14 Assets 14 unit(s) \$8,184,016	4 Assets 5 unit(s) \$2,807,510	9 Assets 9 unit(s) \$4,757,824	4 Assets 4 unit(s) \$2,065,717	1 Assets 1 unit(s) \$589,055
	3	5 Assets 5 unit(s) \$666,996	6 Assets 6 unit(s) \$1,033,207	7 Assets 7 unit(s) \$1,391,901	3 Assets 3 unit(s) \$410,705	2 Assets 2 unit(s) \$325,095
	2	8 Assets 8 unit(s) \$619,839	6 Assets 6 unit(s) \$446,486	3 Assets 3 unit(s) \$202,717	0 Assets - \$0	0 Assets - \$0
	1	23 Assets 23 unit(s) \$534,592	19 Assets 19 unit(s) \$463,143	5 Assets 5 unit(s) \$127,915	12 Assets 12 unit(s) \$96,374	8 Assets 8 unit(s) \$48,768
		1	2	3	4	5
		Probability				

Figure 72 Distribution of Assets Based on Risk – Machinery & Equipment

Consequence	5	1 Assets 1.00 unit(s) \$165,361.00	0 Assets - \$0.00	3 Assets 3.00 unit(s) \$484,864.00	0 Assets - \$0.00	3 Assets 32.00 unit(s) \$470,857.00
	4	5 Assets 5.00 unit(s) \$283,773.00	4 Assets 4.00 unit(s) \$256,643.00	5 Assets 5.00 unit(s) \$301,239.00	4 Assets 392.00 unit(s) \$233,773.00	25 Assets 163.00 unit(s) \$1,359,654.00
	3	7 Assets 7.00 unit(s) \$139,409.00	7 Assets 7.00 unit(s) \$149,235.00	6 Assets 6.00 unit(s) \$123,250.00	7 Assets 9.00 unit(s) \$146,390.00	30 Assets 40.00 unit(s) \$646,877.00
	2	4 Assets 4.00 unit(s) \$45,873.00	5 Assets 5.00 unit(s) \$63,098.00	8 Assets 8.00 unit(s) \$95,215.00	5 Assets 16.00 unit(s) \$57,022.00	13 Assets 13.00 unit(s) \$156,922.00
	1	2 Assets 2.00 unit(s) \$10,952.00	3 Assets 3.00 unit(s) \$18,013.00	5 Assets 5.00 unit(s) \$38,796.00	12 Assets 12.00 unit(s) \$42,619.00	292 Assets 292.00 unit(s) \$679,188.00
		1	2	3	4	5
		Probability				



Figure 73 Distribution of Assets Based on Risk – Land Improvements

Consequence	5	0 Assets - \$0.00	0 Assets - \$0.00	0 Assets - \$0.00	1 Assets 1.00 unit(s) \$2,210,743.00	2 Assets 2.00 unit(s) \$3,312,309.00
	4	3 Assets 3.00 unit(s) \$1,022,390.00	0 Assets - \$0.00	0 Assets - \$0.00	0 Assets - \$0.00	1 Assets 1.00 unit(s) \$199,586.00
	3	0 Assets - \$0.00	0 Assets - \$0.00	0 Assets - \$0.00	0 Assets - \$0.00	0 Assets - \$0.00
	2	2 Assets 2.00 unit(s) \$60,741.00	0 Assets - \$0.00	0 Assets - \$0.00	0 Assets - \$0.00	0 Assets - \$0.00
	1	2 Assets 2.00 unit(s) \$25,067.00	1 Assets 1.00 unit(s) \$20,568.00	1 Assets 1.00 unit(s) \$21,516.00	0 Assets - \$0.00	0 Assets - \$0.00
		1	2	3	4	5
		Probability				

Figure 74 Distribution of Assets Based on Risk – Fleet

Consequence	5	2 Assets 2 unit(s) \$823,942	2 Assets 2 unit(s) \$833,447	0 Assets - \$0	3 Assets 3 unit(s) \$1,196,769	3 Assets 3 unit(s) \$1,083,661
	4	3 Assets 3 unit(s) \$683,356	5 Assets 5 unit(s) \$801,863	3 Assets 3 unit(s) \$659,459	6 Assets 6 unit(s) \$1,382,163	12 Assets 12 unit(s) \$2,497,897
	3	4 Assets 4 unit(s) \$323,247	0 Assets - \$0	1 Assets 1 unit(s) \$91,680	1 Assets 1 unit(s) \$64,268	3 Assets 3 unit(s) \$273,183
	2	8 Assets 8 unit(s) \$265,329	5 Assets 5 unit(s) \$221,780	2 Assets 2 unit(s) \$59,583	6 Assets 6 unit(s) \$229,086	21 Assets 21 unit(s) \$763,370
	1	1 Assets 1 unit(s) \$9,910	4 Assets 4 unit(s) \$47,108	5 Assets 5 unit(s) \$71,104	2 Assets 2 unit(s) \$21,749	7 Assets 7 unit(s) \$84,341
		1	2	3	4	5
		Probability				

# IX. Financial Strategy

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## 1. General Overview

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In order for an AMP to be effective and meaningful, it must be integrated with financial planning and long-term budgeting. The development of a comprehensive financial plan will allow the municipality to identify the financial resources required for sustainable asset management based on existing asset inventories, desired levels of service, and projected growth requirements.



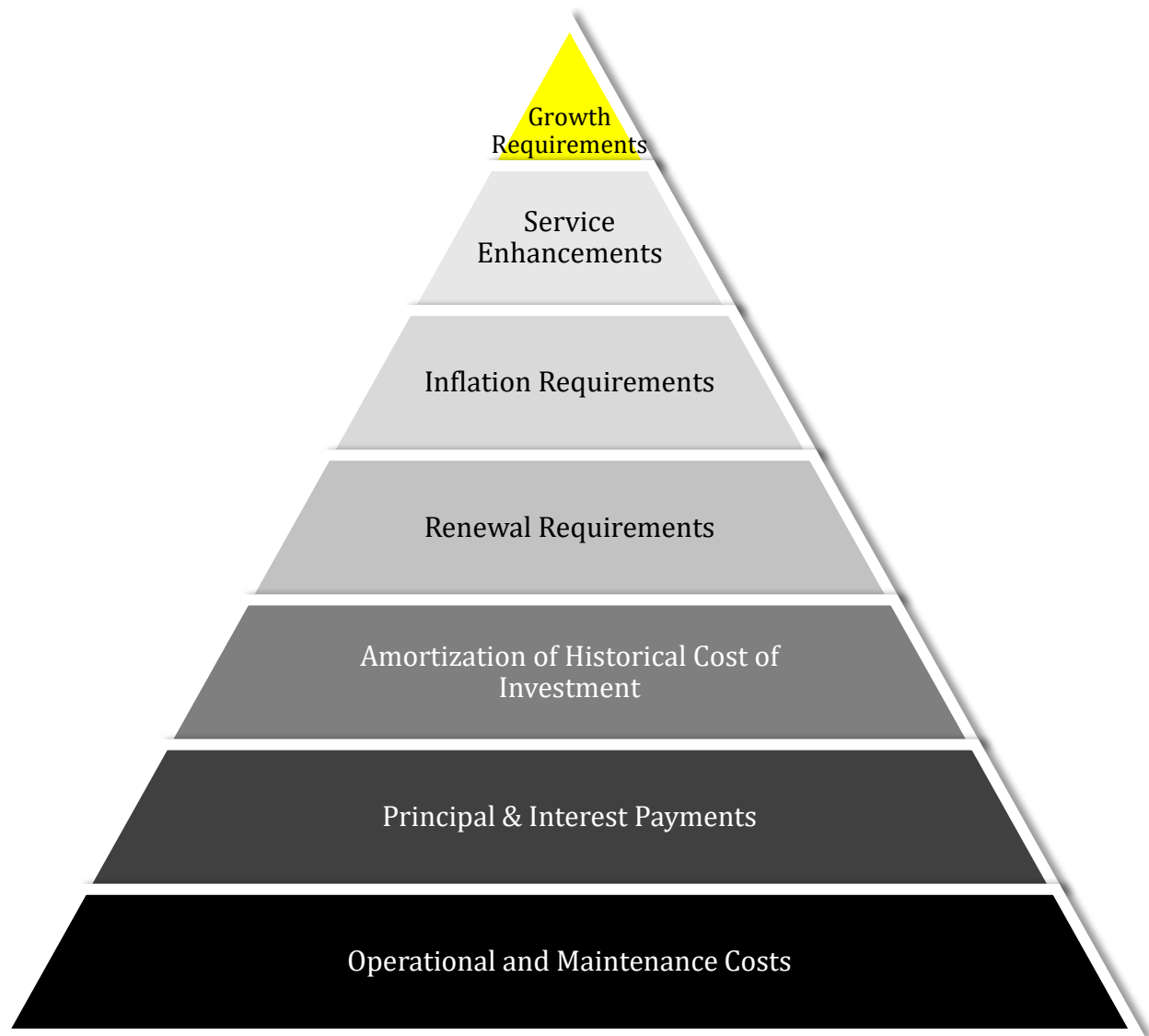


Figure 75 Cost Elements

Figure 75 depicts the various cost elements and resulting funding levels that should be incorporated into AMPs that are based on best practices. Municipalities meeting their operational and maintenance needs, and debt obligations are funding only their cash cost. Funding at this level is severely deficient in terms of lifecycle costs.

Meeting the annual amortization expense based on the historical cost of investment will ensure municipalities adhere to accounting rules implemented in 2009; however, funding is still deficient for long-term needs. As municipalities graduate to the next level and meet renewal requirements, funding at this level ensures that need and cost of full replacement is deferred. If municipalities meet inflation requirements, they're positioning themselves to meet replacement needs at existing levels of service. In the final level, municipalities that are funding for service enhancement and growth requirements are fiscally sustainable and cover future investment needs.

This report develops a financial plan by presenting several scenarios for consideration and culminating with final recommendations. It includes recommendations that avoid long-term funding deficits. As outlined below, the scenarios presented model different combinations of the following components:

- the financial requirements (as documented in the SOTI section of this report) for existing assets, existing service levels, requirements of contemplated changes in service levels (none identified for this plan), and requirements of anticipated growth (none identified for this plan)
- use of traditional sources of municipal funds including tax levies, user fees, reserves, debt, and development charges
- use of non-traditional sources of municipal funds, e.g., reallocated budgets
- use of senior government funds, such as the federal Gas Tax Fund, Ontario Community Infrastructure Fund (OCIF)

If the financial plan component of an AMP results in a funding shortfall, the province requires the inclusion of a specific plan as to how the impact of the shortfall will be managed. In determining the legitimacy of a funding shortfall, the province may evaluate a municipality's approach to the following:

- In order to reduce financial requirements, consideration has been given to revising service levels downward.
- All asset management and financial strategies have been considered. For example:
  - If a zero debt policy is in place, is it warranted? If not, the use of debt should be considered.
  - Do user fees reflect the cost of the applicable service? If not, increased user fees should be considered.

## 2. Financial Profile: Tax Funded Assets

### 2.1 Funding Objective

We have developed scenarios that would enable the municipality to achieve full funding within five to 20 years for the following assets: roads; bridges & culverts; storm sewers; buildings; machinery & equipment; fleet; and land improvement. For each scenario developed we have included strategies, where applicable, regarding the use of tax revenues, user fees, reserves and debt.

### 2.2 Current Funding Position

Table 36 and Table 37 outline, by asset class, the municipality's average annual asset investment requirements, current funding positions, and funding increases required to achieve full funding on assets funded by taxes.

Table 36 Infrastructure Requirements and Current Funding Available: Tax Funded Assets

Asset class	Average Annual Investment Required	Total Funding Available in 2016					Annual Deficit/Surplus
		Taxes	Gas Tax	OCIF	Taxes to Reserves	Total Funding Available	
Road Network	3,848,000	1,721,000	0	163,000	127,000	2,011,000	1,837,000
Bridges & Culverts	3,822,000	0	933,000	0	0	933,000	2,889,000
Storm	916,000	150,000	0	0	0	150,000	766,000
Buildings & Facilities	1,149,000	44,000	0	0	674,000	718,000	431,000
Machinery & Equipment	799,000	75,000	0	0	512,000	587,000	212,000
Land Improvements	170,000	35,000	0	0	0	35,000	135,000
Fleet	766,000	0	0	0	250,000	250,000	516,000
Total	11,470,000	2,025,000	933,000	163,000	1,563,000	4,684,000	6,786,000

## 2.3 Recommendations for Full Funding

The average annual investment requirement for tax funded categories is \$11,470,000. Annual revenue currently allocated to these assets for capital purposes is \$4,684,000, leaving an annual deficit of \$6,786,000. To put it another way, these infrastructure categories are currently funded at 41% of their long-term requirements. In 2016, the municipality has annual tax revenues of \$20,500,000. As illustrated in Table 37, without consideration of any other sources of revenue, full funding would require the following tax change over time:

Table 37 Tax Change Required for Full Funding

Asset class	Tax Change Required for Full Funding
Road Network	9.0%
Bridges & Culverts	14.1%
Storm	3.7%
Buildings & Facilities	2.1%
Machinery & Equipment	1.0%
Land Improvements	0.7%
Fleet	2.5%
Total	33.1%

The following changes in costs and/or revenues over the next number of years should also be considered in the financial strategy:

- Kenora’s formula based OCIF grant is scheduled to grow from \$163,000 in 2016 to \$825,000 in 2019.
- Kenora’s debt payments for these asset categories will be decreasing by \$85,000 over the next ten years. Although not shown in the table, debt payment decreases will be \$633,000 and \$633,000 over the next 15 and 20 years respectively.

Our recommendations include capturing the above changes and allocating them to the infrastructure deficit. Table 38 outlines this concept and presents a number of options.

Table 38 Effect of Changes in OCIF Funding and Reallocating Decreases in Debt Costs

	Without Capturing Changes				With Capturing Changes			
	5 Years	10 Years	15 Years	20 Years	5 Years	10 Years	15 Years	20 Years
Infrastructure Deficit	6,786,000	6,786,000	6,786,000	6,786,000	6,786,000	6,786,000	6,786,000	6,786,000
Change in OCIF Grant	NA	NA	NA	NA	-663,000	-663,000	-663,000	-663,000
Changes in Debt Costs	NA	NA	NA	NA	0	-85,000	-633,000	-633,000
Resulting Infrastructure Deficit	6,786,000	6,786,000	6,786,000	6,786,000	6,123,110	6,038,110	5,490,110	5,490,110
Resulting Tax Increase Required:								
Total Over Time	33.1%	33.1%	33.1%	33.1%	29.9%	29.5%	26.8%	26.8%
Annually	6.6%	3.3%	2.2%	1.7%	6.0%	3.0%	1.8%	1.3%

Considering all of the above information, we recommend the 20 year option that includes capturing the changes. This involves full funding being achieved over 20 years by:

- when realized, reallocating the debt cost reductions of \$633,000 to the infrastructure deficit as outlined above.
- increasing tax revenues by 1.3% each year for the next 20 years solely for the purpose of phasing in full funding to the tax funded asset classes covered in this AMP.
- allocating the current gas tax and OCIF revenue as outlined in Table 36.
- allocating the scheduled OCIF grant increases to the infrastructure deficit as they occur.
- reallocating appropriate revenue from categories in a surplus position to those in a deficit position
- increasing existing and future infrastructure budgets by the applicable inflation index on an annual basis in addition to the deficit phase-in.

**Notes:**

- As in the past, periodic senior government infrastructure funding will most likely be available during the phase-in period. By Provincial AMP rules, this periodic funding cannot be incorporated into an AMP unless there are firm commitments in place. We have included OCIF formula based funding, if applicable, since this funding is a multi-year commitment.
- We realize that raising tax revenues by the amounts recommended above for infrastructure purposes will be very difficult to do. However, considering a longer phase-in window may have even greater consequences in terms of infrastructure failure.

Although this option achieves full funding on an annual basis in 20 years and provides financial sustainability over the period modeled, the recommendations do require prioritizing capital projects to fit the resulting annual funding available. Current data shows a pent up investment demand of \$8,114,000 for paved roads, \$685,000 for bridges & culverts, \$10,077,000 for storm sewers, \$2,503,000 for machinery & equipment, \$941,000 for facilities, \$200,000 for land improvements and \$2,703,000 for vehicles. Prioritizing future projects will require the current data to be replaced by condition based data. Although our recommendations include no further use of debt, the results of the condition based analysis may require otherwise.



### 3. Financial Profile: Rate Funded Assets

#### 3.1 Funding Objective

We have developed scenarios that would enable the municipality to achieve full funding within five to 20 years for the following assets: water, waste water, and solid waste. For each scenario developed we have included strategies, where applicable, regarding the use of tax revenues, user fees, reserves and debt.

#### 3.2 Current Funding Position

Table 39 and Table 40 outline, by asset class, the municipality's average annual asset investment requirements, current funding positions, and funding increases required to achieve full funding on assets funded by rates.

Table 39 Summary of Infrastructure Requirements and Current Funding Available

Asset class	Average Annual Investment Required	Total Funding Available in 2016			Total Funding Available	Annual Deficit/Surplus
		Rates	To Operations	Other		
Waste water Services	1,577,000	3,887,000	-3,151,000	0	736,000	841,000
Water System	1,764,000	3,887,000	-2,650,000	0	1,237,000	527,000
Solid Waste	266,000	2,070,000	-1,610,000	0	460,000	-194,000
Total	3,607,000	9,844,000	-7,411,000	0	2,433,000	1,174,000

### 3.3 Recommendations for Full Funding

The average annual investment requirement for waste water services, water services, and solid waste is \$3,607,000. Annual revenue currently allocated to these assets for capital purposes is \$2,433,000 leaving an annual deficit of \$1,174,000. To put it another way, these infrastructure categories are currently funded at 68% of their long-term requirements.

In 2016, Kenora has annual waste water revenues of \$3,887,000, annual water revenues of \$3,887,000 and annual solid waste revenues of \$2,070,000. As illustrated in Table 40, without consideration of any other sources of revenue, full funding would require the following increases over time:

Table 40 Rate Change Required for Full Funding

Asset class	Rate Change Required for Full Funding
Waste water Services	21.6%
Water System	13.6%
Solid Waste	-9.4%

#### **Solid waste:**

Normally our recommendations include allocating any decrease in debt costs to the infrastructure deficit. As illustrated in Table 45, Kenora's debt payments for this asset category is \$0 so this option is not available.

At least three factors need to be quantified before implementing the above reductions:

- a) Kenora owns a landfill that is not reflected in the AMP which is anticipated to have future replacement costs of millions of dollars. This additional cost should be factored into the analysis before adjusting rates to ensure that this land fill asset is being adequately funded.
- b) Age based data shows a pent-up investment demand of \$237,000 for solid waste. Prioritizing future projects will require the age based data to be replaced by condition based data. The results of the condition based analysis may identify different pent up investment requirements.

As a result, rates should not be decreased until a detailed work plan is developed for these projects based on their actual condition. A corresponding financial plan can then be developed taking into account that there are \$0 of reserves available for solid waste (as noted in Table 46).

- c) 78% of solid waste revenues are currently allocated to operations as opposed to capital. Overall rates should not be decreased until longer term operational requirements are determined and taken into account. This will avoid the complications of lowering rates for capital purposes and then possibly increasing them for operational requirements.

Considering all of the above information, we recommend the following for solid waste:

- the required work for the points above be completed in order to determine what rate reductions can be achieved and over what period those reductions can be implemented.
- ensuring that any surpluses experienced are allocated to the appropriate reserves ensuring that any reductions implemented in the future take into account applicable inflation indexes for the intervening period of time.
- ensuring that, once rates are reduced to the level required for full funding, subsequent rates are adjusted by the applicable inflation index on an annual basis.

### **Waste water Services & Water System:**

As illustrated in Table 45, Kenora’s debt payments for water services will be decreasing by \$91,000 over the next 5 years and the same amount over the next 10 years. Although not shown in the table, debt payment decreases will also be \$91,000 over the next 15 years. Kenora has no existing debt for waste water sewer services. Our recommendations include capturing those decreases in cost and allocating them to the applicable infrastructure deficit.

Table 41 Without Change in Debt Costs

	Waste water Services			Water System		
	5 Years	10 Years	15 Years	5 Years	10 Years	15 Years
Infrastructure Deficit	841,000	841,000	841,000	527,000	527,000	527,000
Change in Debt Costs	N/A	N/A	N/A	N/A	N/A	N/A
Resulting Infrastructure Deficit/Surplus	841,000	841,000	841,000	527,000	527,000	527,000
Resulting Rate Increase Required:						
Total Over Time	21.6%	21.6%	21.6%	13.6%	13.6%	13.6%
Annually	4.3%	2.2%	1.4%	2.7%	1.4%	0.9%

Table 42 With Change in Debt Costs

	Waste water Services			Water System		
	5 Years	10 Years	15 Years	5 Years	10 Years	15 Years
Infrastructure Deficit	841,000	841,000	841,000	527,000	527,000	527,000
Change in Debt Costs	0	0	0	-91,000	-91,000	-91,000
Resulting Infrastructure Deficit/Surplus	841,000	841,000	841,000	436,000	436,000	436,000
Resulting Rate Increase Required:						
Total Over Time	21.6%	21.6%	21.6%	11.2%	11.2%	11.2%
Annually	4.3%	2.2%	1.4%	2.2%	1.1%	0.7%

Considering all of the above information, for waste water and water services we recommend the 5-year option in the table above that includes the reallocations. This involves full funding being achieved over 5 years by:

- when realized, reallocating the debt cost reductions of \$91,000 for water services to the applicable infrastructure deficit.
- increasing rate revenues by 4.3% for waste water services and 2.2% for water services each year for the next 5 years solely for the purpose of phasing in full funding to the asset categories covered in this section of the AMP.
- increasing existing and future infrastructure budgets by the applicable inflation index on an annual basis in addition to the deficit phase-in.

**Notes:**

- As in the past, periodic senior government infrastructure funding will most likely be available during the phase-in period. By Provincial AMP rules, this periodic funding cannot be incorporated into an AMP unless there are firm commitments in place. We have included OCIF formula based funding, if applicable, since this funding is a multi-year commitment.
- We realize that raising rate revenues by the amounts recommended above for infrastructure purposes will be very difficult to do. However, considering a longer phase-in window may have even greater consequences in terms of infrastructure failure.
- Any increase in rates required for operations would be in addition to the above recommendations.

Although this option achieves full funding on an annual basis in 5 years and provides financial sustainability over the period modeled, the recommendations do require prioritizing capital projects to fit the resulting annual funding available. Current data shows a pent-up investment demand of \$11,429,000 for waste water services and \$20,145,000 for water services. Prioritizing future projects will require the current data to be replaced by condition based data. Although our recommendations include no further use of debt, the results of the condition based analysis may require otherwise.

Kenora recently completed an overall financial plan for water and waste water services which covered operating, capital and inflationary requirements until the year 2021. Its goal was to phase-in the required revenue to achieve full funding for the requirements of a 6 year moving window of time and resulted in recommendations for 8% increases in the years 2017 through 2018 and 5.5% increases in 2019 through 2021.

Comparing PSD's AMP financial analysis to the existing overall financial plan should be done with caution. PSD's analysis is strictly on capital requirements, is based on a 50+ year horizon and recommendations on inflationary requirements are in addition to the stated phase-in requirements.

Having said the above, continuing the implementation of the recommendations of the overall financial plan will meet the requirements of both plans.

## 4. Use of Debt

For reference purposes, Table 43 outlines the premium paid on a project if financed by debt. For example, a \$1M project financed at 3.0%<sup>3</sup> over 15 years would result in a 26% premium or \$260,000 of increased costs due to interest payments. For simplicity, the table does not take into account the time value of money or the effect of inflation on delayed projects.

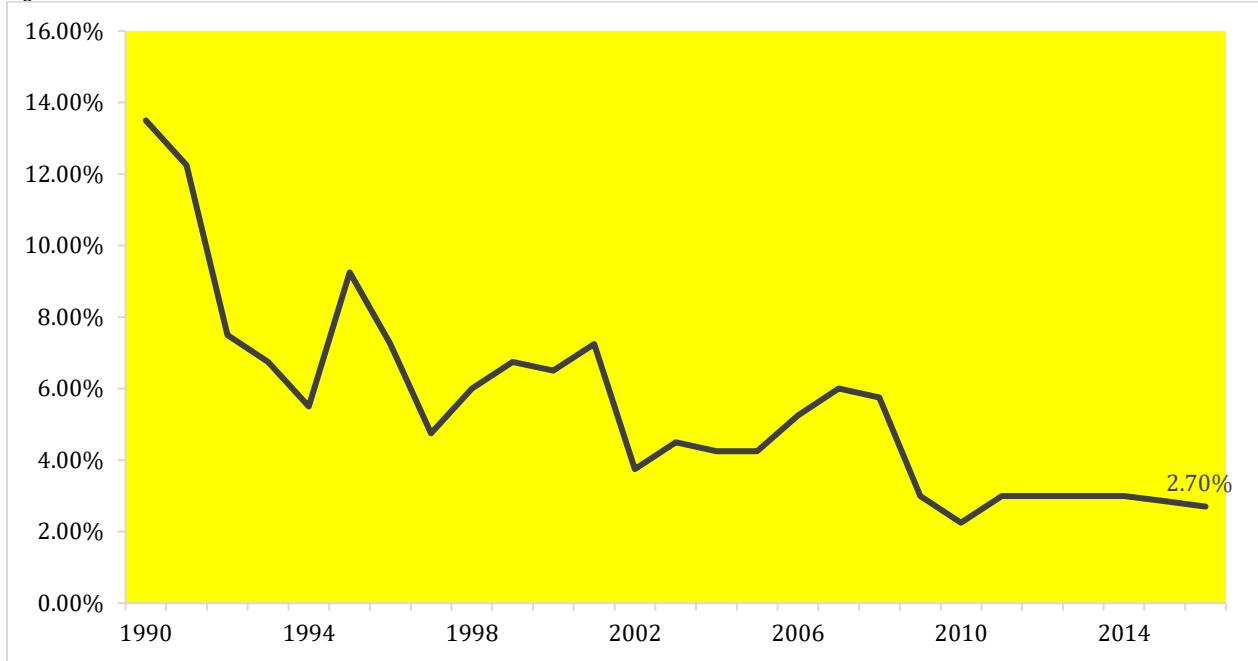
Table 43 Total Interest Paid as a Percentage of Project Costs

Interest Rate	Number of Years Financed					
	5	10	15	20	25	30
7.0%	22%	42%	65%	89%	115%	142%
6.5%	20%	39%	60%	82%	105%	130%
6.0%	19%	36%	54%	74%	96%	118%
5.5%	17%	33%	49%	67%	86%	106%
5.0%	15%	30%	45%	60%	77%	95%
4.5%	14%	26%	40%	54%	69%	84%
4.0%	12%	23%	35%	47%	60%	73%
3.5%	11%	20%	30%	41%	52%	63%
3.0%	9%	17%	26%	34%	44%	53%
2.5%	8%	14%	21%	28%	36%	43%
2.0%	6%	11%	17%	22%	28%	34%
1.5%	5%	8%	12%	16%	21%	25%
1.0%	3%	6%	8%	11%	14%	16%
0.5%	2%	3%	4%	5%	7%	8%
0.0%	0%	0%	0%	0%	0%	0%

<sup>3</sup> Current municipal Infrastructure Ontario rates for 15 year money is 3.2%.

It should be noted that current interest rates are near all-time lows. Sustainable funding models that include debt need to incorporate the risk of rising interest rates. The following graph shows where historical lending rates have been:

Figure 76 Historical Prime Business Interest Rates



As illustrated in Table 43, a change in 15 year rates from 3% to 6% would change the premium from 26% to 54%. Such a change would have a significant impact on a financial plan.

Table 44 and Table 45 outline how Kenora has historically used debt for investing in the asset classes as listed. There is currently \$6,859,000 of debt outstanding for the assets covered by this AMP with corresponding principal and interest payments of \$724,000, well within its provincially prescribed maximum of \$10,702,000.

Table 44 Overview of Use of Debt

Asset class	Debt at December 31 <sup>st</sup> , 2015	Use of Debt in Last Five Years				
		2011	2012	2013	2014	2015
Road Network	1,826,000	2,344,000	0	0	0	0
Bridges & Culverts	0	0	0	0	0	0
Storm Sewer Network	0	0	0	0	0	0
Buildings & Facilities	4,616,000	5,559,000	746,000	0	0	0
Machinery & Equipment	0	0	0	0	0	0
Land Improvements	0	0	0	0	0	0
Fleet	0	0	0	0	0	0
<b>Total Tax Funded</b>	<b>6,442,000</b>	<b>7,903,000</b>	<b>746,000</b>	<b>0</b>	<b>0</b>	<b>0</b>
Waste water Services	0	0	0	0	0	0
Water System	417,000	800,000	0	0	0	0
Solid Waste	0	0	0	0	0	0
<b>Total Rate Funded</b>	<b>417,000</b>	<b>800,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Table 45 Overview of Debt Costs

Asset class	Principal & Interest Payments in Next Ten Years						
	2016	2017	2018	2019	2020	2021	2026
Road Network	153,000	153,000	153,000	153,000	153,000	153,000	153,000
Bridges & Culverts	0	0	0	0	0	0	0
Storm	0	0	0	0	0	0	0
Buildings & Facilities	480,000	480,000	480,000	480,000	480,000	480,000	395,000
Machinery & Equipment	0	0	0	0	0	0	0
Land Improvements	0	0	0	0	0	0	0
Fleet	0	0	0	0	0	0	0
<b>Total Tax Funded</b>	<b>633,000</b>	<b>633,000</b>	<b>633,000</b>	<b>633,000</b>	<b>633,000</b>	<b>633,000</b>	<b>548,000</b>
Waste water Services	0	0	0	0	0	0	0
Water System	91,000	91,000	91,000	91,000	91,000	0	0
Solid Waste	0	0	0	0	0	0	0
<b>Total Rate Funded</b>	<b>91,000</b>	<b>91,000</b>	<b>91,000</b>	<b>91,000</b>	<b>91,000</b>	<b>0</b>	<b>0</b>

The revenue options outlined in this plan allow Kenora to fully fund its long-term infrastructure requirements without further use of debt. However, project prioritization based on replacing age-based data with observed data for several tax funded and rate funded classes may require otherwise.



## 5. Use of Reserves

### 5.1 Available Reserves

Reserves play a critical role in long-term financial planning. The benefits of having reserves available for infrastructure planning include: the ability to stabilize tax rates when dealing with variable and sometimes uncontrollable factors; financing one-time or short-term investments; accumulating the funding for significant future infrastructure investments; managing the use of debt; and, normalizing infrastructure funding requirements. By infrastructure class, Table 46 outlines the details of the reserves currently available to Kenora.

Table 46 Summary of Reserves Available

Asset class	Balance at December 31 <sup>st</sup> , 2015
Road Network	286,000
Bridges & Culverts	1,939,000
Storm	1,016,000
Machinery & Equipment	423,000
Facilities	3,163,000
Land Improvements	3,663,000
Fleet	887,000
<b>Total Tax Funded</b>	<b>11,377,000</b>
Water System	1,227,000
Waste water Services	1,016,000
Solid Waste	1,700,000
<b>Total Rate Funded</b>	<b>3,943,000</b>

There is considerable debate in the municipal sector as to the appropriate level of reserves that a municipality should have on hand. There is no clear guideline that has gained wide acceptance. Factors that municipalities should take into account when determining their capital reserve requirements include: breadth of services provided, age and condition of infrastructure, use and level of debt, economic conditions and outlook, and internal reserve and debt policies.

The reserves in Table 46 are available for use by applicable asset classes during the phase-in period to full funding. This, coupled with Kenora's judicious use of debt in the past, allows the scenarios to assume that, if required, available reserves and debt capacity can be used for high priority and emergency infrastructure investments in the short to medium-term.

### 5.2 Recommendation

As Kenora updates its AMP, we recommend that future planning should include determining what its long-term reserve balance requirements are and a plan to achieve such balances.

## X. 2016 Infrastructure Report Card

The following infrastructure report card illustrates the municipality's performance on the two key factors: Asset Health and Financial Capacity. Appendix 1 provides the full grading scale and conversion chart, as well as detailed descriptions, for each grading level.

Table 47 2016 Infrastructure Report Card

Asset class	Asset Health Grade	Funding Percentage	Financial Capacity Grade	Average Asset class Grade	Comments
Roads	B	52%	D	C	Based on 2016 replacement cost, and a blend of assessment and age-based data, while nearly 60% of assets, are in good to very good condition, 26%, with a valuation of \$134 million, are in poor to very poor condition.  The municipality is funding 41% of the long-term requirements for its tax funded assets and 68% for its rate funded assets.
Bridges & Culverts	C	24%	F	F	
Water System	D	70%	C	D	
Waste water Services	D	47%	D	D	
Storm	D	16%	F	F	
Buildings & Facilities	B	62%	C	C	
Machinery & Equipment	D	73%	C	D	
Land Improvements	F	21%	F	F	
Fleet	D	33%	F	F	
Solid Waste	C	173%	A	B	
Average Asset Health Grade			C		
Average Financial Capacity Grade			F		
Overall Grade for the Municipality			D		

# XI. Appendix: Grading and Conversion Scales

Table 48 Asset Health Scale

Letter Grade	Rating	Description
A	Excellent	Asset is new or recently rehabilitated
B	Good	Asset is no longer new, but is fulfilling its function. Preventative maintenance is beneficial at this stage.
C	Fair	Deterioration is evident but asset continues to full its function. Preventative maintenance is beneficial at this stage.
D	Poor	Significant deterioration is evident and service is at risk.
F	Very Poor	Asset is beyond expected life and has deteriorated to the point that it may no longer be fit to fulfill its function.

Table 49 Financial Capacity Scale

Letter Grade	Rating	Funding percent	Timing Requirements	Description
A	Excellent	90-100 percent	<input checked="" type="checkbox"/> Short Term <input checked="" type="checkbox"/> Medium Term <input checked="" type="checkbox"/> Long Term	The municipality is fully prepared for its short-, medium- and long-term replacement needs based on existing infrastructure portfolio.
B	Good	70-89 percent	<input checked="" type="checkbox"/> Short Term <input checked="" type="checkbox"/> Medium Term <input checked="" type="checkbox"/> Long Term	The municipality is well prepared to fund its short-term and medium-term replacement needs but requires additional funding strategies in the long-term to begin to increase its reserves.
C	Fair	60-69 percent	<input checked="" type="checkbox"/> Short Term <input checked="" type="checkbox"/> Medium Term <input checked="" type="checkbox"/> Long Term	The municipality is underpreparing to fund its medium- to long-term infrastructure needs. The replacement of assets in the medium-term will likely be deferred to future years.
D	Poor	40-59 percent	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> Short Term <input checked="" type="checkbox"/> Medium Term <input checked="" type="checkbox"/> Long Term	The municipality is not well prepared to fund its replacement needs in the short-, medium- or long-term. Asset replacements will be deferred and levels of service may be reduced.
F	Very Poor	0-39 percent	<input checked="" type="checkbox"/> Short Term <input checked="" type="checkbox"/> Medium Term <input checked="" type="checkbox"/> Long Term	The municipality is significantly underfunding its short-term, medium-term, and long-term infrastructure requirements based on existing funds allocation. Asset replacements will be deferred indefinitely. The municipality may have to divest some of its assets (e.g., bridge closures, arena closures) and levels of service will be reduced significantly.



# DEPUTATION REQUEST FORM

To Appear before Kenora City Council or Committee of the Whole of Council

### How to Make a Deputation:

1. Determine date and time of Council or Committee meeting you wish to attend.
2. Submit this completed and signed form to the City Clerk (deliver/mail/fax or e-mail)
  - at least seven (7) days in advance of any Committee meeting
  - before 10:00 a.m. on date of a Council meeting;
3. State your name prior to speaking, and
4. Provide a copy of materials used in your presentation, if any, to the City Clerk for the official record (either in advance or at the time of the deputation).

### City Clerk's Contact Information:

By Mail: 1 Main Street South, Kenora, ON P9N 3X2

By fax: 807-467-2009

E-mail: [hkasprick@kenora.ca](mailto:hkasprick@kenora.ca)

### Name:

(person making deputation)

### Organization You Represent:

(if applicable)

IRENE McCHAIG / SUE STRAIGHT / LAKE OF WOODS ARTS COMMUNITY  
(please print)

Mailing Address: HARBOUR POSTAL OUTLET Telephone Number: 807 467 2653  
PO BOX 12002, KENORA P9N4T1

Email Address: irene@inglono Postal Code: P9N4T1  
lowacdirector@semail.com

Other Persons Presenting with You on this topic?  No  Yes  
(on behalf of same organization)

If yes, Other Names: SUE STRAIGHT

Topic – include brief statement of issue or purpose for Deputation:

Please see Protocol Notes on Page 2

LOWAC is planning two major events for summer 2017: Artsfest 2017 and our "DIP, DIP & SWING" Exhibit. We want to inform and ask support.

I wish to appear before  Council  Committee of the Whole  
 Other

On the Meeting date: MARCH 14, 2017

### Please Note:

Most meetings are video-taped and reported on by both the local newspaper and radio stations. Subsequently your deputation will form part of the public record in the minutes which are circulated widely and posted on the City's portal on the internet. By appearing before Council/Committee and signing this form, you hereby understand that information pertaining to you and your deputation will be publicized.

Do you have material to leave with Council following your deputation?  Yes  No  
(If yes, please give to Clerk upon arrival to meeting)

Signature Required: *Irene McChaig*  
(Must be signed by applicant to go forward)

...2



## Deputation Protocol

The purpose of the deputation process is to allow individuals or groups an opportunity to make their views known to Council. Council values and welcomes input, comments, and constructive suggestions. Since Council generally has to consider a large number of issues and concerns at any given time, the following Protocol is observed and we thank you for your interest in making a deputation and abiding by the rules:-

### 2.9 Cell phones/Blackberries/Smart Phones

All phones are required to be turned to vibrate during all Council and Committee meetings.

### 9.7 No Deputant shall:

1. Speak without first being recognized by the Head of Council or Chair
2. Speak disrespectfully of any person
3. Use offensive words or gestures, or make abusive comments,
4. Speak on any subject other than the subject stated on their Deputation Request Form
5. Disobey the Rules of Procedure or a decision of the Council or Committee

### 9.9 Expulsion

The Head of Council or Chair may cause to expel and exclude any member of the public who creates any disturbance or acts improperly during a meeting of Council or Committee. If necessary, the Clerk may be called upon to seek the appropriate assistance from police officers for this purpose.

### 9.14 Appearance - previous - limitation - new information

Any person appearing before Council who has previously appeared before Council on the same subject matter, shall be limited to providing only new information in their second and subsequent appearances.

✓ **Check below:**

I have never spoken on this issue before.

I have spoken on this issue before and the new information I wish to present is as follows:-

---

### {Committee of the Whole/Property & Planning Meeting}

Committee of the Whole Meetings combined with the Property & Planning Committee immediately following, commence at 9:00 a.m., typically on the 2nd Tuesday of each month, unless otherwise advertised.

Committee Deputations are given approx. 15 minutes each at the beginning of the meeting, subject to the Chair's discretion.

Members of Committee may engage in dialogue with the person making a deputation as a matter of receiving and/or clarifying information.

Please present any material, letters or other relevant information concerning your deputation to Committee either at the time of your deputation or in advance of the meeting.

When a number of people are to appear representing one viewpoint or interest group, it is expected the group speak through a spokesperson, or submit written submissions.

### {Council Meetings}

Regular Council meetings commence at 12:00 p.m., typically on the 3rd Tuesday of each month, unless otherwise advertised.

Deputations before Council are given approx. 5 minutes each at the beginning of the meeting, subject to the Mayor's discretion.

Council will not debate an issue, but will take the information under advisement.

Please present any material, letters or other relevant information concerning your deputation to Council either at the time of your deputation or in advance of the meeting.

When a number of people are to appear representing one viewpoint or interest group, it is expected the group speak through a spokesperson, or submit written submissions.



March 6, 2017

## City Council Committee Report

**TO: Mayor and Council**

**FR: Charlotte Edie, Treasurer**

**RE: Investment Report including Kenora Citizens' Prosperity Trust Fund –  
Quarter 4**

### **Recommendation:**

That Council of the City of Kenora hereby accepts the 2016 fourth quarter investment report that includes details of the Kenora Citizens' Prosperity Trust Fund and other City of Kenora investments.

### **Background Information:**

Kenora Citizen's Prosperity Trust Fund (KCPTF):

In 2008, City Council approved the establishment of the Kenora Citizens' Prosperity Trust Fund. The proceeds of disposition from the sale of the KMTS entities of \$40,896,446 were transferred to this Fund.

In order to offset lost net revenues as a result of the sale of the KMTS entities, the City requires an annual return of \$1,100,000 in income from the Trust, in addition to the elimination of long term debt payments which occurred in 2007. This transfer has not been deducted from the investment values below. Any erosion of the balance of the Trust will result in an additional burden on City taxpayers.

The first KCPTF portfolio is with the ONE Public Sector Group of Funds and accounts for almost one quarter of the Trust Fund. The market value of this investment at December 31, 2016 is \$14,739,918. (Net of a contribution to this investment of \$2,824,508, this is a decrease of \$16,156 in market value from September 30, 2016.) This portfolio is held in bond, universal corporate bond and equity funds that are all monitored to ensure that they remain within the Ontario Provincial legislation for municipal investments. The year to date actual return on these ONE fund investments for 2016 is 6.19%. This rate reflects the total return including market impact. The return on book value for year to date 2016 is 1.48%. Currently the universal bond fund is generating 1.6% and the equity fund is generating 13.36% on a cumulative basis (including market impact).

The second and largest KCPTF portfolio is managed by Manulife Asset Management with RBC Dexia Investor Services as custodians. The City receives quarterly reports and information. The December 31, 2016 report is attached. The market value of these investments is \$25,227,438 (\$142,112 lower than the value at the end of September 2016). Securities held in this portfolio are largely bank and federal and provincial government issues. The year to date return on these funds is 1.02%. The rate of return since inception is 2.85%. These returns also take the market impact into account.

In addition, the KCPTF holds \$6,341,053 in debt from the City of Kenora. The rate of return on this debt is 3%. This will increase with the issuance of new debt at the end of 2016.

For 2016 the estimated income for the KCPTF is \$842,232.83 (pending the receipt of the post-employment actuarial reports with respect to the retired telephone employee). This falls short of the \$1,100,000 target by approximately \$258,000. The original value of the fund is \$40,896,445.87. At the end of 2016, the value of the Fund is estimated at \$41,565,817.90 which represents an accumulation of \$669,372 (after deducting the 2016 \$1,100,000 contribution) since the Fund was created. What this means is that there is a sufficient balance in the Fund to meet the \$1,100,000 contribution in the budget however, the Fund did not generate this much in income for 2016.

#### Other Investments:

The City of Kenora maintains investment portfolios separate from the Kenora Citizen's Prosperity Trust Fund. These investments are entirely held in the ONE Public Sector Group of Funds and the market value at December 31, 2016 is \$12,526,322. (This is a decrease of \$16,358 in market value from September 30, 2016.) This portfolio is held in bond, universal corporate bond and equity funds that are all monitored to ensure that they remain within the Ontario Provincial legislation for municipal investments. The year to date return for this portfolio is 5.56%. The year to date return on book value is 1.58%.

#### **Budget:**

There is no expected budget impact as a result of this report.

#### **Risk analysis:**

The risk associated with this report is moderate. The risk impact is that the Funds do not earn the required 3% on investments. The shortfall of investment income is within the moderate range.

#### **Communication Plan/Notice By-law Requirements:**

For information only

#### **Strategic Plan or other Guiding Document:**

Report is required per policy CS 4-2.





March 7, 2017

## City Council Committee Report

**To: Mayor and Council**

**Fr: Adam Smith**

**Re: 2016 Strategic Plan Progress Report**

### **Recommendation:**

That Council hereby accepts the 2016 Strategic Plan Progress Report to highlight the previous year's activities by City departments and agencies in accordance with the City of Kenora's Strategic Plan – Our Vision is 20/20.

### **Background:**

As part of the implementation of the City's Strategic Plan – Kenora, Our Vision is 20/20, the CAO, together with senior staff are responsible for reporting progress back to City Council following the end of each year throughout 2015-2020.

The attached document, reports on key achievements and plans moving forward as identified by City Staff in delivering on the goals and actions under the Strategic Plan. As a living document, it is important to track annual progress in order to adjust priorities and targets. The comments provided reflect deliverables that were established in developing the Strategic Plan as well as the new priorities added by Council following review in the summer of 2016. Moreover, as the City has commenced with implementation of the organization review a number of items have been changed to reflect work being completed as part of this process.

Given the overlap between the recommendations in the organizational review and Strategic Plan, staff have included an organizational review update as an appendix and refer to it when necessary.

This report not only serves as an important communication tool, but also as a means to determine resource allocation and next steps for 2017.

### **Budget / Financial Implications:**

The main impact is the staff time required to collect the information and subsequently condense into a single report on an annual basis.

### **Communication Plan/Notice By-law Requirements:**

The 2016 Strategic Plan Progress Report will be used to communicate and track on-going activity related to the Strategic Plan on an annual basis. It will be provided to both City Council and to the Public via press release.

**Risk Analysis:**

As per the City's ERM Policy, this recommendation has been assessed as a minor risk to public trust and confidence and should be pursued. The 2016 Strategic Plan Progress Report is an example of the City's commitment to being transparent and accountable to the public.

**Strategic Plan or other Guiding Document:**

This report is guided by the implementation strategy articulated in the City of Kenora's Strategic Plan – Our Vision is 20/20.

# 2016 Progress Report

## City of Kenora Strategic Plan: 2015 to 2020



***"Our Vision is 20/20 – Getting There Together"***

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# Introduction

As part of the implementation of the City's Strategic Plan – Kenora, Our Vision is 20/20, the CAO, together with senior staff are responsible for reporting progress back to City Council following the end of each year throughout 2015-2020.

Last year, the City of Kenora released its first progress report in implementing the actions within the Strategic Plan. Most priorities that were of 'immediate' concern were addressed in 2015, however, the vast majority of corporate actions are not intended to be short-term deliverables but rather, items that are anticipated to be completed by the conclusion of the Plan in 2020.

Similar to the previous report, the 2016 Progress Report tracks annual progress in order to effectively evaluate priorities and targets. The comments provided reflect deliverables by both the departments and arms-length agencies governed by the City of Kenora. They include information on the various projects completed in 2016 as well as discussions on new developments that emerged last year.

In July 2016, Council reviewed the Strategic Plan and approved a number of different changes to the goals and action items. These changes are reflected in this report.

## **Our Vision**

Kenora is a City of choice, renowned as a sustainable, lifestyle community supported by a Municipality committed to excellence

## **Our Mission**

To deliver quality, cost-effective Municipal services

# Guiding Principles

## **GP-1 The City will provide clear and decisive leadership on all matters of economic growth in Kenora and the surrounding district.**

In terms of economic development, 2016 represented a year of transition with a new Economic Development Officer (EDO) being hired in June 2016. Leadership has been exemplified through the development of the Lake of the Woods Development Commission (LOWDC) Strategic Plan. This will establish a framework to drive economic growth for 2017-2019. The LOWDC Strategic Plan has been developed in alignment with the City of Kenora's 2015-2020 Strategic Plan to meet goals and corporate actions set by the City.

## **GP-2 The City will forge strong, dynamic working relationships with the Kenora business community.**

City Council and staff continued to strengthen partnerships with Lake of the Woods Business Incentive Corporation (LOWBIC), Kenora and District Chamber of Commerce (KDCC), Harbourtown BIZ and the Kenora Hospitality Alliance (KHA). In addition to on-going work with individual businesses to provide assistance and information, the City initiated a Manufacturing Sector Profile in 2016. This will complement existing sector profiles and attract external investment into the community.

A new partnership was also formed between the LOWDC, Northwest Business Centre (NWBC), Ontario Culinary Tourism Alliance, Cloverbelt Local Food Co-operative and Tourism Northern Ontario to deliver the Northwestern Ontario Food Forum. Held in December 2016, the event saw participation from over 50 regional food producers, manufacturers, farmers, entrepreneurs, chefs and restaurant owners gathered to learn what food tourism is and what opportunities it brings to a local economy.

The NWBC continued its delivery of the New Business Welcome project with Kenora business partners (LOWDC, NWBC, KDCC, Harbourtown BIZ, LOWBIC). On October 20, the NWBC partnered with 15 business organizations (Business Development Bank of Canada, KDCC, BDO, BIZ, etc.) to host a Small Business Week celebration event and over 70 guests attended. The NWBC also hosted a WordPress Workshop in partnership with the Northwestern Ontario Innovation Centre that guided small business owners through setting up a website.

**GP-3 The City will foster and support entrepreneurial business development for start-ups and young entrepreneurs.**

The NWBC continued to operate and deliver a program called Starter Company. Since July 2014, the program has received 80 applications and 34 of those are from youth in Kenora. Seven of the 22 grants awarded have been to Kenora youth. In 2016, the Summer Company program had one student from Kenora participate, purchase a Kenora business licence and operate her business over the summer.

**GP-4 The City will promote Kenora to external investment audiences in specific sectors that provide the most promise for job growth and economic diversification.**

The LOWDC and City work with external investors on key sectors including health care, tourism, manufacturing, housing, value added forestry, and mining. The Manufacturing Sector Profile has been initiated and is in progress with completion scheduled for early 2017. The sector profiles continue to be a valuable source of information circulated to developers and investors.

An overhaul of the 'Business' component of the City of Kenora website has been initiated and will go live in early 2017. This redevelopment will allow for increased promotion of the key sector profiles.

# Develop Our Economy

**1-1 The City will work with the LOWDC to ensure that the LOWDC is actively working towards Council priorities and the related action items as per the City's strategic plan. This may include regular meetings between the LOWDC and Council.**

The LOWDC has presented a quarterly update to Council and has also participated in in-camera meetings, where appropriate, to share information. The 2017-2019 LOWDC Strategic Plan has been developed in direct alignment with the City of Kenora 2015-2020 Strategic Plan to ensure that City goals and corporate actions are achieved.

**1-2 The City will ensure Kenora is recognized as being 'Open for Business' and facilitating development through streamlining application and approval processes, effectively eliminating any 'red tape'.**

No formal redevelopment or campaign was initiated by LOWDC during 2016. This has been identified in the draft 2017 City budget as a priority project.

**1-3 The City will lay the foundations for investment readiness within the mining sector, taking full advantage of anticipated development activity in the region, including the Ring-of-Fire. This work will include building partnerships with industry, First Nations, provincial & federal governments.**

While the Mining Sector Profile was completed in 2015, spin-off opportunities from mining have been considered as part of the Manufacturing Sector Profile. As part of designing the new website, it was



decided that mining should be included as a key sector on the new 'Business' webpage. The City has also remained in communication with Avalon on a potential facility in Kenora.

**1-4 The City will continue to support investment readiness within the forestry sector, taking advantage of new housing construction growth and improved conditions for wood fibre building materials. This work will include building partnerships with industry, First Nations, provincial & federal governments.**

The reopening of Kenora Forest Products in 2016 and \$30 million capital expansion at the facility represents a major success for Kenora's forestry sector. Staff intend on highlighting additional opportunities in the sector through the Manufacturing Sector Profile and forestry is earmarked as a key sector on the Business webpage.

**1-5 The City will document existing City land, identify new opportunities and future growth areas, and consider putting the appropriate zoning in place for potential future development. This may include land assembly for the purpose of developing business parks intended to clear the way for new industrial investment.**

The City continued to work on identifying surplus land in 2016. The City also began work on a Land Disposition Policy.

**1-6 The City will clearly communicate the importance of non-residential assessment and its impact on the tax base.**

Similar to the previous year, there has been no active communications / education program put in place at this time. However, the recent decision by MPAC regarding the assessment of the Canadian Tire property has prompted discussions surrounding future engagement with MPAC on the effect of such reassessment on municipal revenues.

**1-7 The City will lobby senior government for additional supports for local industry and business in relation to ongoing workforce development**

Council identified this priority as an issue to be addressed with the Minister of Northern Development and Mines at the 2017 Rural Ontario Municipal Association (ROMA) Conference. Staff completed this package in December 2016 after consulting with the Northwest Training Adjustment Board (NTAB) on skill and education gaps in the region.

**1-8 The City will promote Kenora as a 365-day lifestyle destination.**

In December 2016, the successful casino proponent by OLG was announced allowing for discussion on site selection to advance and engagement with the private sector on future development.

Winter Bites experienced another successful year with 10 restaurants participating and some serving as many as 400 'winter bites' alone. Moreover, Tourism Kenora developed a winter video featuring ice fishing, skijoring, skiing, tubing etc. to help promote Kenora as a winter destination.

**1-9 The City will promote and leverage its recreation and leisure amenities as a means to support local economic activity, tourism and to strengthen community ties with our regional neighbours**

The City, KHA and Mount Evergreen have created a partnership to promote the ski hill including the new tubing section, into Manitoba markets. Work continues with Sioux Narrows/Nestor Falls, KHA, Tourism Northern Ontario and Harbourtown BIZ on advertising campaigns such as "Take a Hike" which has been very successful at drawing tourists in the fall season.

To bring in teams and vendors from other communities, the Kenora Recreation Centre has hosted a number of events in 2016 including:

- Regional Right Test Day
- Peewee/Atom and Bantam Tournaments
- North American First Nations Tournament
- Ham & Egger

In addition, local businesses have sponsored free swim and skates at the facility (Royal LePage, Kenora Anishinaabe-kweg Aboriginal Head Start Program and Triple P.L.A.Y). The Recreation Division also partnered up with the Northwestern Health Unit to hold a Fitness for Breath program. Lastly, by partnering with Fifth Hammer Marketing Group, the Division rolled out the Kenora Leisure Guide. The first issue for Fall/Winter was printed and delivered to all households in August 2016.

### **1-10 The City will support Kenora's "North America's Premier Boating Destination" Brand implementation strategy**

Tourism Kenora in partnership with Sioux Narrows/Nestor Falls completed the promotional video, Lake of the Woods – History by Water – Part 1 in spring of 2016. The second installment of Lake of the Woods – History by Water is in progress and expected to be released in 2017. This video showcases the brand and expands the promotional material available to the City.

Through a partnership with Path of the Paddle, the City has erected signage at the Discovery Center, Anicinabe Park and Keewatin Boat Lift. These signs will support the water trail network in and around the community. All of the activities were in addition to the on-going work of Tourism Kenora in the recruiting of boating related events (boat shows, fishing tournaments, etc.) and supporting private investment to enhance and expand boating infrastructure.

**1-11 The City will support, promote and expand the tourism industry. In recognition of the growing importance of tourism within the economy, Kenora will pursue the recruitment and facilitation of a new event(s) which celebrates Kenora as a thriving and dynamic year-round destination.**

New events included the Triple B BBQ festival on May long weekend, Sunset Country Rendezvous (British car show) and the ESOX Muskie Challenge in the fall. Both the Triple B BBQ festival and ESOX Muskie Challenge are expected to become annual events. During 2016, City of Kenora staff also worked on a bid to host Hockey Day in Canada, which was ultimately successful.



# Strengthen Our Foundations

**2-1 The City will ensure that our municipal infrastructure assets are managed and maintained using available resources through a robust asset management plan and process, with the intent of moving towards all City infrastructure being in a good state of repair to ensure certainty, security and long-term stability of our systems**

A multi-departmental team worked with Public Sector Digest (PSD) to expand and update the City's Asset Management Plan. The draft plan is scheduled for presentation to Council for approval in early 2017. The Operations and Infrastructure (O&I) Department has developed a plan to commence a sanitary sewer CCTV program. Summer students have been used to perform sidewalk, sign, culvert and road condition inspections.

**2-2 The City will keep in the forefront that there is a significant infrastructure deficit, and current and future Councils will need to continue to work towards allocating sufficient resources to be able to adequately address this issue.**

In 2016, the City decided to roll-out GPS and cameras among fleet vehicles that will allow infield conditions to be recorded and mapped. This will provide staff with a better opportunity to be more proactive in addressing issues as they arise and in turn, provide better service to the public. This information will also improve the PSD asset management development, moving the Department away from straight line linear asset assessments to actual real world condition reports. Such information will assist O&I in ensuring work and resources are applied to areas where the greatest return on investment can be achieved.

**2-3 The City will ensure prompt and immediate response times supported by resilient communications in the event of system outages and other emergencies.**

Alongside the decision to have the City fleet be outfitted with GPS and cameras to support better responses for system outages, the City has launched the Everbridge Emergency system. Anybody in the community is able to register with the system and it allows the City to send messages to the registered customers advising them of everything from road closures to emergencies.

**2-4 The City will act as the catalyst for continuous improvements to the public realm.**

The O&I Department has been actively involved in looking for new and cost effective ways to improve the service the City provides to residents. The purchase of a drone to better map and monitor beaver dams and activity will in turn, assist in mitigating the risk of road washouts during heavy rains. The implementation of GPS on all of the fleet vehicles will assist in improving the PSD asset management system and service to customers. It will also allow staff to track and reduce idle times and improve routing of vehicles.

**2-5 The City will encourage new housing partnerships leveraging the skills and expertise of public sector, private sector and community-based agencies within Kenora and beyond.**

Between October and December 2016, an inter-departmental working group was formed to develop a plan to incentivize housing development in Kenora. The first stage has involved completing a needs assessment and introductory report to Council. In December, this draft report was circulated to both the Age-Friendly Committee and Housing Pillar within the Mental Health and Substance Abuse Task Force. Feedback from members of both groups were incorporated into the document. During this time, the EDO and co-chair of the LOWDC also began conducting interviews with developers to gather information and assist in mitigating any barriers for housing development.

In addition, the Harbourtown Centre and Former Mill Site Community Improvement Plans (CIPs) were identified as tools to help drive the housing market. With consultant support, the process to include financial incentives specifically geared towards affordable housing is underway.

**2-6 The City will support the development of a diverse range of housing types with an emphasis on affordable options for families, seniors and individuals in need of transitional and emergency housing.**

The development of the 2017 State of Housing Report and expansion of housing incentives within the CIPs have focused on a diverse range of affordable housing. The City has also advocated on behalf of the Kenora District Services Board (KDSB) in its communication with the Province regarding the lack of funding for social housing within the community and across the region.

**2-7 The City will encourage and support the development of vacant and transitional lands for uses that support our vision**

In late 2016, the City of Kenora acquired the vacant lands at 534 Park Street, Kenora Shoppers Mall. This represented a strategic opportunity to guide the City's short and long term goals which include:

- The re-alignment and extension of First Street South
- Improved storm water management
- Support parking requirements for future Harbourtown Centre development
- Alleviate current parking needs within the downtown core.

**2-8 The City will, in partnership with its First Nations partners, continue to advance the Tunnel Island 'Common Ground' project in a manner that celebrates and respects the cultural, historic and environmental importance of the lands for all people.**

Similar to the previous year, development of a proposed governance structure for the Tunnel Island Common Ground project is ongoing.

**2-9 The City will support continuous improvements to recreation and leisure amenities, particularly those that support the quality of life.**

Extensive repairs were completed to the Kenora Recreation Centre in 2016. Among the most significant include the Dryotron system which was repaired and placed back in operation. This system is a “dehumidifier” which collect gallons of water and replaces it into the pool. Despite the tile repair project being postponed for another year, during the pool shut-down, maintenance staff fixed the damage caused by the Dryotron failure in 2015. Major upgrades included the installing of new lifeguard chairs and diving board platforms and the replacement of pool basement stairs.

Other projects completed in early to mid-2016 were the purchase and installation of windscreens for tennis courts, new exhaust air handling units for the Aquatic Centre, replaced fencing for the tennis courts and men’s baseball diamond and the repainting of all lines to the boat launch for vehicles with trailers to improve space use.

During the fourth quarter, the maintenance team continued to improve the facility by installing an all-new control system to the tot & leisure pool, rebuilt the filter for the hot tub, installed new electrical outlets in the Keewatin Memorial Arena and Kenora Recreation Centre for the Engo ice-resurfacers and a brand new heater was installed for the sauna.

**2-10 The City will continue to explore opportunities to develop and improve our beaches, parks & trails.**

An updated Beaches, Parks and Trails Plan that includes Norman Park, Keewatin Beach as well as the Kenora Urban Trails, was adopted by Council in 2016. In anticipation of the 2017 Canada Summer Games, improvements were made to Garrow Park such as repaving and redesigning the entranceway to improve access. This project commenced alongside capital upgrades made by the Kenora Rowing Club to accommodate the event.



In collaboration with Path of the Paddle, the City supported rerouting the registered Trans Canada Trail route with a 10 km waterfront trail that is more appropriate from a tourism, cultural and recreational perspective. The unveiling of this new route is expected for spring 2017. The completion of the Rabbit Lake / Rotary Way accessible loop also commenced in 2016 and will be unveiled in fall 2017.

**2-11 The City will consider the impacts of climate change in both rehabilitating existing and designing future infrastructure requirements, as well as work to mitigate the impacts of climate change in relation to City operations.**

The O&I Department has recently undertaken an LED street light conversion program which will save energy consumption. Whenever new culverts are installed or old ones are replaced, a higher capacity culvert is used, in anticipation of more frequent rainfall/flood events.

In November 2016, the City's EDO and Special Projects and Research Officer attended a series of Train-the-Trainer workshops in Thunder Bay as part of the Great Lakes Climate Change Adaptation Project. Using the knowledge acquired in these workshops, staff will be facilitating a workshop with community stakeholders to understand the risks and vulnerabilities facing Kenora.

**2-12 The City will lead and promote environmental sustainability through conservation, smart building design and, where feasible, retro-fit practices for city-owned facilities.**

In 2016, City staff examined the feasibility of a Municipal Energy Plan (MEP) and identified potential stakeholders that would be required for project success. By year-end, a grant application was completed and sent to the Ministry of Energy for funding towards developing a MEP. Through this project, staff aspire to identify retro-fit opportunities for both City and community infrastructure in order to reduce energy costs and enhance environmental sustainability.

**2-13 The City will pursue operational procurement measures that seek to reduce fuel and energy consumption, where feasible, for city-owned vehicles and equipment.**

As noted previously, the GPS being installed on all vehicles will monitor idle times and better allow the Department to ensure staff adhere to no idle policies already in place. Through Kenora Hydro, the O&I Department is actively seeking ways to reduce facility operating costs and tie these efforts to funding opportunities, wherever possible.

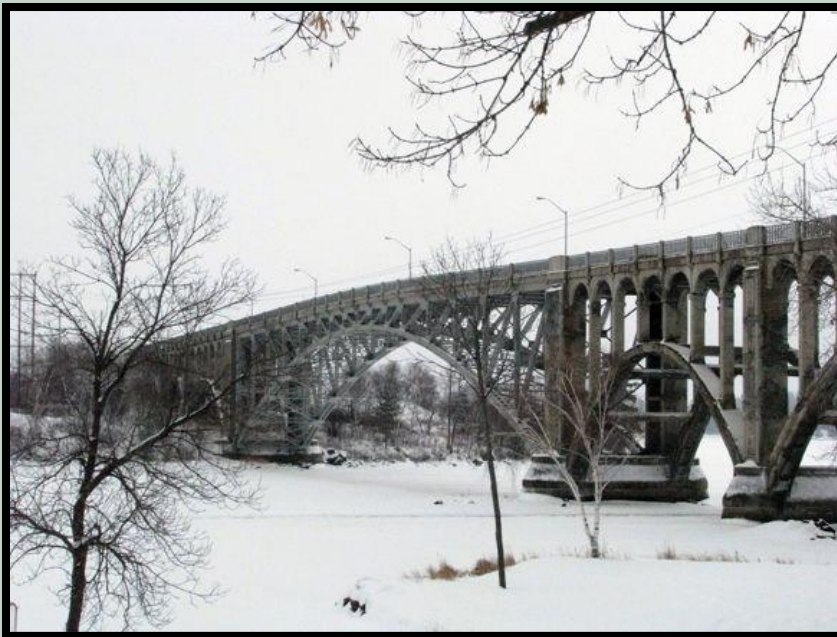
**2-14 The City will continue to advance our leadership position as “Stewards of the Lake” and “Stewards of the Land” by safeguarding water quality on our lakes and optimizing waste diversion practices that reduce future landfill requirements.**

There is a continuous effort being made to maintain and operate the major pumping stations, in as efficient and safe manner as possible, thereby mitigating the risk of overflow or spills occurring. The City will also limit the use of salt during the winter months to 500MT per year to reduce the impact on Kenora’s lakes and water bodies.

In addition, the Recycle Coach app was launched in conjunction with Waste Reduction Week. The purpose of acquiring this tool was first, to promote that the City of Kenora does in fact recycle and second to assist the public with proper recycling and waste disposal. This tool is a free smartphone app with features relating to recycling and waste information, collection schedules and reminders, and a quiz to learn about Kenora’s recycling “rules”. The Recycle Coach app was accompanied with a website plug-in called ‘What Goes Where’, which helps our citizens learn how to properly dispose of an item either by recycling, garbage or other vendor.

**2-15 The City will be an active and vocal champion for fair funding from provincial and federal governments, including gas tax and other transfer allocations. Priority will be given to initiatives that directly address the infrastructure and community development challenges of the City.**

Lobbying has been ongoing with the Province in relation to infrastructure funding issues, with particular focus on Kenora's bridges. Once again, meetings were held with the Province on this issue during both the Association of Municipalities of Ontario (AMO) and the Ontario Good Roads Association (OGRA) conferences. This included discussion of the less-than-fair manner of calculating funding under the Province's annual infrastructure allocation to municipalities. These formulas continue to make it difficult for the City of Kenora to successfully receive funding from certain provincial programs.



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# Focus On Our People

## **3-1 The City will review and implement as appropriate the recommendations as contained within the City's organizational review and approved by Council**

The majority of the organizational review recommendations were implemented in 2016 as illustrated by the Organizational Review Update provided to Council in August. As part of this report, progress made in implementing the remaining recommendations can be reviewed in the appendix.

## **3-2 The City will implement the directions and actions as outlined within the Human Resource Management (HRM) Strategy**

In November 2016, the HR Strategist released a progress report on the implementation of the HRM Strategy. Please see that report for more information.

## **3-3 The City will ensure that customer service excellence is understood and ingrained in the culture and fabric of our organization. The City will commit to a citizen-first approach to maintaining relations with the public. (This will be delivered to all Staff across the organization.)**

As part of the recruitment process, the City has incorporated questions orientated towards customer service in the interview process. Additional training to existing staff on this priority will be provided in mid-2017.

The Recreation Division became a member with High FIVE and offered Principles to Healthy Development to all front line pool staff including supervisors. The Recreation Division is in the process of completing Quest 1 & 2 and for the supervisory staff to become trainers.

The O&I Department has made important strides in terms of customer service, both in the immediate dealings with residents but also in internal changes to improve responsiveness and mitigating issues. GPS on all equipment and the decision to purchase a drone are two examples.

**3-4 The City will embrace the importance of empowering Staff to make decisions that consistently demonstrate our commitment to making prompt, efficient and courteous customer service to our residents.**

Most staff have received the training as provided by Clearlogic in 2016. Empowerment questions have also been incorporated into the interview process and regular training with supervisors is taking place.

Two examples of this priority in effect include the Roads Division decision to repair manholes in-house as opposed to contracting out and the Water and Wastewater Division decision to search for new chemical suppliers to produce significant savings and improved supply.

**3-5 The City will commit to preventing occupational illness and injury in the workplace.**

Annual health & safety training is provided to all staff and regular safety meeting and inspections are taking place in all departments. The O&I Department has been seeking to go beyond the minimum and actively look to change the culture of the workplace. To do so, the Division Leads view all accidents as preventable and are focused on being proactive rather than reactive.

**3-6 The City will leverage the power of peer-to-peer knowledge transfer through mentoring to ensure the continuity of institutional skills and know-how**

The HRM Strategy Progress Report illustrates the corporate measures designed to enhance peer-to-peer knowledge transfer. That being said, in many departments, junior and senior staff are consistently paired to facilitate learning. In the O&I Department this is a daily occurrence due to the nature of the projects from large capital projects through to smaller scopes of work.

**3-7 The City will continue to build and strengthen our working relations with our Treaty 3 First Nations Partners. Kenora is committed to ongoing outreach to our First Nations Partners and building relationships, including joint meetings to identify issues of common concern and to discuss pathways for closer collaboration**

The City of Kenora has supported a resolution confirming its commitment to work in partnership for the development of an All Nations Health Care System including the construction of an All Nations Hospital to improve health outcomes for all people of the region it serves. The leadership group is comprised of Ogichidaa Francis Kavanaugh from Grand Council Treaty #3, the Chiefs from the 10 First Nations communities in the area, the Mayors of Kenora and Sioux-Narrows Nestor Falls and the President of the Kenora Metis Council.

The Recreation Division has reached out to First Nations communities to participate in Swim to Survive. It has successfully offered the program to the outdoor education program at Whitedog and Baibombeh Anishinabe School. The Division also donated passes to Grand Council Treaty 3 for their 2016 Dotigaanabiwin Education & Career Exploration Youth Summit. Treaty 3 recognized the donation and sent a letter of appreciation. Other actions include an application to the Ontario150 Partnership Grant for the provision of the Lifesaving Society's Swim to Survive program to First Nations communities and an offer to the Dalles First Nation to run the Red Cross Swim Sports Program.

**3-8 The City will review the Truth and Reconciliation Commission recommendations with the intent of identifying opportunities that will further strengthen relationships with our Treaty 3 Partners, including cultural sensitivity training**

Since identifying seven TRC recommendations that the City can directly impact, the City has been diligent in rolling-out cultural sensitivity training to all staff. In November, a full-day session was delivered by the Seven Generations Institute to council, senior managers and supervisors. A combination of half-day and two-hour workshops are planned in 2017 for the rest of staff.

**3-9 The City will continue to build and strengthen our working relationships with area municipalities and other partners, such as the Kenora District Services Board**

The Kenora Area Health Care Working Group (KAHCWG) has received a portion of its \$125,000 annual budget from the City of Kenora for a three-year strategy to recruit physicians. This collaborative undertaking involves the LOWDC, the Kenora Chiefs Advisory Council and Waasegiizhig Nanaandawe'lyewigamig Health Access Centre (WHNAC).

With the closure of Kenora's emergency shelter, the City worked collaboratively with the KDSB to advocate for additional funding from the Province in order to restore this vital service and support other shelters in crisis across the region. These efforts have resulted in the KDSB being able to operate a new temporary emergency shelter at the Northwestern Health Unit and enough funding to support the shelters in Red Lake and Sioux Lookout.

Other forms of collaboration include engagement with other municipalities in an effort to share information and pool work to reduce costs where possible. An example of this would be the ground penetrating radar work for the T-intersection. The O&I Department contacted communities in the area to see if anyone else had a need for this type of work in an effort to reduce costs.

**3-10 The City will forge stronger relations with neighbouring communities and area municipalities by City staff, particularly those that help ensure tight co-ordination of emergency response situations, disaster relief efforts and clear communication protocols between the City of Kenora, the Ontario Provincial Police, and the neighbouring communities**

The City's Fire and Emergency Services Department has been active in making changes to operational procedures which are designed to forge stronger relations with neighbouring communities and in turn, improve emergency responses. Additional information can be found in the Organizational Review Update attached as an appendix of this report.

**3-11 The City will ensure that City appointed Boards and Committee Members are familiarized with the City's Strategic Plan, including the Mission, Vision and Values within that plan, together with the importance of their role as a Member of that Board / Committee**

City representatives on all boards and committees have been emphasizing the importance of the Strategic Plan in projects undertaken by these groups. For example, as a member of the LOWDC, the City's EDO has ensured that in developing the 2017-2019 LOWDC Strategic Plan, the principles within the City's Strategic Plan are interlinked. Similarly, the implementation of the 2014 Tourism Strategy has commenced with full-understanding of the connections between the City's Strategic Plan and the priorities of both the LOWDC and Tourism Committee.

**3-12 The City will recognize the importance of leveraging partnerships and work together with our Community and Strategic Partners as appropriate to implement the various strategies as developed by those organizations for the improvement of the City and our Community**

In 2016, City council endorsed the KSAMH Task Force's Community Safety and Well-Being Plan and the Age-Friendly Committee's 2015-2020 Strategic Plan. While both of the groups contain City representation they are community-led initiatives. Moving forward, the City is committed to realizing the goals and priorities of both groups.



# Conclusion

Despite the significant changes made to the Strategic Plan in mid-2016, progress continued to occur in fulfilling the action items identified. In fact, many of the latest additions to the Plan, particularly those relating to the strengthening of partnerships and climate change were given a significant degree of attention.

As part of the review that occurred during the summer, a number of action items were eliminated to reflect the evolving nature of the organizational review which was completed in 2016. Specifically, the 'Focus on Our People' section contained major changes to reflect the roll-out of the HRM Strategy which is designed to target those action items that were previously captured in the Strategic Plan.

There remains one action item which has yet to be addressed by the City, but has been identified as a priority in the City's 2017 draft budget.

Ultimately, the majority of corporate actions including those added this year are considered 'ongoing', as they are not anticipated to be fully realized until the conclusion of the Plan in 2020. The scorecard in Appendix I demonstrates this reality.

# 2016 Strategic Plan Scorecard

## Legend



**Guiding Principle**



**Completed**



**In progress**



**Not Started**

## Guiding Principles

### Corporate Action

**Priority**

**Status**

**GP-1** The City will provide clear and decisive leadership on all matters of economic growth in Kenora and the surrounding district.

Ongoing



**GP-2** The City will forge strong, dynamic working relationships with the Kenora business community.

Ongoing



**GP-3** The City will foster and support entrepreneurial business development for start-ups and young entrepreneurs.







Ongoing








**GP-4** The City will promote Kenora to external investment audiences in specific sectors that provide the most promise for job growth and economic diversification.








Immediate











<b>Strategic Area #1: Develop Our Economy</b>		
<b>Corporate Action</b>	<b>Priority</b>	<b>Status</b>
<b>1-1</b> The City will work with the LOWDC to ensure that the LOWDC is actively working towards Council priorities and the related action items as per the City's strategic plan. This may include regular meetings between the LOWDC and Council	Ongoing	
<b>1-2</b> The City will ensure Kenora is recognized as being 'Open for Business' and facilitating development through streamlining application and approval processes, effectively eliminating any 'red tape'	Immediate	
<b>1-3</b> The City will lay the foundations for investment readiness within the mining sector, taking full advantage of anticipated development activity in the region, including the Ring-of-Fire. This work will include building partnerships with industry, First Nations, provincial & federal governments.	Immediate	
<b>1-4</b> The City will continue to support investment readiness within the forestry sector, taking advantage of new housing construction growth and improved conditions for wood fibre building materials. This work will include building partnerships with industry, First Nations, provincial & federal governments.	Immediate	
<b>1-5</b> The City will document existing City land, identify new opportunities and future growth areas, and consider putting the appropriate zoning in place for potential future development. This may include land assembly for the purpose of developing business parks intended to clear the way for new industrial investment.	Ongoing	
<b>1-6</b> The City will clearly communicate the importance of non-residential assessment and its impact on the tax base.	Immediate	

<p><b>1-7</b> The City will lobby senior government for additional supports for local industry and business in relation to ongoing workforce development.</p>	Ongoing	
<p><b>1-8</b> The City will promote Kenora as a 365-day lifestyle destination.</p>	Immediate	
<p><b>1-9</b> The City will promote and leverage its recreation and leisure amenities as a means to support local economic activity, tourism and to strengthen community ties with our regional neighbours.</p>	Immediate	
<p><b>1-10</b> The City will support Kenora’s “North America’s Premier Boating Destination” Brand.</p>	Ongoing	
<p><b>1-11</b> The City will support, promote and expand the tourism industry. In recognition of the growing importance of tourism within the economy, Kenora will pursue the recruitment and facilitation of a new event(s) which celebrates Kenora as a thriving and dynamic year-round destination.</p>	Ongoing	







## Strategic Area #2: Strengthen Our Foundations







Corporate Action	Priority	Status
<b>2-1</b> The City will ensure that our municipal infrastructure assets are managed and maintained using available resources through a robust asset management plan and process, with the intent of moving towards all City infrastructure being in a good state of repair to ensure certainty, security and long-term stability of our systems	Ongoing	
<b>2-2</b> The City will keep in the forefront that there is a significant infrastructure deficit, and current and future Councils will need to continue to work towards allocating sufficient resources to be able to adequately address this issue.	Immediate+ Ongoing	
<b>2-3</b> The City will ensure prompt and immediate response times supported by resilient communications in the event of system outages and other emergencies.	Ongoing	
<b>2-4</b> The City will act as the catalyst for continuous improvements to the public realm.	Ongoing	
<b>2-5</b> The City will encourage new housing partnerships leveraging the skills and expertise of public sector, private sector and community-based agencies within Kenora and beyond.	Immediate	
<b>2-6</b> The City will support the development of a diverse range of housing types with an emphasis on affordable options for families, seniors and individuals in need of transitional and emergency housing.	Immediate	
<b>2-7</b> The City will encourage and support the development of vacant and transitional lands for uses that support our vision.	Ongoing	

<p><b>2-8</b> The City will, in partnership with its First Nations partners, continue to advance the Tunnel Island 'Common Ground' project in a manner that celebrates and respects the cultural, historic and environmental importance of the lands for all people.</p>	Ongoing	
<p><b>2-9</b> The City will support continuous improvements to recreation and leisure amenities, particularly those that support the quality of life</p>	Ongoing	
<p><b>2-10</b> The City will continue to explore opportunities to develop and improve our beaches, parks &amp; trails.</p>	Ongoing	
<p><b>2-11</b> The City will consider the impacts of climate change in both rehabilitating existing and designing future infrastructure requirements, as well as work to mitigate the impacts of climate change in relation to City operations.</p>	Ongoing	
<p><b>2-12</b> The City will lead and promote environmental sustainability through conservation, smart building design and, where feasible, retro-fit practices for city-owned facilities.</p>	Ongoing	
<p><b>2-13</b> The City will pursue operational procurement measures that seek to reduce fuel and energy consumption, where feasible, for city-owned vehicles and equipment.</p>	Ongoing	
<p><b>2-14</b> The City will continue to advance our leadership position as "Stewards of the Lake" and "Stewards of the Land" by safeguarding water quality on our lakes and optimizing waste diversion practices that reduce future landfill requirements.</p>	Ongoing	

<p><b>2-15</b> The City will be an active and vocal champion for fair funding from provincial and federal governments, including gas tax and other transfer allocations. Priority will be given to initiatives that directly address the infrastructure and community development challenges of the City.</p>	Ongoing	
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**Strategic Area #3: Focus On Our People**



<b>Corporate Action</b>	<b>Priority</b>	<b>Status</b>
<p><b>3-1</b> The City will review and implement as appropriate the recommendations as contained within the City’s organizational review and approved by Council</p>	Ongoing	
<p><b>3-2</b> The City will implement the directions and actions as outlined within the Human Resource Management (HRM) Strategy</p>	Ongoing	
<p><b>3-3</b> The City will ensure that customer service excellence is understood and ingrained in the culture and fabric of our organization. The City will commit to a citizen-first approach to maintaining relations with the public. (This will be delivered to all Staff across the organization.)</p>	Immediate	
<p><b>3-4</b> The City will embrace the importance of empowering Staff to make decisions that consistently demonstrate our commitment to making prompt, efficient and courteous customer service to our residents.</p>	Immediate	
<p><b>3-5</b> The City will commit to preventing occupational illness and injury in the workplace.</p>	Ongoing	
<p><b>3-6</b> The City will leverage the power of peer-to-peer knowledge transfer through mentoring to ensure the continuity of institutional skills and know-how.</p>	Immediate	

<p><b>3-7</b> The City will continue to build and strengthen our working relations with other neighbouring municipalities and our Treaty 3 First Nations partners. Kenora Council and senior leadership are committed to annual meetings with our First Nations partners to identify issues of common concern and to discuss pathways for closer collaboration.</p>	Ongoing	
<p><b>3-8</b> The City will review the Truth and Reconciliation Commission recommendations with the intent of identifying opportunities that will further strengthen relationships with our Treaty 3 Partners, including cultural sensitivity training</p>	Immediate	
<p><b>3-9</b> The City will continue to build and strengthen our working relationships with area municipalities and other partners, such as the Kenora District Services Board.</p>	Ongoing	
<p><b>3-10</b> The City will forge stronger relations with neighbouring communities and area municipalities by City staff, particularly those that help ensure tight co-ordination of emergency response situations, disaster relief efforts and clear communication protocols between the City of Kenora, the Ontario Provincial Police, and the neighbouring communities.</p>	Ongoing	
<p><b>3-11</b> The City will ensure that City appointed Boards and Committee Members are familiarized with the City's Strategic Plan, including the Mission, Vision and Values within that plan, together with the importance of their role as a Member of that Board / Committee</p>	Ongoing	
<p><b>3-12</b> The City will recognize the importance of leveraging partnerships and work together with our Community and Strategic Partners as appropriate to implement the various strategies as developed by those organizations for the improvement of the City and our Community</p>	Ongoing	



# Appendix I: Organizational Review Update (March 2017)

Since the previous Organizational Review Update in August 2016 there has been notable progress made in addressing the remaining recommendations. Provided below is a snapshot of the major highlights that have either been completed or are nearing completion.

Legend	
	Complete
	Ongoing 

Department	Recommendation
Corporate Services and Strategic Initiatives	Develop a Communication Strategy to establish how communications will be undertaken at the City and to identify roles and responsibilities, media relations, social media, official spokespersons and other relevant policies and strategies to support effective communication. The development of a communication strategy has been identified as a goal for the Manager of Legislative Services in 2015.

**Status**



This was released at the February 14, 2017 Committee of the Whole meeting and further approved by resolution/bylaw at the February 21<sup>st</sup> Council meeting.

**Department Recommendation**

Corporate Services and Strategic Initiatives

That a Customer Service and Communications Team be established. It is proposed that this team be chaired by the Clerk. Members should include the Communications Clerk, as well as representatives from each department.

**Status**



A survey was conducted in 2016 requesting volunteers who may be interested in being part of the communications team. A few meetings have been held, however, primarily the communications staff have been working on implementation of communication needs. The committee will be reconvening now to work on implementation of the new communication strategy and work plans resulting from that strategy.

Department	Recommendation
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Corporate Services and Strategic Initiatives	Enhance the City's Website in terms of content, layout, navigation and consistency through the development of an internet strategy.
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Status
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The new website was launched at the February 14, 2017 Committee of the Whole meeting.

Department	Recommendation
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Corporate Services and Strategic Initiatives	As a priority, develop a communication strategy for emergency/severe winter weather
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Status
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The Everbridge Emergency system has been launched which includes contact to the community who can register with the system. A communication strategy directly related to emergency/severe winter weather can be developed at a future date.

## Department

## Recommendation

Corporate Services and Strategic Initiatives

That Corporate Services & Strategic Initiatives investigate new opportunities to provide online services. This was mentioned in the community consultation as a way of enhancing customer service.

## Status



The City has extended online services with the new portal launch and have implemented the fees accordingly.

## Department

## Recommendation

Corporate Services and Strategic Initiatives

Review enforcement procedures for all by-laws (e.g. short form wording) to increase efficiencies.

## Status



Several reviews of bylaws have been completed and short form wording has been added to many bylaws that are used frequently. Enforcement will be eased through updating the few bylaws left but generally, this item will always be ongoing with new bylaws or amendments to bylaws.

Department	Recommendation
Corporate Services and Strategic Initiatives	Develop a Complaints Tracking Protocol and Formal Escalation Process in By-law Enforcement—The City has not defined a formal escalation process with timeframes to resolve complaints nor does a complaint management system exist where information is logged and accessible for all staff. The current system does not allow the ability to mine data and trend across the City for continuous improvement opportunities.
Community and Development Services	Complaints Tracking—There is a need for a complaints tracking and resolution process to be integrated into the management process across the department. To this end, the additional management /supervisory staff will provide the resources necessary to develop and increase quality management processes to support this initiative. This will be further supported by the recommendation to review the process and technology for complaints tracking for the City under corporate wide recommendations.
Corporate-Wide	Improve the processes and technology to Track Customer Question, Complaints and Problem Resolution. This will require the investigation of the existing technology, with improved opportunities to analyze and summarize the data.

## Status



My311 will be launched in early spring 2017 and address not only by-law enforcement but all departments and provide a tracking system along with a reporting system on complaints.

Department	Recommendation
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Fire & Emergency Services	Create a committee to review the running assignments to support effective and efficient delivery of service to all areas of the community. This would include involvement of staff from all stations and a review of historical activity and future growth.
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Status
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A comprehensive review of Kenora Fire and Emergency Services running assignments began in early 2016, involving all Captains from each fire station, Central Ambulance Communications Centre (Dispatchers) and the Fire Chief.

We reviewed the current response types by station and by volunteer verses career and made adjustments accordingly. When the City amalgamated in 2000 there were 4 fire stations and 4 fire districts and in 2009 the new fire hall was constructed and Station 3 was absorbed into Station 1 but remained as its own entity.

The amalgamation process focused on the 3 fire stations and 3 fire districts, subsequently moving from four to three fire districts for running assignments. The process took several months to construct and went live in June of 2016. It has since been amended twice. The group worked extremely well together and to date, the new running assignments have been working very well.

Department	Recommendation
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Fire and Emergency Services	Create a plan with clear timeframe to maintain and update the Standard Operating Guidelines (SOG's).
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Status
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The SOG's are live documents and reviewed regularly for fire departments. The current revisions and additions were contingent on the completion of the new running assignments as they affect many of the operating SOG's. A thorough review of all SOG's started in late 2016 and are being updated to current running assignments. Currently, SOG's have been broken up amongst the officers group and are being assessed to 2017. Any deficiencies will be addressed and new SOG's will be drafted. They will updated and completed by September of 2017.

Department	Recommendation
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Fire & Emergency Services	Identify all opportunities for training staff with consideration to having key staff sent on training sessions to train the other staff.
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**Status**



The Fire and Emergency Services Department has been working with the Ontario Fire College (OFC) and the Ontario Fire Marshalls (OFM) Office in bringing National Fire Protection Association (NFPA) standard courses to the Northwest. Opportunities to attend train-the-trainer programs and develop an instructor base are being formulated with the OFM and OFC.

**Department Recommendation**

Fire & Emergency Services

Review existing practices for volunteer firefighter recruitment practices and identify strategies to streamline the process and remove obstacles to ensure that the City has sufficiently well trained volunteer firefighters.

**Status**



Complete with new recruitment starting in early 2017.



Department	Recommendation
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Fire & Emergency Services	Review and identify opportunities to recognize staff's achievements.
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Status
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Chief has applied for Long Service Medals (20 plus years) for fire fighters. Service pins (5 yrs, 10yrs, 15 yrs etc.) were handed out during the year-end meeting. Firefighters are recognized regularly during training sessions for the achievements.

In addition, NFPA Fire College Certificates were handed out to individuals who attended and passed the recent certification courses from 2016.

Department	Recommendation
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Fire & Emergency Services	Identify opportunities to utilize the City's new fire hall for training remote communities as a revenue generating opportunity.
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**Status**



Discussions with local First Nations groups that provide their own fire protection have occurred. The purpose is to help train their staff to NFPA standards but to date there have been no firm commitments.

In 2015 and 2016 surrounding departments were invited to Kenora for new recruit training and to date, 11 external fire fighters have been trained at a nominal fee.

The Department is currently seeking additional opportunities to train external fire services.

**Department Recommendation**

Community & Development Services

Develop "job function orientation kits" for each position outlining standards, forms, processes and role-related policies and procedures and an orientation to the department structure, mandate and values to enable efficient and effective transitions to new positions for staff who are replacing people on leave or retiring.

**Status**



The Recreation Division has developed training manuals for pool and desk staff in all positions.

Department	Recommendation
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Community & Development Services	The Department should purchase HIGH FIVE’s Guide to Policies and Procedures ( <a href="http://www.highfive.org">www.highfive.org</a> ) which contains 86 standard Policies and Procedures related to the operation of recreation and sport programs for children. Implementation of these Policies and Procedures will reduce risk, demonstrate due diligence, increase the quality of services, reduce customer complaints and increase the department’s service image.
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Status
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The Recreation Division subscribed as a member to High FIVE and implemented the first stage of training amongst staff. Pool and Recreation staff participated in the first session to the program.

Department	Recommendation
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Community & Development Services	Develop a Recreation, Parks, Culture and Tourism Leisure Guide outlining all of the services, fees, events, dates, locations and other appropriate policies and public information about department services. Install this on the municipal website in the form of a “flip book” and update it seasonally. Print copies for distribution through department facilities and libraries and promote the online access at all facilities. This will definitely provide better quality information to the public and will serve as a planning template for staff to create a more formalized program and service schedule for all facilities on a seasonal basis. It also serves to educate the public about the services that are paid for by their taxes. Ad space can be sold through this process as well.
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**Status**



The Department worked alongside Fifth Hammer Marketing Group and created as well as distributed the first Fall/Winter Leisure Guide. The Leisure Guide was mailed to each household in Kenora and was displayed at City departments for customers. There will be two issues Spring/Summer and Fall/Winter. The first edition had positive feedback and more groups would like to participate in the following issues.

**Department Recommendation**

Operations & Infrastructure	Manage Council and public expectations for roads maintenance through improved communication with Council (see recommendation for Department as a whole). This includes undertaking public education regarding the levels of service that can be expected.
Operations & Infrastructure	Develop and implement an enhanced public education and communication program to clarify existing services, promote new services and improve customer relations.

**Status**



As part of the new website, residents can access a GIS map that indicates the priority level and standards for snow removal on City roadways.

Department	Recommendation
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Operations & Infrastructure	Consider establishing an Automatic Vehicle Location (AVL)/GPS based program for tracking vehicle activity. This technology is used for many applications including dispatch for quick response, routes passed and time, e.g. plow routes, garbage routes, etc. This would help to optimize resources and provide staff with the information to respond to public questions regarding issues such as missed roads, missed garbage pick-ups, etc. One example is the Town of New Tecumseth uses the AVL/GPS program to allow residents to see up-to-date information and view in real time where plowing is taking place by checking online.
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Status
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The O&I Department has secured funding to implement the AVL/GPS based program and intends on acquiring and installing the equipment over the next few months.

Department	Recommendation
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Operations & Infrastructure	Provide ongoing education to the incoming Council on the current asset condition situation and potential long-term liability. Although infrastructure renewal is a priority in the Strategic Plan, there should be ongoing reporting and communications with Council on
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progress to keep the focus on asset management due to the magnitude of the financial implications.

## Status



Public Sector Digest will be presenting the 2016 Asset Management Plan in March to Council. Following the presentation, the consultants will meet with staff to look at the next steps including starting to update condition data on assets and work towards improving municipal infrastructure.

## Department

Operations & Infrastructure

## Recommendation

Develop a concise and risk based multi-year CCTV sewer inspection program to target priority segments of the sewer system based on operational experience and magnitude of potential impacts.

## Status



A plan has been developed to commence with a multi-year CCTV sewer inspection program to help support the 2016 Asset Management Plan. Pending funding approval, this program will begin in the summer of 2017.

Department	Recommendation
Operations & Infrastructure	Change the by-law to make owners responsible for all future grinder pump costs. Approaches could include: simply making owners responsible; contracting out service to build private sector capacity in the City so that owners can go directly to the private sector in the future; charge back to home owners on a full cost recovery basis, i.e. they can pay into a maintenance system. The main advantages are: reducing costs to water and sewer ratepayers; more time for staff to allocate to 65 Sewage pumping stations.

### Status



The O&I Department will be providing a recommendation to Council in April regarding the future of grinder pump maintenance.

Department	Recommendation
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Operations &  
Infrastructure

Undertake a comprehensive review of the various areas for which there is potential liability within the organization with an overall objective of developing a risk management program and strategy. This should include having Risk Management work with all departments to develop a risk inventory and strategic risk management plan through an interdepartmental risk identification and review of protocols. This will enable the City to establish additional controls to help mitigate the identified risks.

## Status



The City has recently enacted an Enterprise Risk Management (ERM) Policy which primarily affects how risks are communicated to Council. The ERM Framework document prescribes a variety of tools to help identify, analyze and treat risks in developing a recommendation. Risk registries will be developed in the summer to take the next step in ERM implementation.





March 14, 2017

## City Council Committee Report

**To: Mayor and Council**

**Fr: Natalie Pearson, Deputy Treasurer**

**Re: 2017 Updated Capital Budget Approval**

### **Recommendation:**

That Council hereby approves the 2017 Municipal Capital Budget, including Unusual Spending, as amended; and further

That Council hereby directs staff to actively proceed with the projects included in that budget in accordance with the provisions of the City procurement bylaw; and further

That in accordance with Notice Bylaw 144-2007, public notice is hereby given that Council intends to adopt its 2017 Municipal Capital and Unusual Spending Budget at its March 21, 2017 Council meeting; and further

That Council hereby gives three readings to a bylaw for this purpose.

### **Background:**

Council met on February 21, 2017 to review and amend the 2017 draft capital budget. The following provides a summary of the changes made both during Council's review, together with any final amendments made by staff:

#### 2017 Capital Budget Updates:

- 1) 17.125.01 City Hall Windows budget increased from \$200,000 to \$250,000 due to additional reserves funds being available from 2016.
- 2) 17.312.04 Keewatin Channel Bridge carryforward setup for \$265,000 from 2016 for a contractor claim that will be finalized in 2017.
- 3) 17.341.02 Announcement System for the buses of \$31,000 which is a carryforward from 2016 not initially setup.
- 4) 17.382.01 Coney Wharf Rehabilitation amount from reserve decreased by \$81,851 as funding of that amount is available to be used towards the project.
- 5) 17.421.01 Storm Sewer Program increased by \$80,000 to fix storm sewer alignments and will come from the Storm Sewer reserve.
- 6) 17.733.03 Tile Pool Deck amount from reserve decreased by \$12,405 as additional net tax levy dollars became available due to changes in the long term debt payments for the year.
- 7) 17.736.02 KMA Roof Replacement of \$173,000 which is a carryforward from 2016 not initially setup.
- 8) 17.738.02 JM Arena SportsPlex Viewing Area \$100,000 from contingency and transferred from the deleted list as per council approval.
- 9) 17.851.02 and 17.851.03 Water Street T Intersection Design and Environmental Assessment work setup for \$100,000 to come out of the Roads Reserve and

\$50,000 to come from Federal Gas Tax funding respectively which were not initially setup.

2017 Unusual Spend Budget Updates:

- 1) U17.121.01 Municipal Energy Plan update to funding available for the project increased funding by \$3,923 and decreased the related reserve.
- 2) U17.370.01 Kenora Airport Authority Grant \$250,000 added as per council approval.

Long Term Debt List Updates:

- 1) Event Centre Design & Construction projects were removed from the list, as per council approval.
- 2) 4 Plex Baseball Diamonds total project increased to \$1,000,000 from \$800,000 after more updated costs were received.
- 3) Beaches, Parks & Trails project increased annually by \$853,092 with the addition of the Norman Park and the Keewatin Beach.
- 4) Dock Rehabilitation of \$276,550 was added to 2017 to reflect the top ten capital projects previously approved by council in 2016.

As a result of these changes the affect to the contingency reserve is as follows:

**CITY OF KENORA  
CAPITAL BUDGET CONTINGENCY SUMMARY  
2017**

Project ID	Project Description	Total Project Cost	Contingency Reserve
17.381.01	Relocate Existing Docks	25,000	25,000
17.711.02	Keewatin Beach Retaining Wall	30,000	30,000
17.713.01	Anicinabe BBQ Pit	37,000	37,000
17.717.01	JM Washroom Building Repairs	20,000	20,000
17.733.03	Tile Pool Deck	400,000	110,292
17.738.02	JM Arena SportsPlex Viewing Area	100,000	100,000
U17.121.01	Municipal Energy Plan	144,807	72,404
U17.131.01	Asset Management Plan	67,000	67,000
U17.370.01	Kenora Aiport Authority Grant	250,000	250,000
U17.811.06	Investment Readiness Audit	25,000	15,000
U17.834.01	Canada Summer Games	15,000	15,000
<b>TOTALS</b>		<b>1,113,807</b>	<b>741,696</b>

**Budget:**

There is no expected budget impact as a result of this report. It is noted, however, that a more robust discussion needs to occur in conjunction with the 2017 municipal operating budget on the net tax levy allocation to capital projects and unusual spending. For further information on this matter, please refer to the report from the CAO entitled "2017 Capital Budget" dated 11 February 2017.

**Risk Analysis:**

Financial – the risk related to ongoing capital requirements has been assessed as high to critical, mitigated through the operating budget deliberations.

Operations – the infrastructure deficit and need to ensure reliable infrastructure and ongoing capital programs has been assessed as critical, mitigated through the operating budget deliberations. Failure to approve the capital budget in a timely manner will provide further risk with regards to ensuring capital works move forward in 2017.

**Communication Plan/Notice By-law Requirements:** Notice will be given in accordance with the provisions of the Notice Bylaw - #144-2007.

**Strategic Plan or other Guiding Document:** Strategic Plan Corporate Actions 2-1 and 2-2.



March 1, 2017

## City Council Committee Report

**To: Mayor and Council**

**Fr: Heather Kasprick, City Clerk**

**Re: 2018 Municipal Elections**

### **Recommendation:**

That Council gives three readings to a bylaw authorizing the use of alternative voting methods, including internet and telephone voting for the 2018 Municipal Election; and further

That the Clerk be authorized to select vendors for the provision of the 2018 Municipal Election; and further

That the Clerk be delegated authority to execute any agreements necessary to implement the 2018 Municipal Election; and further

That no further action be taken with respect to ranked ballots at this time.

### **Background:**

The 2018 Municipal Elections are right around the corner and the Clerk, who is also the returning officer for the municipal elections, must begin preparations the year prior to the election to meet several legislated deadlines.

The Municipal Elections Act, 1996 regulates the conduct of municipal and school board elections in Ontario. In addition to providing regulation of candidates and electors, the Act also sets out roles for municipal clerks and councils.

The Municipal Elections Act, 1996 covers administration of the election process, including:

- Elections of persons
- Questions on the ballot (aka - referendums)
- Roles and responsibilities of the municipal clerk, municipal council, school board, school board secretary, candidates, electors
- Rules related to voting, voter and candidate eligibility
- Method of voting
- Campaign and campaign finance rules
- Compliance, enforcement and penalties

The Ministry of Municipal Affairs and Housing reviews the Municipal Elections Act, 1996 after each Ontario municipal election to determine if it meets the needs of Ontario communities. The Municipal Elections Modernization Act, 2016, or Bill 181, makes changes to the Municipal Elections Act, 1996. Some of these changes come into effect immediately after Royal Assent and certain changes do not come into effect until April 1, 2018, in time for the next municipal election.

Ranked balloting is one of the biggest changes as far as options for voting. Municipal councils now have the option of passing by-laws to use ranked ballots starting in the 2018 municipal election. If used, it must be used for all municipal candidates. It is not an option for school board candidates, and therefore would require a separate election method for school board elections should Council choose this option.

This option allows a voter to rank candidates in order of preference – 1<sup>st</sup> choice, 2<sup>nd</sup> choice, 3<sup>rd</sup> choice instead of just voting for one candidate in the first past the post system. The default is three rankings but a bylaw of Council could specify a different number. If the ranked ballot system is utilized for regular elections, it would also have to be used in a by-election.

Advantages to ranked ballot voting include the potential to give voters a greater say in who is elected and increase voter engagement. The winning candidate(s) receive support from a majority of voters more often and there is reduced strategic voting along with reduced negative campaigning. It also encourages candidates to remain in the race until voting day.

There are several disadvantages which lead me to my recommendation to not move forward with ranked balloting in the 2018 municipal election. There are additional costs, equipment and time for the elector to cast at least two ballots instead of one. School Board elections cannot be done in this method and therefore requires two separate elections. Implementation of a new alternative voting method such as internet/telephone voting and ranked balloting at the same time could cause confusion and require additional staff resources and education to the voter, at increased cost. The set-up, testing and use of vote casting and counting technology will be significantly more complex in a ranked ballot election event. Canadian vendors have no or limited experience with ranked ballots, although some have provided tabulators to American elections that used ranked balloting. A ranked ballot election with a manual count (no tabulators or internet voting) would be very difficult with significant time and resource required for staff and result in long delays for election results for candidates and the public. Further, accessibility is a concern as there is some thought that ranked ballots are a barrier to persons with disabilities and language barriers. Result reporting will be much longer to report to the public and managing the expectations of such. Education and communication campaigns are needed and therefore putting an additional strain to elections budgets. This is a new method of voting in Ontario and at the time writing this report, no small municipality have chose ranked balloting for the 2018 municipal election leaving the Returning Officer with limited access to peers for collaboration of best practices and processes. Simply put, it is too new, and let's not be the first municipality to advance ranked balloting in Ontario.

It is interesting to note the Minneapolis Minnesota experience with ranked balloting. They have a population of 400,000 (230,000 electors) and in 2009 they held a first ranked ballot type election with paper ballots with manual count. The results took 15 days to report. In 2013 they used ranked balloting with tabulators and had a 33% voter turnout with it taking 3 days to determine who was elected. They spent \$1.8 million on their communications/public outreach campaign to explain the voting and counting process.

## **Municipal Elections Act Overview**

Changes to the election calendar reflect recommendations from the public, municipal councils and municipal staff to shorten the election campaign period. The first day that

nominations can be filed for a regular election will be May 1st. Nomination day (the deadline to file a nomination) for a regular election will move to the fourth Friday in July (July 27, for the 2018 election).

A number of other deadlines related to regular elections have also changed:

- The deadline for a municipality to pass a by-law to place a question on the ballot has moved to March 1st in an election year. The deadline for other questions (e.g. a school board, a minister's question) will be May 1st.
- The deadline to pass by-laws authorizing the use of alternative voting, such as by mail or by internet, and vote counting equipment will be May 1st in the year before the election (e.g., May 1, 2017 for the 2018 election).
- The clerk will need to have procedures and forms related to alternative voting and vote counting equipment in place by December 31st in the year before the election.

Changes to campaign finance provisions will help ensure that the rules are consistent with transparent, accountable, fair and modern election finance practices. Corporations and trade unions are no longer eligible to contribute to municipal election campaigns. This includes all council and school board elections. Corporations and trade unions can be third party advertisers and make contributions to third party advertisers.

There will be a new spending limit for parties and expressions of appreciation after voting day. A candidate who does not accept any contributions of money, or incur any expenses, is not required to open a bank account. If a candidate sells items for \$25 or less in order to raise campaign funds, the money is considered campaign income rather than a contribution. In this case, the candidate does not have to issue a receipt, or make sure that the person buying the item is eligible to make a campaign contribution.

The Municipal Elections Act, 1996 now includes a framework for third party advertising. The framework will come into effect on April 1, 2018, so that the rules will be in place for the 2018 municipal election. A third party advertisement is a message in any medium (billboard, newspaper, radio, etc.) that supports or opposes a candidate or a "yes" or "no" vote on a question on the ballot. Third party advertising does not include issues-based advertising so groups that do public outreach can continue their issued-based advocacy work throughout the municipal election period. Advertising that does not cost money to post or broadcast, such as comments made on social media, will not be considered to be third party advertising. Individuals, corporations and unions can register as third party advertisers and make contributions to third party advertisers. Third party advertisers will need to register with the municipality where they want to advertise. If they want to advertise in more than one municipality, they have to register in each municipality. Registration allows a third party advertiser to promote or oppose any candidate that the electors in the municipality can vote for (local council, school board trustee positions and regional or county council offices). Third party advertising must be done independently of candidates, who are not able to direct a third party advertiser. Candidates are not able to register as third party advertisers.

Most campaign finance rules that apply to candidates will also apply to third party advertisers. Third party advertisers will have spending limits and there will be contribution limits for those wishing to contribute to a third party advertiser. Corporations and unions will be permitted to make contributions to third party advertisers, but will not be permitted to make contributions to candidates. Rules for determining whether two corporations should be considered as a single corporation are simplified, so that it should be easier for corporations and candidates to determine whether the contributions from two corporations should count towards the same contribution limit to third party advertisers.

Campaign provisions have been clarified to allow candidates to access apartment buildings, condominiums, non-profit housing co-ops or gated communities from 9 a.m. until 9 p.m. in order to campaign. Landlords and condominium corporations will not be allowed to prohibit tenants or owners from displaying campaign signs in their windows. Candidates and third party advertisers are required to identify themselves on campaign advertisements and signs, so that it is clear who is responsible for each sign and advertisement that appears or is broadcast.

Changes to the Municipal Elections Act, 1996 aim to encourage greater compliance with the campaign finance rules. Every candidate will be entitled to a refund of the nomination fee if they file their campaign financial statement and, if needed, the auditor's report by the deadline. There is a 30-day grace period for candidates and third party advertisers who miss the deadline to file a financial statement and auditor's report, provided that the candidate or third party advertiser pays a \$500 late filing fee to the municipality.

If a candidate or third party advertiser has filed their financial statement before the deadline and then discovers an error, they can file a corrected financial statement and auditor's report up until the filing deadline. If an eligible voter believes that a candidate or third party advertiser has contravened an election campaign finance rule, the voter may apply for a compliance audit. Compliance audit committees will be required to provide brief written reasons for their decisions.

There will be a new process regarding contribution limits. The clerk who conducted the election is responsible for reviewing the contributions that are reported on the financial statements to council and trustee candidates as well as third party advertisers. If a contributor appears to have given more than the contribution limits allow, the clerk will report this to the compliance audit committee. The compliance audit committee will then decide whether to commence a legal proceeding against the contributor.

Currently, it is an offence to give, lend, offer or promise someone an office or employment in order to convince a person to run for office, but not to run for office or withdraw from running for office. This has been expanded so that it is also an offence to give, lend, offer or promise someone money or other compensation in order to induce a person to run for office, not run for office or withdraw from running for office.

The government will continue to work with stakeholders and a stakeholder working group to look at systemic issues in the development of the voters' list, and to try to identify solutions for longer-term improvements. While this work is ongoing, some changes aim to help address certain issues immediately. All certified candidates have access to the parts of the voters' list that apply to the office they are running for beginning September 1st in the election year.

Previously, applications to add, delete or change a person's own information on the voters' list had to be done in person or in writing. Municipal clerks are now able to determine other formats that people could use to make these applications.

The process to remove from the voter's list the name of a person who has died has been simplified. An application can be made from September 1st up until the close of voting on voting day. Even if the clerk has not received a request, the clerk can remove a name from the list if the clerk knows that the person has died.

There is a new requirement that anyone wishing to run for office on a council must submit the signatures of 25 voters supporting the nomination. The individuals providing the signatures will each have to sign a declaration stating that they were

eligible to vote in the municipality on the day that they signed the endorsement. If a candidate files a nomination, and then changes their mind and decides to run for a different office on the same council, they are not required to submit new signatures. The requirement to submit 25 nomination signatures does not apply to candidates running for school board trustee positions.

Municipalities and school boards are required to set out policies on the use of municipal and board resources during an election. Municipalities and school boards are able to set out a policy before the election addressing when an automatic recount will be conducted. (For example, a council may decide before the election that if two candidates are within 10 votes of each other, a recount will be held without either of the candidates having to request it.)

Clerks, rather than councils, will determine the dates and times for advance voting. They can also establish reduced voting hours in certain institutions and determine whether voting places will open early on voting day.

Another change prohibits voters from taking photographs or videos of their marked ballots. In addition, members of the public are able to inspect documents and materials related to the election for 120 days after the results of the election have been declared.

Clerks are now required to not only declare who wins the election but also provide the public with information regarding the number of votes received by each candidate, the number of votes for “yes” and “no” for a question on the ballot, and the number of declined and rejected ballots.

Clerks have greater flexibility in determining how certain election documents may be submitted and how notices are sent out.

Original signatures are required only for nomination forms, third party advertiser registration forms and proxy appointment forms.

Clerks are required to prepare a plan for the identification, removal and prevention of barriers that affect voters and candidates with disabilities, and make the plan available to the public before voting day in a regular election. The clerk also needs to provide a follow-up report to the public within 90 days after the election.

The following is a summary of the changes to the 2018 Elections Calendar:

<b>Change</b>	<b>Old Legislation</b>	<b>New Legislation</b>
By-law – Use of Alternative Voting Methods	June 1, 2018	May 1, 2017
By-law – Use Ranked Ballots	N/A	May 1, 2017
Clerk’s Policies & Procedures for voting/alternative voting	June 1, 2018	December 31, 2017
Clerk determines single or batch elimination – ranked ballots	N/A	December 31, 2017
Approval of Ballot Question - Approved by Council bylaw - Ordered by upper-tier minister	180 days prior June 1, 2018	March 1, 2018 May 1, 2018
Nominations + 3 <sup>rd</sup> party advertiser Registration open	January 2, 2018	May 1, 2018
Use of Corporate Resources Policy	N/A	May 1, 2018
Nomination Day	September 14, 2018	July 27, 2018
Close of 3 <sup>rd</sup> party advertising registrations	N/A	October 19, 2018



## 2018 Recommended Election Voting Method

There is information regarding experience with vote by mail, pros and cons of internet voting, security, process, details regarding a parallel telephone voting system, case examples from different municipalities and other factors considered for the 2018 municipal election.

Internet and telephone voting has been used extensively in municipal elections throughout Ontario with very positive results. The number of municipalities moving in that direction is increasing.

The City of Kenora used alternative voting methods for the 2014 elections including vote by telephone and internet. Based on the enhancements and natural evolution of the use of the internet, the next cycle is proposed to use primary internet voting with the option for telephone voting.

While the exact procedures have not been established, the general process for vote by internet/telephone is as follows:

- Eligible electors on the voters' list receive an individual letter in the mail with a personalized PIN
- Users log into the identified site, or dial the toll free number provided, with their PIN and a second identification feature will be requested at time of log in/call
- Users cast their ballot online through a variety of prompted screens or prompts on the call
- After ballot is completed and verified, the elector is noted as voted and the PIN is no longer active

Electors can use any device that has access to the internet including smart phones, tablets, computers, telephone to cast their ballot.

A common criticism of internet voting is unreliable access to internet or familiarity with technology. Although voting locations will be made available again such as City Hall, Library, senior home complexes, recreation centre, etc, some users may still not wish to cast their ballot through the internet. For this reason, vote by telephone is offered to run concurrently.

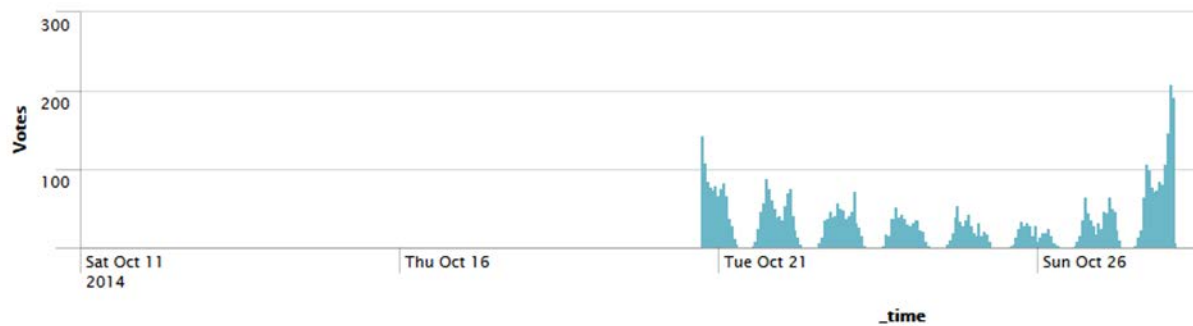
Recently released data from polling firm Ekos suggests that a growing number of Canadians support the use of internet voting in Federal elections. According to the data, 57% of Canadians would vote online if it was offered in the next federal election. That number is up from 49% who answered affirmatively to the same question in 2009. Internet voting is already widely used in the municipal sector with 97 different municipalities using it in the 2014 election and it is well over 200 municipalities reporting they intend to use this method in the 2018 election.

Communications remain a vital component for the successful administration of the upcoming election for the candidates, electors and third-party advertisers. The type of voting method and amended legislation are key elements to be communicated to the public.

Results from the City of Kenora's first vote by internet/telephone

2014 Election Results	
<b>Total Electors</b>	<b>11,208</b>
<b>Total # votes</b>	<b>5,753</b>
<b>Participation</b>	<b>51.3%</b>
<b>Total # Internet</b>	<b>4,847</b>
<b>% Internet voting</b>	<b>84.3%</b>
<b>Total # Telephone</b>	<b>906</b>
<b>% Telephone</b>	<b>15.7%</b>

Votes per hour



2014 Election results showed a slight decrease in voter turnout from the 2010 election to the 2014 election from 58.71% to 51.3%

During the first election that the City of Kenora used alternative voting method, the City partnered with 47 municipalities and the University of Toronto, Munk School of Global Affairs to conduct a survey on internet voting. Working together, we gathered the most data available on the topic of internet voting than any other study to date. A copy of the specific results to Kenora is attached to this report.

The option of voting by Internet was made available to approximately 2.4 million electors in the 2014 election or about one quarter of the provincial electorate. Worldwide, the 2014 Ontario municipal election was the largest deployment of Internet voting in local elections to date and represents a significant shift toward electoral modernization at the municipal level in Canada. Despite Canadian municipalities' widespread use of online voting technologies, and the international importance of Ontario communities as the biggest adopter of the alternative voting method, there has not been much examination of how Internet ballots impact these elections. In an effort to better understand how Internet voting affects the election process, stakeholders – voters, candidates, and election administration – were surveyed in the October 2014 Ontario municipal elections to learn some of the ways in which Internet voting might be changing things, for better or worse. Specifically, between October 2, 2014 and November 21, 2014 the following four groups were surveyed: (1) Internet voters, (2) Paper ballot voters, (3) Candidates, and (4) Election administrators involved in the planning and execution of the election.

Generally municipalities have been pleased with the outcomes and effects of Internet voting. Only two of the municipalities that have introduced Internet voting since 2003 stopped using it in a subsequent election and one of those adopted it again in 2014.1 Ontario communities that have not yet adopted the voting technology have not proceeded for a variety of reasons such as a lack of political will from municipal councils, insufficient bureaucratic backing, financial constraints or inadequate resources required to support the change, concerns about security and fraud, hesitation to adopt the technology too quickly without first learning from municipalities that have used it, and a reluctance to modernize.

The results of this study strengthen our understanding of how the use of Internet voting in local Ontario elections impacts stakeholders and teach us about their attitudes and opinions of the technology. Overall, this study finds strong support for Internet voting among voters, candidates, and election administrators in Ontario. In addition to high levels of satisfaction among all three groups, voters and local government administrators say they would like to see online ballots offered in elections at all levels of Canadian government.

When it comes to the effects of Internet voting, commonalities between Internet voters, candidates and election administration include perceptions of improved electoral accessibility and convenience. Convenience, in particular, is the biggest motivation for voters (both Internet and paper) and is identified as a benefit by electoral administrators. All three groups clearly communicate that Internet voting makes the voting process 'easier' and adds efficiencies to the election process more generally.

Comments suggest Internet voting delivers improvements in voter turnout. While in some cases the deployment of Internet voting is accompanied by increases in voter participation, it is more likely this observation is a reflection of changes in turnout patterns brought about by Internet voting, particularly when it is offered in the advance portion of an election only. It is likely this is what many stakeholders (e.g. candidates) observed as opposed to increases in overall turnout. This report cannot make a determination as to whether Internet voting delivers increases in turnout as there are many contextual factors that impact the number of electors who turn out, such as the salience of election issues, closeness of the race, acclamations, and other factors. Certainly Internet voting seems to attract those who already identify as committed voters and therefore are likely to vote anyway. For a small group of reported non-voters, however, the option of Internet voting seems to be sufficiently motivating to engage them in the voting process. Internet ballots are also the preferred remote voting method for those who are unable to make it to a physical poll location.

In the region, Red Lake, Fort Frances and Dryden Councils have all made the decision to maintain the first-past-the post election type utilizing telephone and internet voting for their 2018 elections. In Sioux Lookout, Council will make their decision in April.

Overall Internet voting receives positive reviews from the election stakeholders surveyed here and is embraced as a welcome addition to traditional election processes and I recommend we continue with this alternative voting method for the 2018 election.

**Budget:** There is no budget impact in the 2017 operating budget, however, RFP's and contracts will begin in 2017 to secure service providers for the 2018 municipal election

**Risk Analysis:**

There is a certain level of risk with any election type and the likelihood of an unforeseen circumstance may occur. Risk is mitigated to every extent no matter the election type selected and part of the requirement in the Municipal Elections Act is a requirement for the Clerk to develop emergency plans for each election. This is a treatment plan which outlines the steps should something take place outside the election platform plan. I would suggest there is a moderate risk (3) to the election process.

**Communication Plan/Notice By-law Requirements:** Bylaw required for alternative voting method

**Strategic Plan or other Guiding Document:**

The Municipal Elections Act, 1996

Lake of the Woods  
**KENORA**



NORTH AMERICA'S  
*Premier*  
BOATING DESTINATION

# 2018 Municipal Election

## Ranked Ballot Option Presentation

# Background re Ranked Ballots

- The Municipal Elections Act, 1996, as amended, provides municipalities with the option to use ranked ballots starting with the regular election in 2018
- Ontario Regulation 310/16 authorizes ranked ballot elections in Ontario for those municipalities that choose this option



# Ranked Ballot Regulations

Ontario Regulation 310/16:

Authorizes ranked ballot elections and sets out conditions, limitations and procedural requirements for municipalities

Sets out the rules governing ballots, voting procedures, the counting of votes, recounts and reporting results

A. To vote, fill in the OVAL ○ to the right of the candidate of your choice like this ● .

B. If you wrongly mark, tear or spoil the ballot, return it and get another.

- Rank candidates in order of preference.
- Fill in the ① next to your first choice.  
Fill in the ② next to your second choice.  
Fill in the ③ next to your third choice.
- Do not fill in more than one oval per candidate. Do not fill in more than one oval per column.
- Ranking a 2nd, 3rd, etc. choice candidate will not hurt your first choice candidate.

	1st Choice	2nd Choice	3rd Choice
Candidate 1	①	②	③
Candidate 2	①	②	③
Candidate 3	①	②	③

# Council's Considerations

Before passing a bylaw, Council must give consideration to:

- ✓ The public interest;
- ✓ The costs to the municipality of conducting the election;
- ✓ The availability of technology, such as voting equipment and vote counting equipment and software, for conducting the elections; and
- ✓ Administrative practices and procedures that would be required to conduct the elections





# Key Election Dates for Ranked Ballots:

Deadline to pass a bylaw for ranked ballots would be May 1 in the year before the election (May 1, 2017)

Deadline to pass bylaws for alternative voting and vote counting is May 1 in the year before the election (May 1, 2017)

Deadline for Clerk's procedures relating to alternative voting/vote counting is December 31 in the year before the election. (December 31, 2017)

# What is a first-past-the post election?

These types of ballot elections are held in accordance with the following rules:

1. Voters vote for their preferred candidate(s) up to the number allowed
2. The counting of votes is carried out in one round, with the candidate(s) with the highest number of votes being elected to office.



# What is a ranked ballot election?

Ranked ballot elections is held in accordance with the following rules:

1. Voters vote by ranking candidates for an office in order of the voter's preference
2. Votes are distributed to candidates based on the rankings marked on the ballots.
3. The counting of votes is carried out in one or more rounds, with at least one candidate being elected or eliminated in each round.

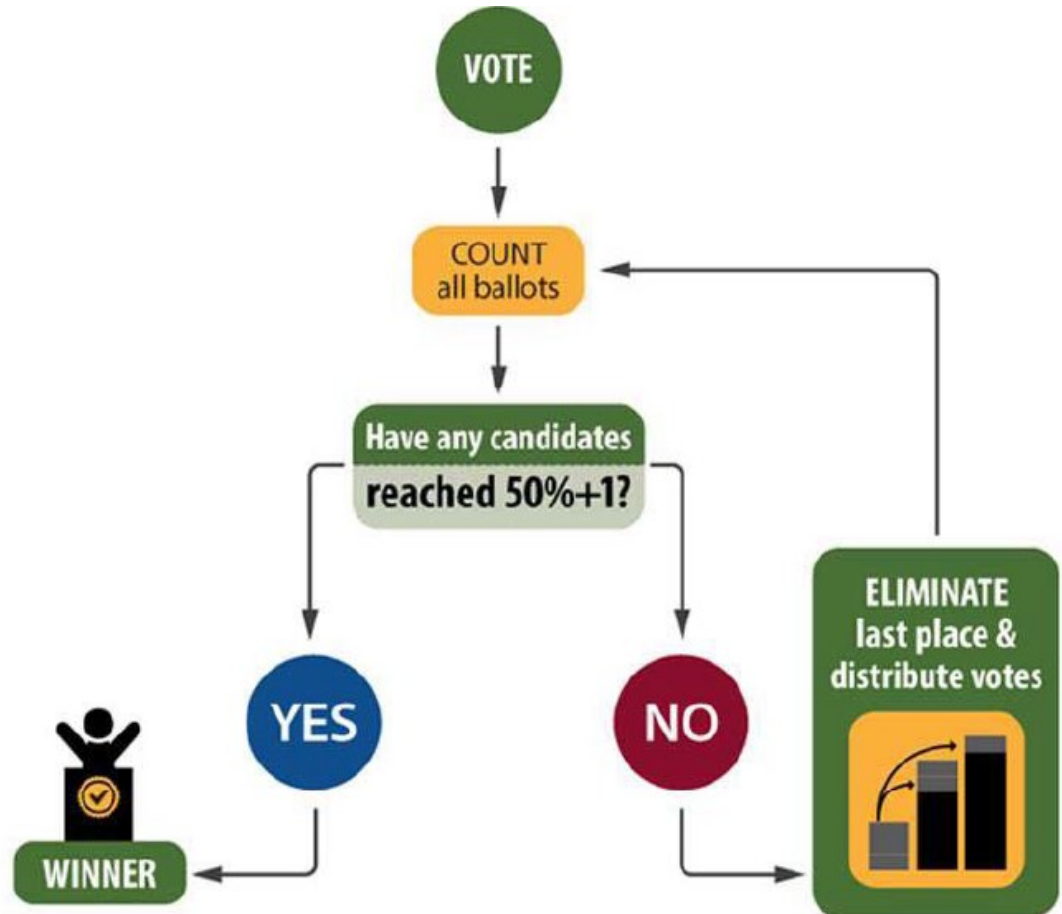
**Ranked ballots have the potential to give voters a greater say in who is elected and increase voter engagement.**

There are 2 types of ranked ballot elections: single and multi-member



# Single Member Ranked Ballot Election

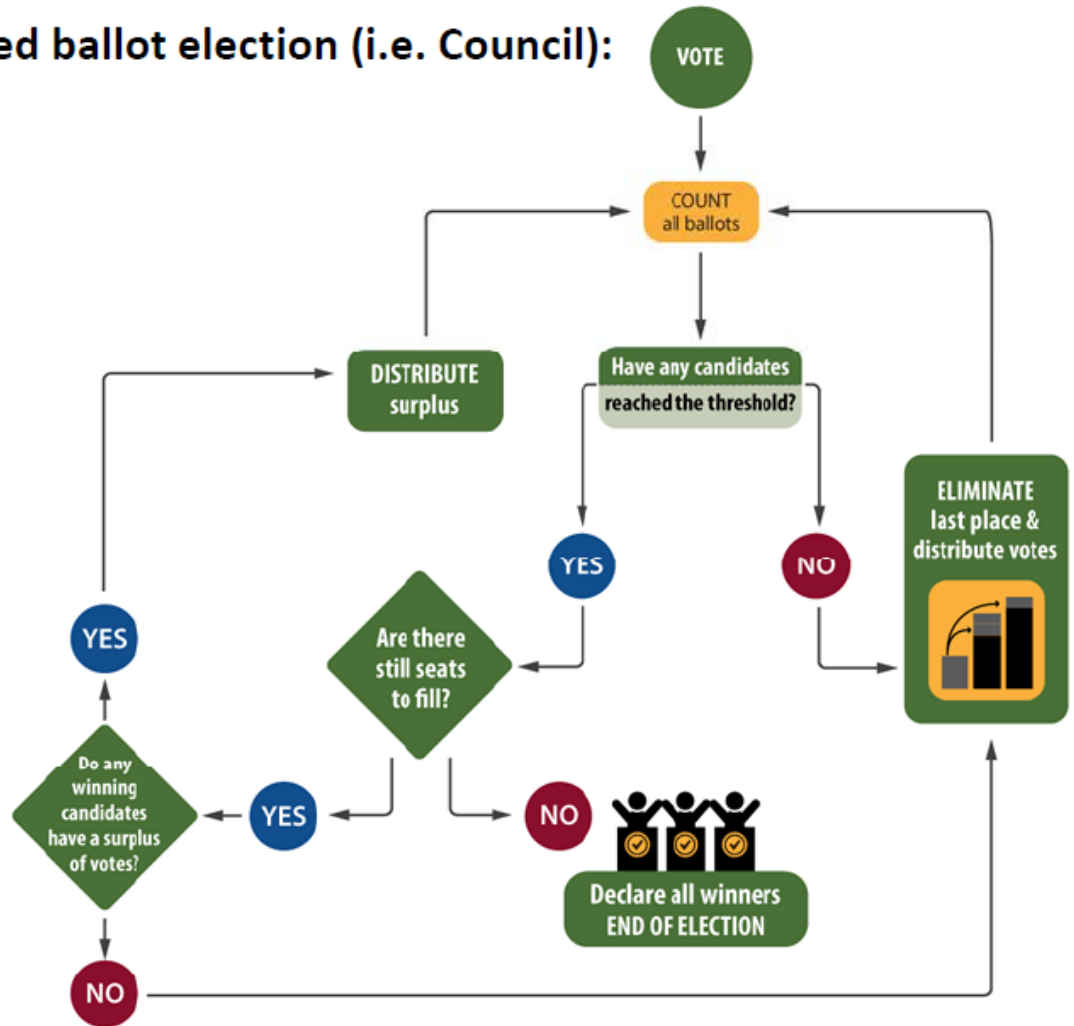
For a **single-member ranked ballot election** (ie: Mayor), the **threshold to be elected is 50% plus one** of the total number of votes received for the contest



# Multi Member Ranked Ballot Election

For a multi-member ranked ballot election (i.e. Council):

Source: AMO



# Public Consultation

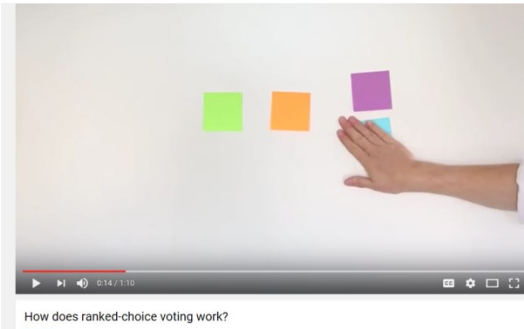
A municipality seriously considering the use of ranked ballots must hold an open house and provide the following information:

- How elections would be conducted, including a description of vote counting;
- Estimated costs;
- Voting/vote-counting equipment;
- Alternative voting methods

At least 15 days  
AFTER the open  
house:

- The municipality must hold a public meeting that allows the public to provide feedback
- Then Council can move forward to make a decision of the use of ranked ballots (April 2017)

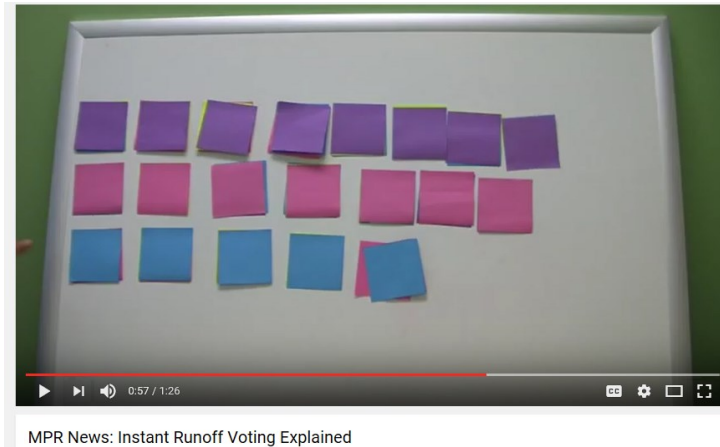
# Examples of how Ranked Balloting works:



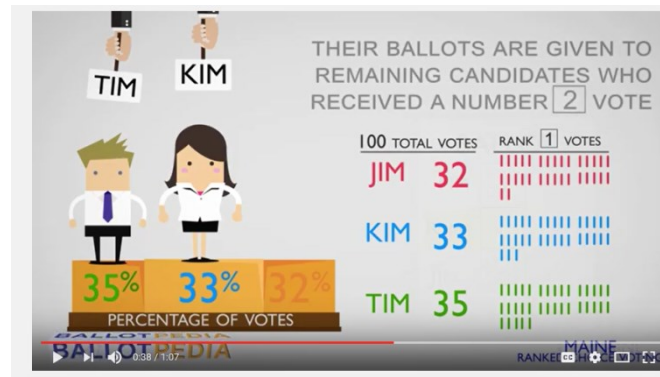
<https://www.youtube.com/watch?v=oHRPMJmzBBw>



<https://www.youtube.com/watch?v=pX1N37rPmHc>



<https://www.youtube.com/watch?v=5SLQXNpzsk>



<https://www.youtube.com/watch?v=5sVpLxGKd3Q>



# Current Ranked Ballot Challenges:

- ✓ There are additional costs, equipment and time for the elector to cast at least two ballots instead of one.  
(School Board elections cannot be done in this method and therefore requires two separate elections)
- ✓ Size and design of the municipal ballot to allow for ranking of multiple candidates especially for the office of Councillor
- ✓ Implementation of a new alternative voting method such as internet/telephone voting and ranked balloting at the same time could cause confusion and require additional staff resources and education to the voter, at increased cost

# Current Ranked Ballot Challenges – con't

- The set-up, testing and use of vote casting and counting technology will be significantly more complex in a ranked ballot election event. Canadian vendors have no or limited experience with ranked ballots, although some have provided tabulators to American elections that used ranked balloting.
- Timelines are short now that the new legislation and regulations has been approved in the fall of 2016 and with several key elections across Canada within a the same time period in the fall of 2018, there is concern, in our sector, about the availability and capacity of voting equipment and vendor staff to support ranked ballot elections.

# Current Ranked Ballot Challenges – con't

- A ranked ballot election with a manual count (to save \$s ) (no tabulators nor internet voting) would be very difficult with significant time and resource required for staff and result in long delays for election results for candidates and the public.
- Accessibility is a concern as there is some thought that ranked ballots are a barrier to persons with disabilities and language barriers
- Result reporting will be much longer to report to the public and managing the expectations of such
- Education and communication campaigns are needed and therefore putting an additional strain to elections budgets

# Current Ranked Ballot Challenges – con't

- This is a new method of voting in Ontario and at the time writing this report, no small municipality have chose ranked balloting for the 2018 municipal election leaving the Returning Officer with limited access to peers for collaboration of best practices and processes.
- Simply put, it is too new, and let's not be the first municipality to advance ranked balloting in Ontario.

## **City Clerk/Returning Officer Recommendation:**

That Council of the City of Kenora continue with the existing election model for the 2018 City of Kenora municipal election using internet/telephone voting methods; and further

That the City Clerk/Returning Officer is directed to monitor the transition of municipal and other election events using the ranked balloting system for a recommendation in the 2022 Municipal Election.



## **Internet Voting Project Mini-Summary for the City of Kenora**

### **DETAILS OF THE 2014 MUNICIPAL ELECTION:**

**Online Voting Period:** October 22nd to 27th

**Type of Voting System Used:** 1-Step (online registration not required)

**Voter Turnout:** 50.78%

**Number of Votes Cast Online:** 4,847

**Number of Attempted Internet Voter Surveys:** 872

**Participation Rate in the Internet Voter Survey:** 17.9%

### **TABLE OF CONTENTS:**

<b>INTERNET VOTER SURVEY SUMMARY .....</b>	<b>1</b>
<b>ELECTION ADMINISTRATOR SURVEY SUMMARY .....</b>	<b>37</b>
<b>CANDIDATE SURVEY SUMMARY .....</b>	<b>62</b>



# Internet Voting Survey

**Filtering on the following values:**

Municipality: 

- Kenora

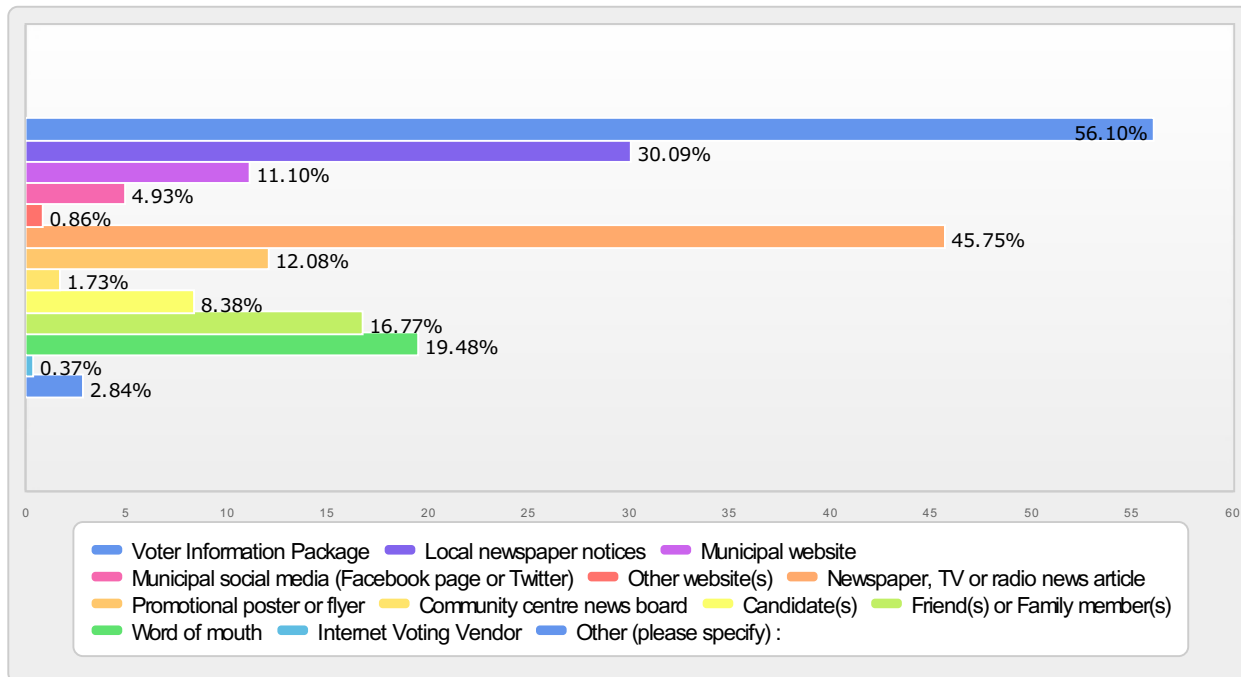
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**Total Number of Completes**

872

**Q1 - How did you hear about Internet voting for the 2014 Municipal Election?**

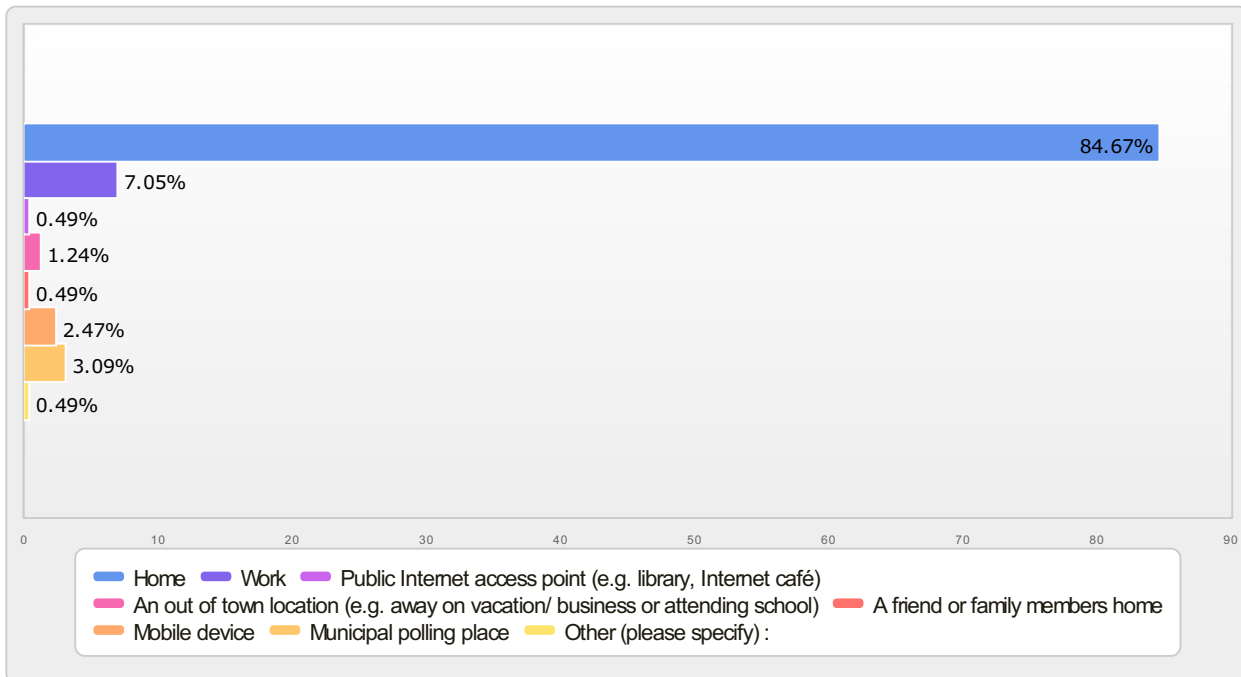
Voter Information Package	455	56.10%
Local newspaper notices	244	30.09%
Municipal website	90	11.10%
Municipal social media (Facebook page or Twitter)	40	4.93%
Other website(s)	7	0.86%
Newspaper, TV or radio news article	371	45.75%
Promotional poster or flyer	98	12.08%
Community centre news board	14	1.73%
Candidate(s)	68	8.38%
Friend(s) or Family member(s)	136	16.77%
Word of mouth	158	19.48%
Internet Voting Vendor	3	0.37%
Other (please specify) :	23	2.84%
<b>Total</b>	<b>811</b>	<b>100.00%</b>





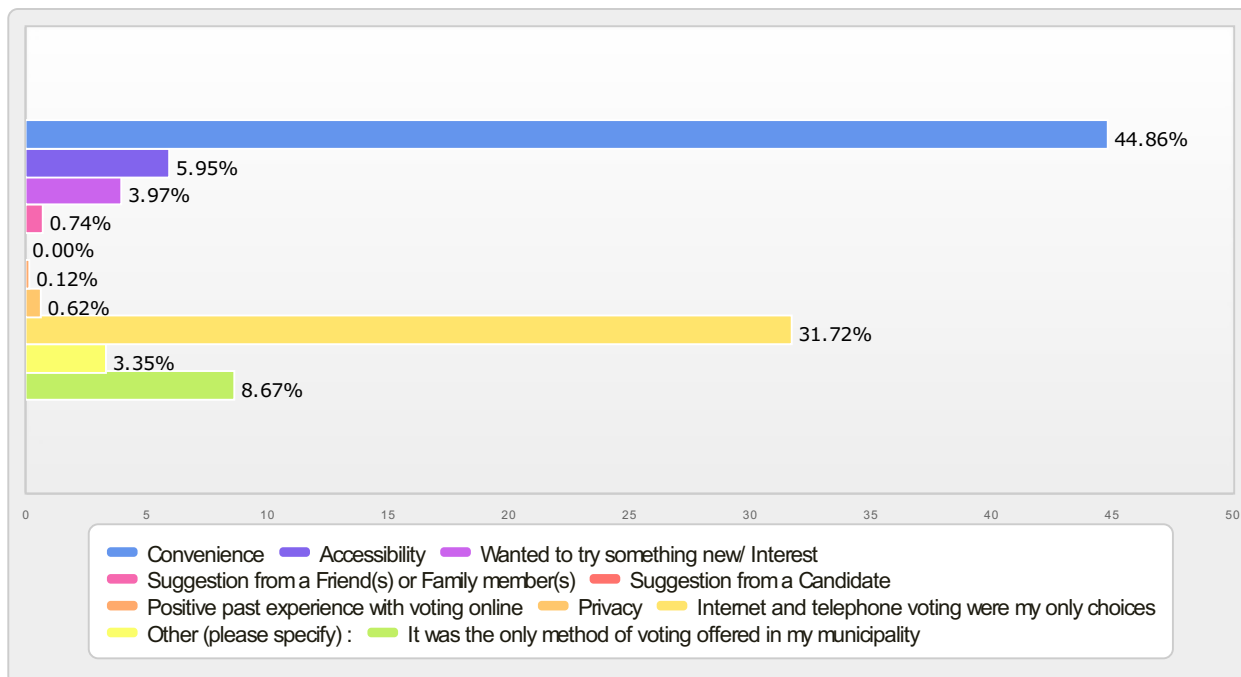
**Q2 - Where did you vote online from?**

Home	685	84.67%
Work	57	7.05%
Public Internet access point (e.g. library, Internet café)	4	0.49%
An out of town location (e.g. away on vacation/ business or attending school)	10	1.24%
A friend or family members home	4	0.49%
Mobile device	20	2.47%
Municipal polling place	25	3.09%
Other (please specify) :	4	0.49%
<b>Total</b>	<b>809</b>	<b>100.00%</b>



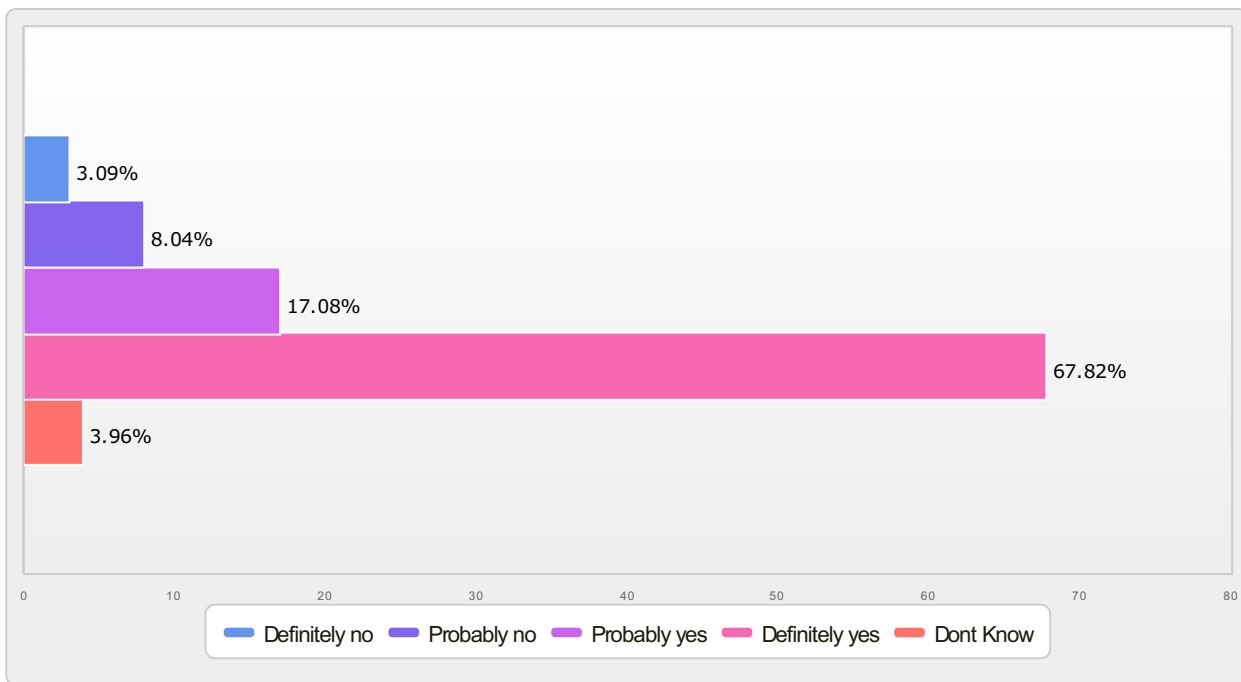
**Q3 - What is the main reason you chose to vote online in the 2014 Municipal Election?**

Convenience	362	44.86%
Accessibility	48	5.95%
Wanted to try something new/ Interest	32	3.97%
Suggestion from a Friend(s) or Family member(s)	6	0.74%
Suggestion from a Candidate	0	0.00%
Positive past experience with voting online	1	0.12%
Privacy	5	0.62%
Internet and telephone voting were my only choices	256	31.72%
Other (please specify) :	27	3.35%
It was the only method of voting offered in my municipality	70	8.67%
<b>Total</b>	<b>807</b>	<b>100.00%</b>



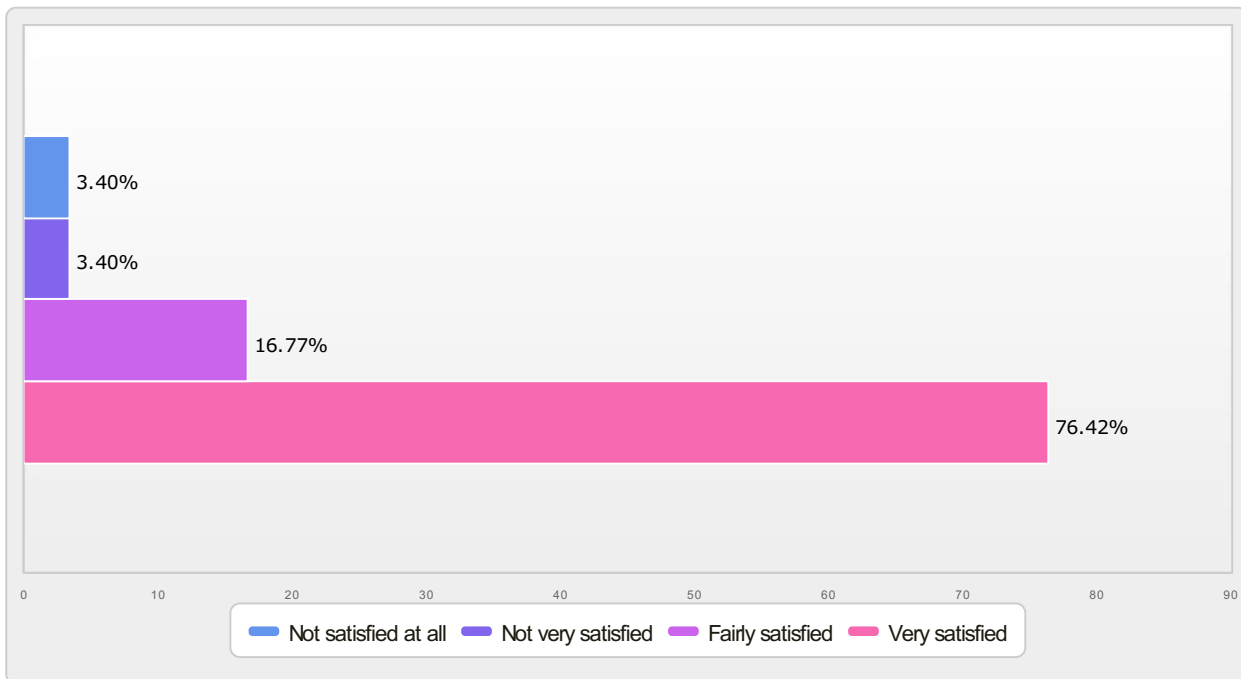
**Q4 - If you didn't have the option to vote online, would you still have voted?**

Definitely no	25	3.09%
Probably no	65	8.04%
Probably yes	138	17.08%
Definitely yes	548	67.82%
Dont Know	32	3.96%
<b>Total</b>	<b>808</b>	<b>100.00%</b>



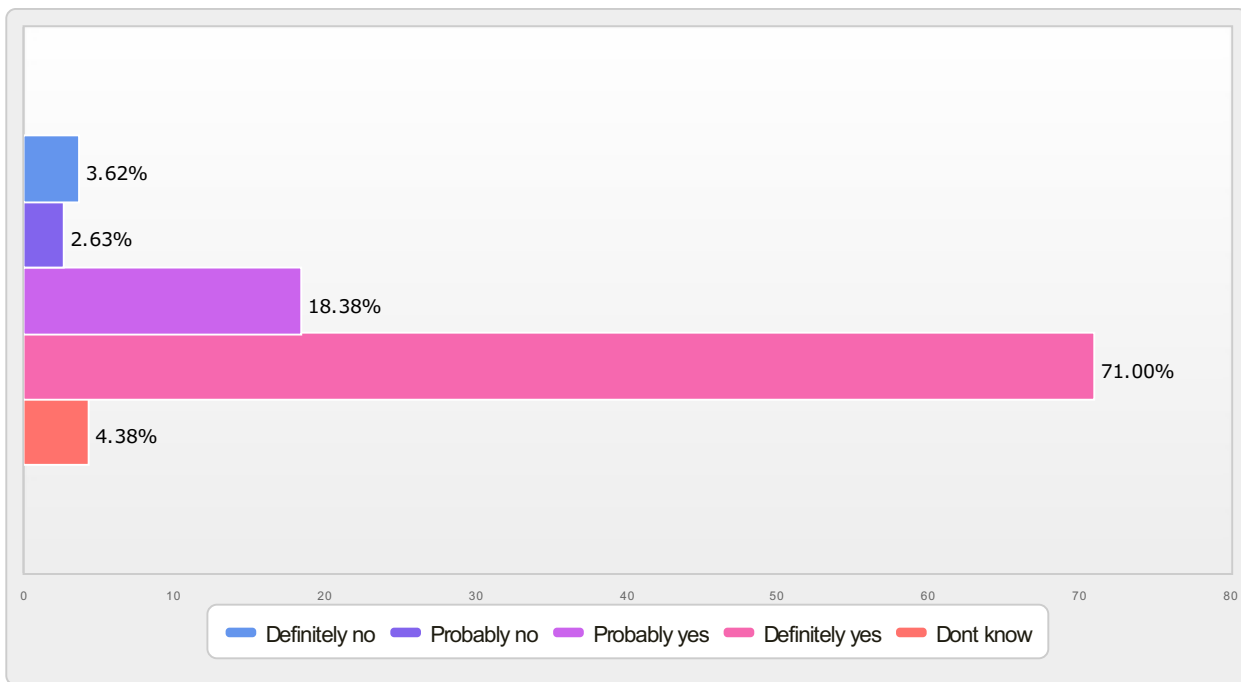
**Q5 - How satisfied were you with the online voting process?**

Not satisfied at all	27	3.40%
Not very satisfied	27	3.40%
Fairly satisfied	133	16.77%
Very satisfied	606	76.42%
<b>Total</b>	<b>793</b>	<b>100.00%</b>



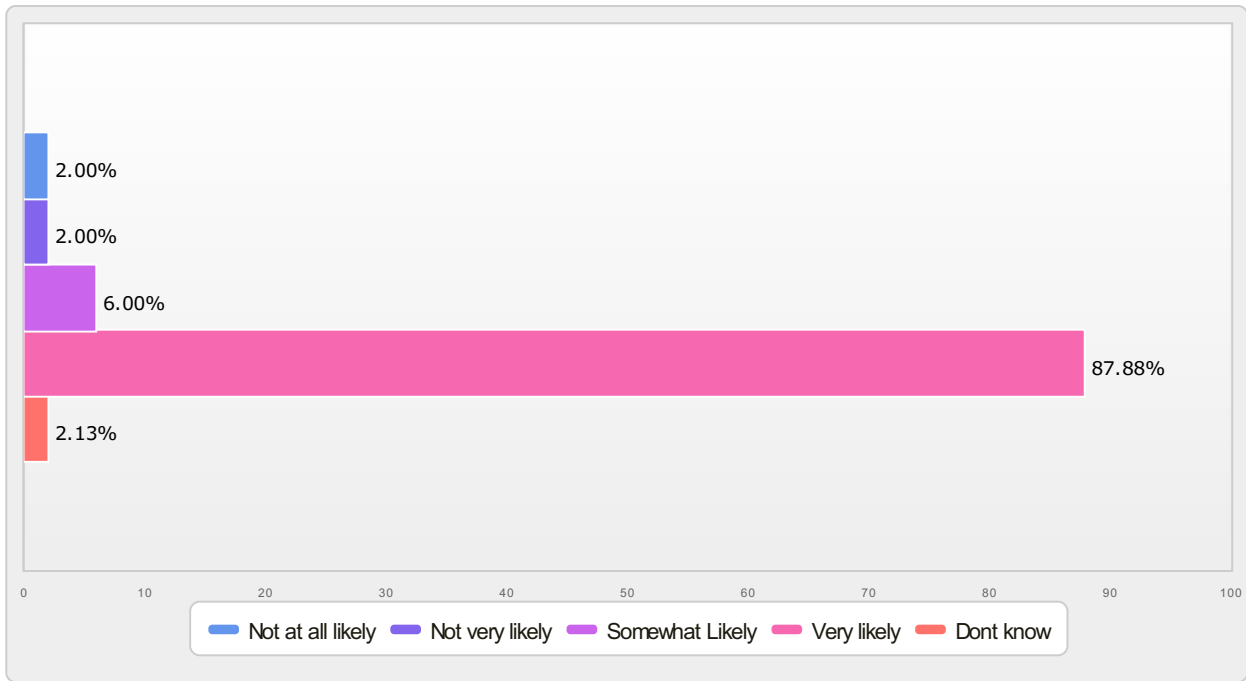
**Q7 - Would you recommend Internet voting to others?**

Definitely no	29	3.63%
Probably no	21	2.63%
Probably yes	147	18.38%
Definitely yes	568	71.00%
Dont know	35	4.38%
<b>Total</b>	<b>800</b>	<b>100.00%</b>



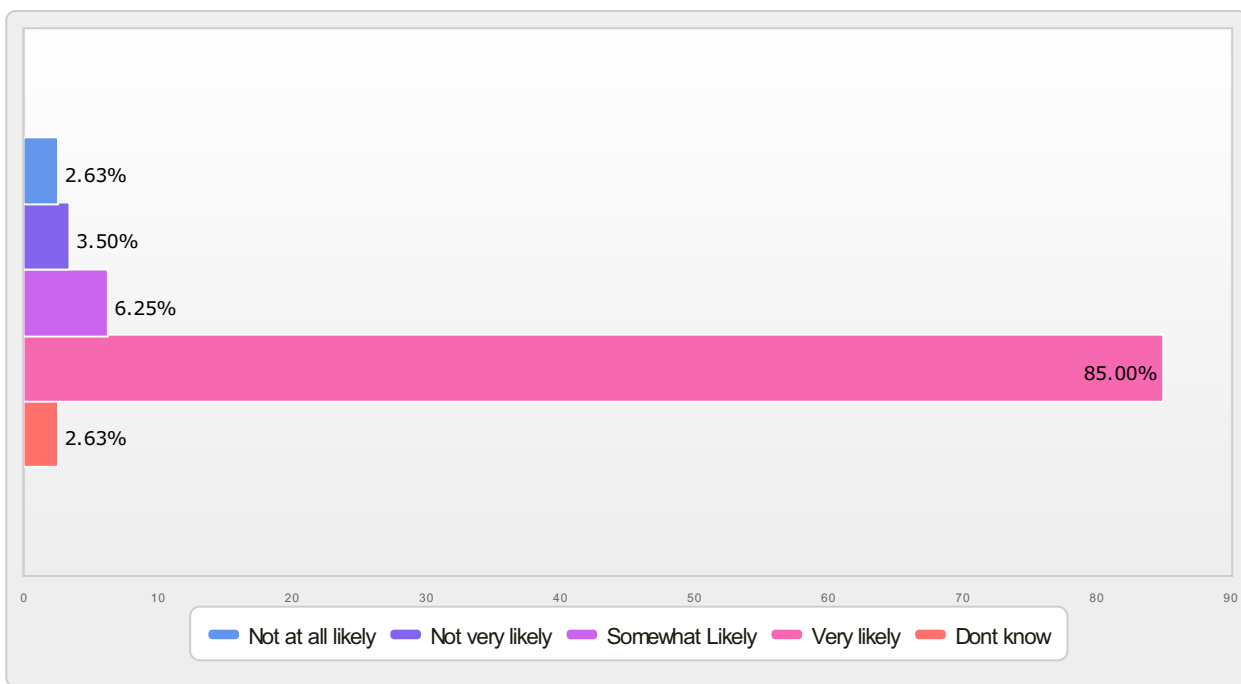
**Q8a - If Internet voting were available in all elections, how likely is it that you would vote online in Future municipal elections?**

Not at all likely	16	2.00%
Not very likely	16	2.00%
Somewhat Likely	48	6.00%
Very likely	703	87.88%
Dont know	17	2.13%
<b>Total</b>	<b>800</b>	<b>100.00%</b>



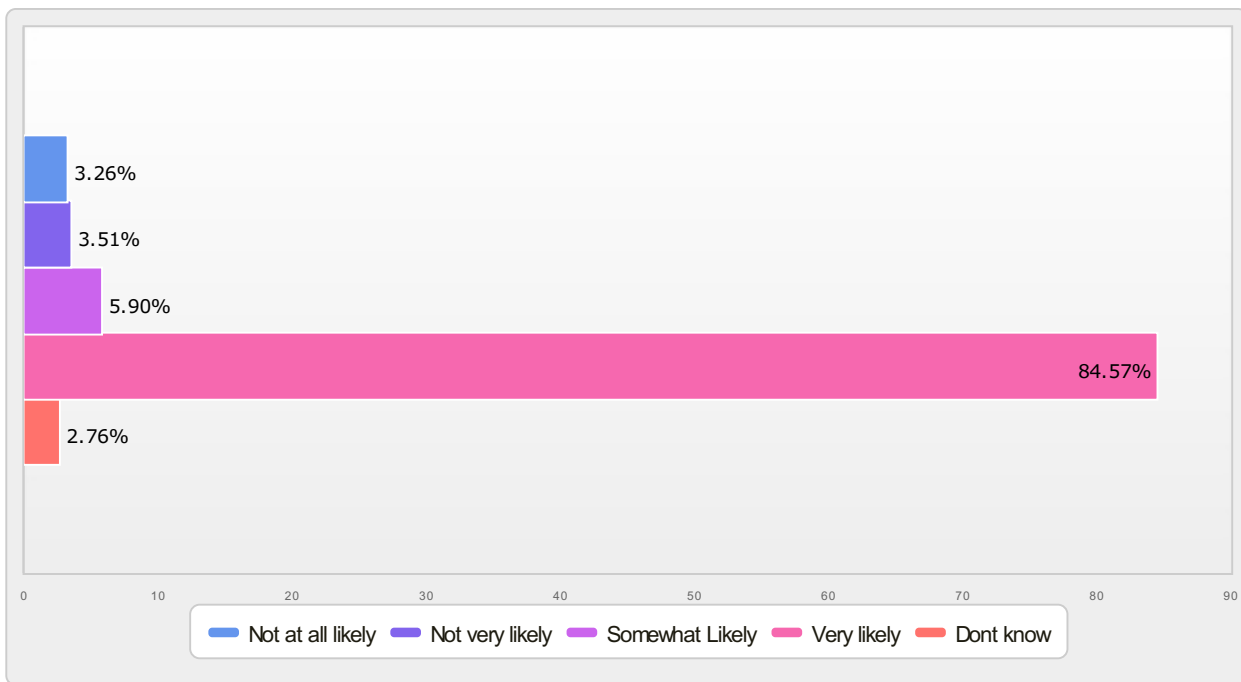
**Q8b - If Internet voting were available in all elections, how likely is it that you would vote online in Provincial elections?**

Not at all likely	21	2.63%
Not very likely	28	3.50%
Somewhat Likely	50	6.25%
Very likely	680	85.00%
Dont know	21	2.63%
<b>Total</b>	<b>800</b>	<b>100.00%</b>



**Q8c - If Internet voting were available in all elections, how likely is it that you would vote online in Federal elections?**

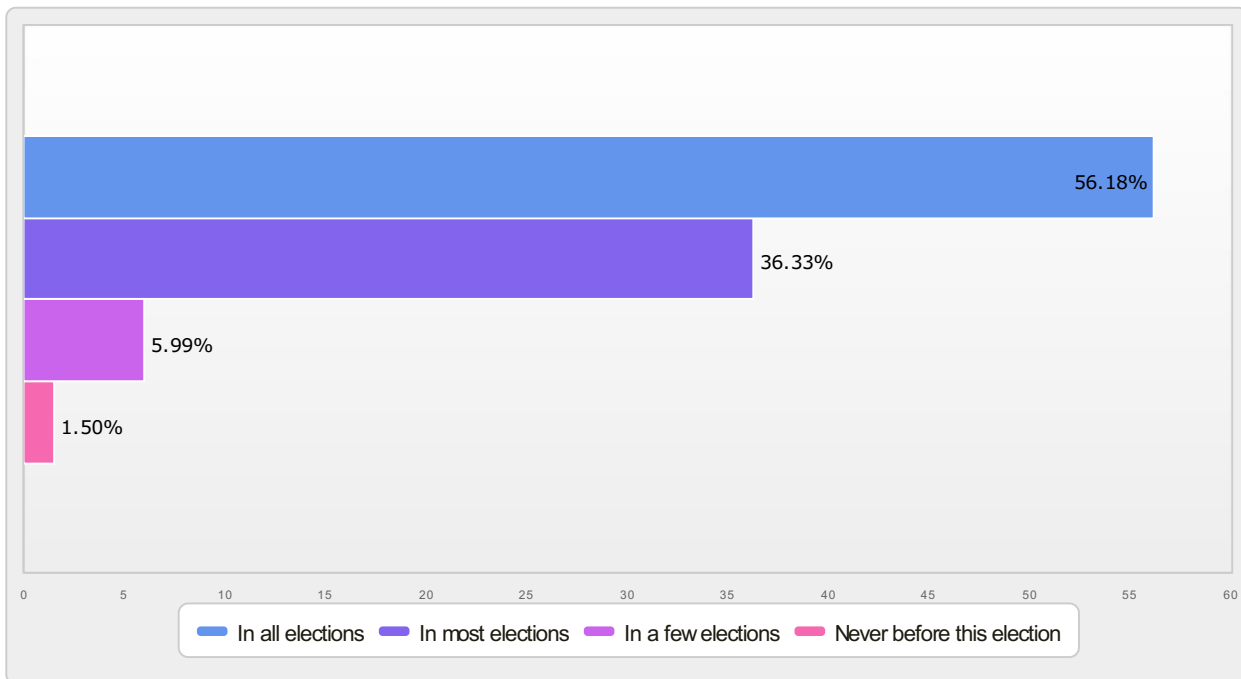
Not at all likely	26	3.26%
Not very likely	28	3.51%
Somewhat Likely	47	5.90%
Very likely	674	84.57%
Dont know	22	2.76%
<b>Total</b>	<b>797</b>	<b>100.00%</b>





**Q9 - Considering elections at all levels of government (municipal, provincial, federal), since you became eligible to vote have you voted...**

In all elections	450	56.18%
In most elections	291	36.33%
In a few elections	48	5.99%
Never before this election	12	1.50%
<b>Total</b>	<b>801</b>	<b>100.00%</b>



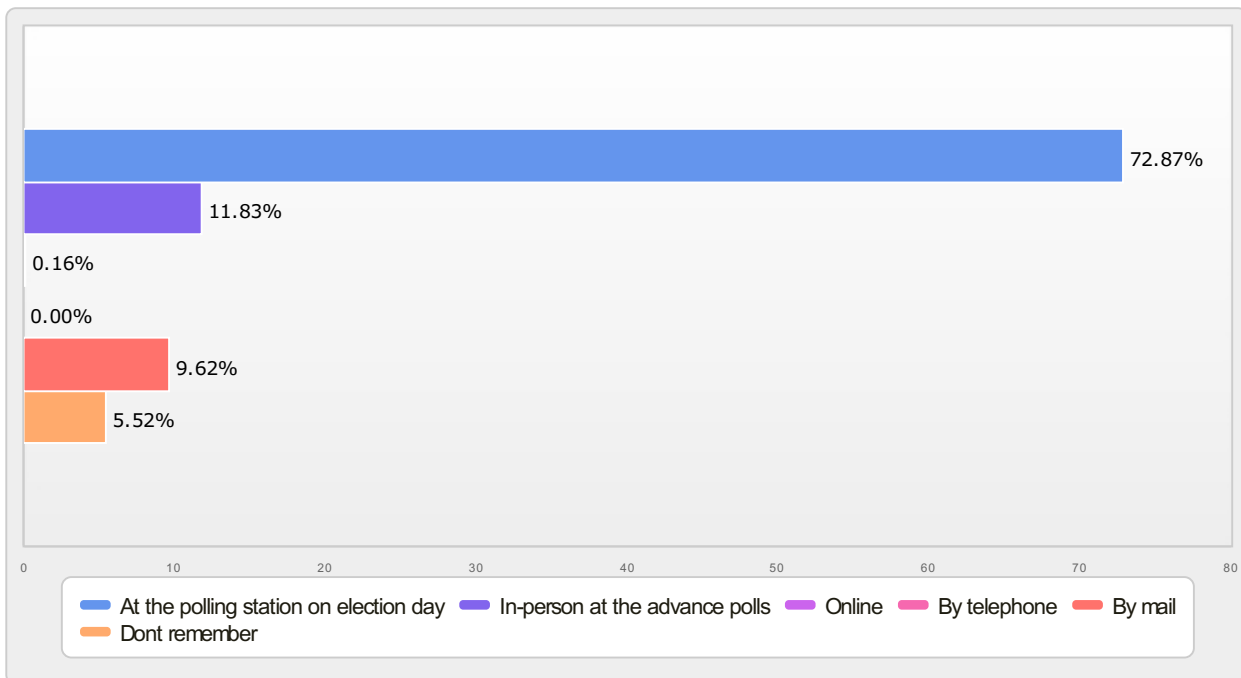
**Q10 - Thinking now of past municipal elections, did you vote in the 2010 Municipal Election?**

Yes	638	80.15%
No	90	11.31%
Not eligible	23	2.89%
Dont remember	45	5.65%
<b>Total</b>	<b>796</b>	<b>100.00%</b>



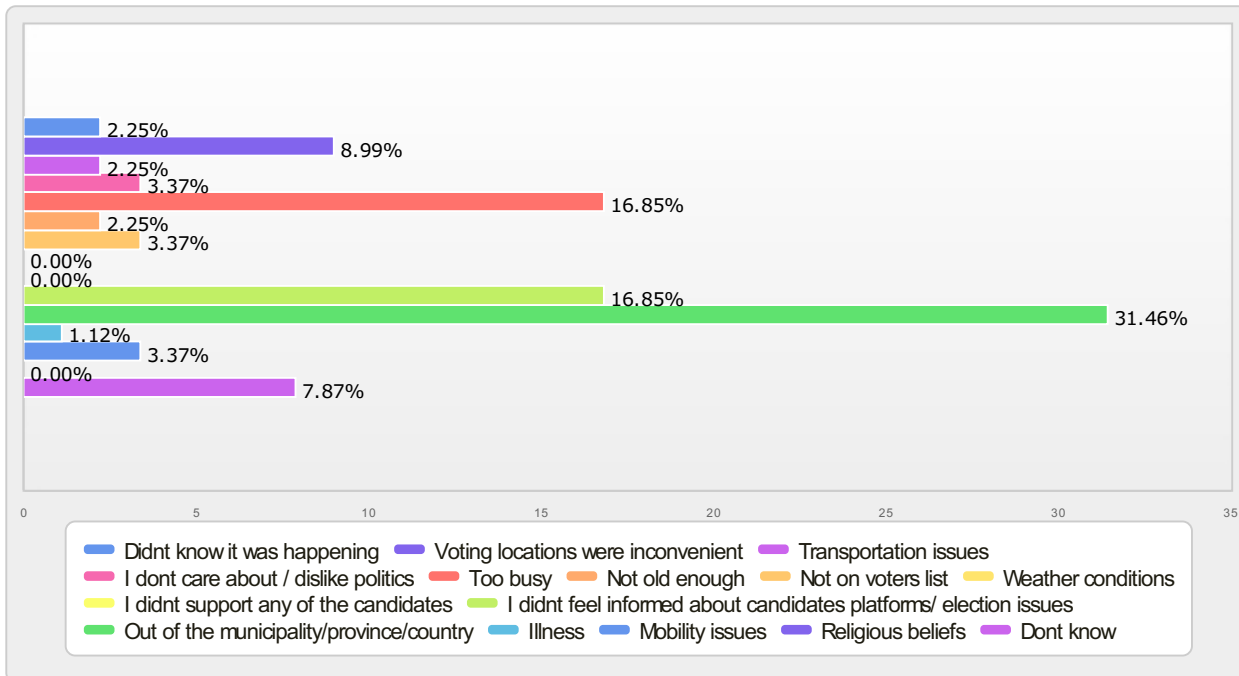
**Q11 - In the 2010 Municipal Election did you vote...**

At the polling station on election day	462	72.87%
In-person at the advance polls	75	11.83%
Online	1	0.16%
By telephone	0	0.00%
By mail	61	9.62%
Dont remember	35	5.52%
<b>Total</b>	<b>634</b>	<b>100.00%</b>



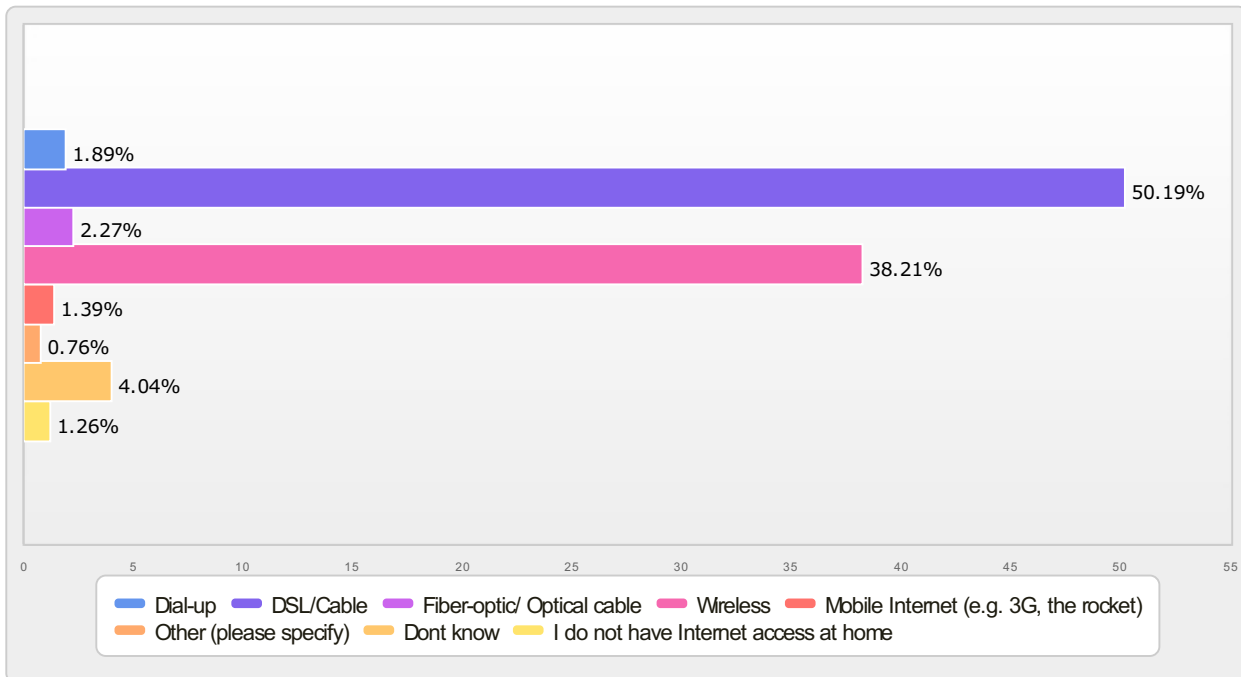
**Q12 - What is the main reason you did not vote in the last municipal election in 2010?**

Didnt know it was happening	2	2.25%
Voting locations were inconvenient	8	8.99%
Transportation issues	2	2.25%
I dont care about / dislike politics	3	3.37%
Too busy	15	16.85%
Not old enough	2	2.25%
Not on voters list	3	3.37%
Weather conditions	0	0.00%
I didnt support any of the candidates	0	0.00%
I didnt feel informed about candidates platforms/ election issues	15	16.85%
Out of the municipality/province/country	28	31.46%
Illness	1	1.12%
Mobility issues	3	3.37%
Religious beliefs	0	0.00%
Dont know	7	7.87%
<b>Total</b>	<b>89</b>	<b>100.00%</b>



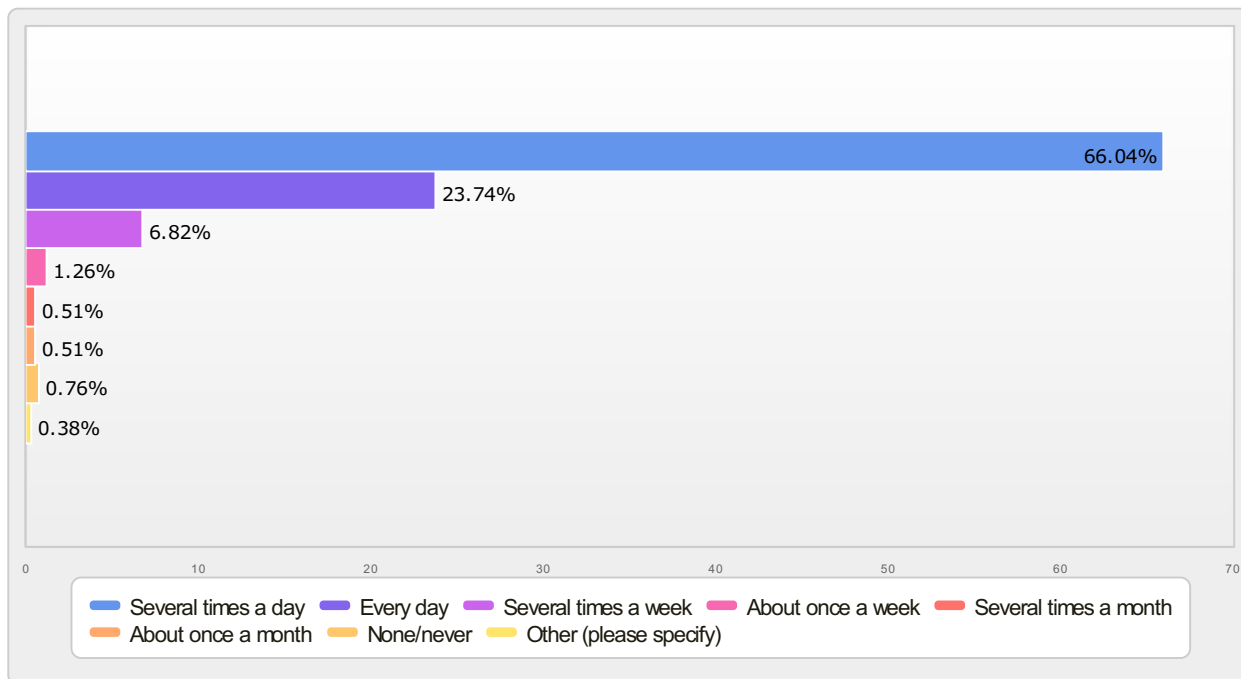
**Q13 - What type of Internet connection do you have at home?**

Dial-up	15	1.89%
DSL/Cable	398	50.19%
Fiber-optic/ Optical cable	18	2.27%
Wireless	303	38.21%
Mobile Internet (e.g. 3G, the rocket)	11	1.39%
Other (please specify)	6	0.76%
Dont know	32	4.04%
I do not have Internet access at home	10	1.26%
<b>Total</b>	<b>793</b>	<b>100.00%</b>



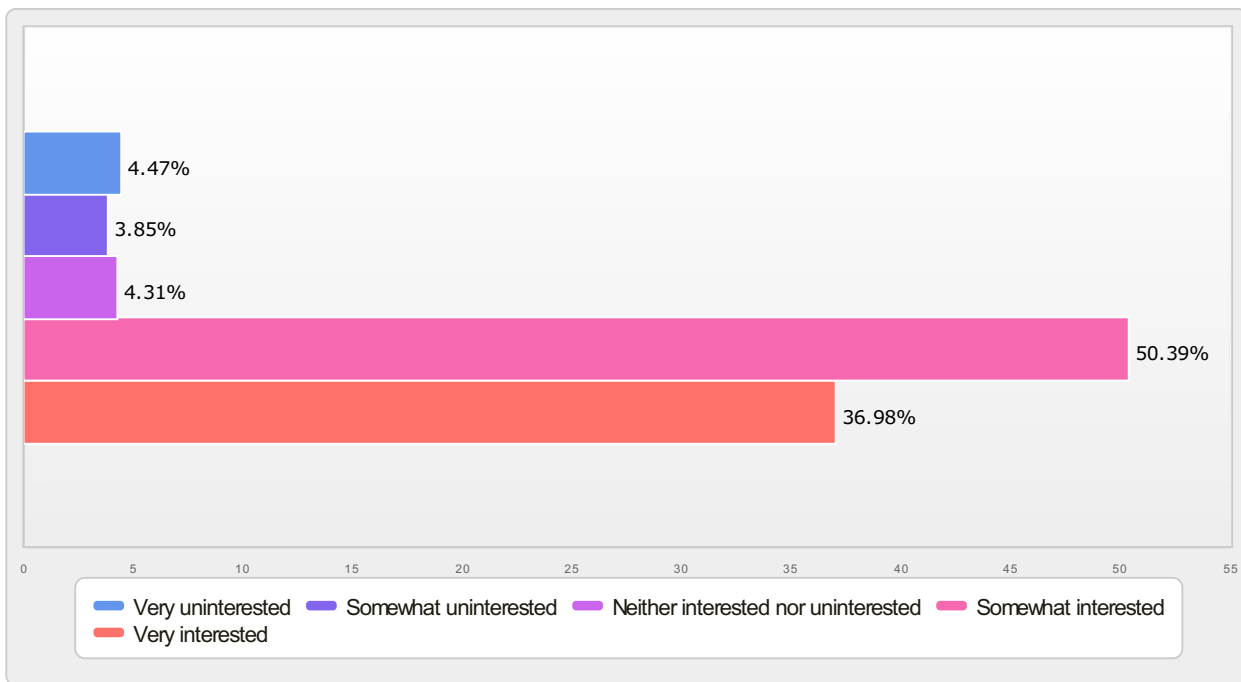
**Q14 - How often do you access the Internet?**

Several times a day	523	66.04%
Every day	188	23.74%
Several times a week	54	6.82%
About once a week	10	1.26%
Several times a month	4	0.51%
About once a month	4	0.51%
None/never	6	0.76%
Other (please specify)	3	0.38%
<b>Total</b>	<b>792</b>	<b>100.00%</b>



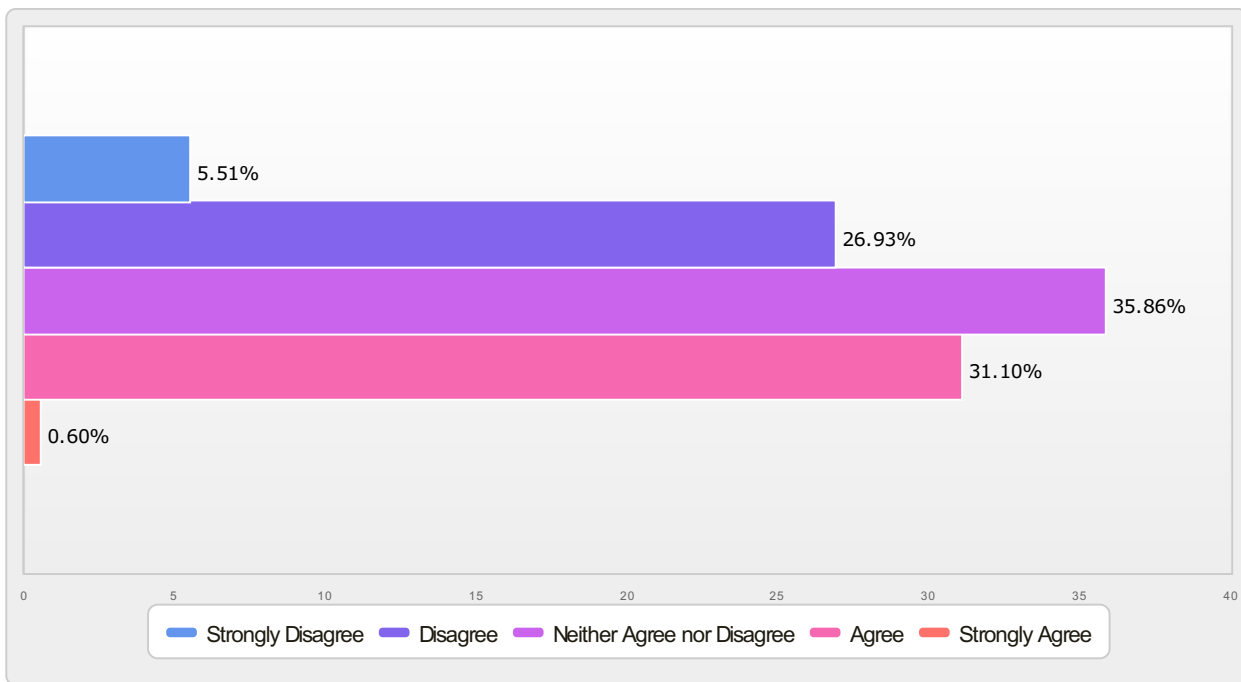
**Q15 - Generally speaking, how interested are you about what's going on in government and politics?**

Very uninterested	29	4.47%
Somewhat uninterested	25	3.85%
Neither interested nor uninterested	28	4.31%
Somewhat interested	327	50.39%
Very interested	240	36.98%
<b>Total</b>	<b>649</b>	<b>100.00%</b>



**Q16a - Most of the time we can trust people in government to do what is right.**

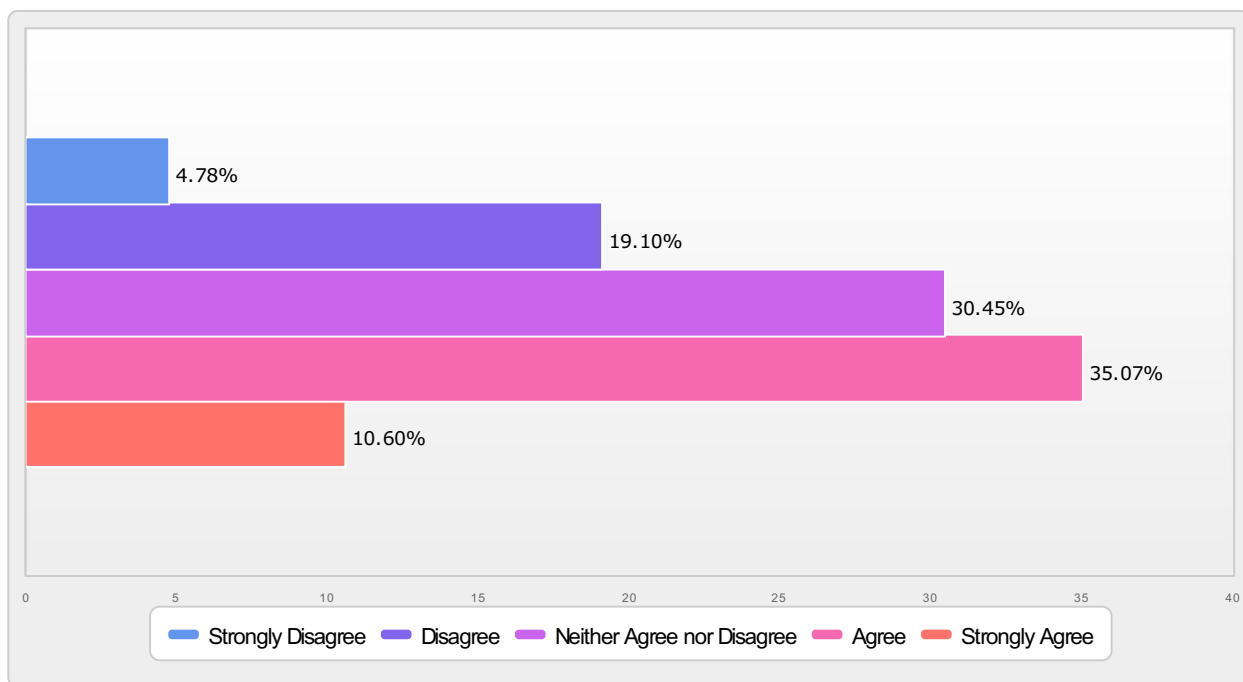
Strongly Disagree	37	5.51%
Disagree	181	26.93%
Neither Agree nor Disagree	241	35.86%
Agree	209	31.10%
Strongly Agree	4	0.60%
<b>Total</b>	<b>672</b>	<b>100.00%</b>





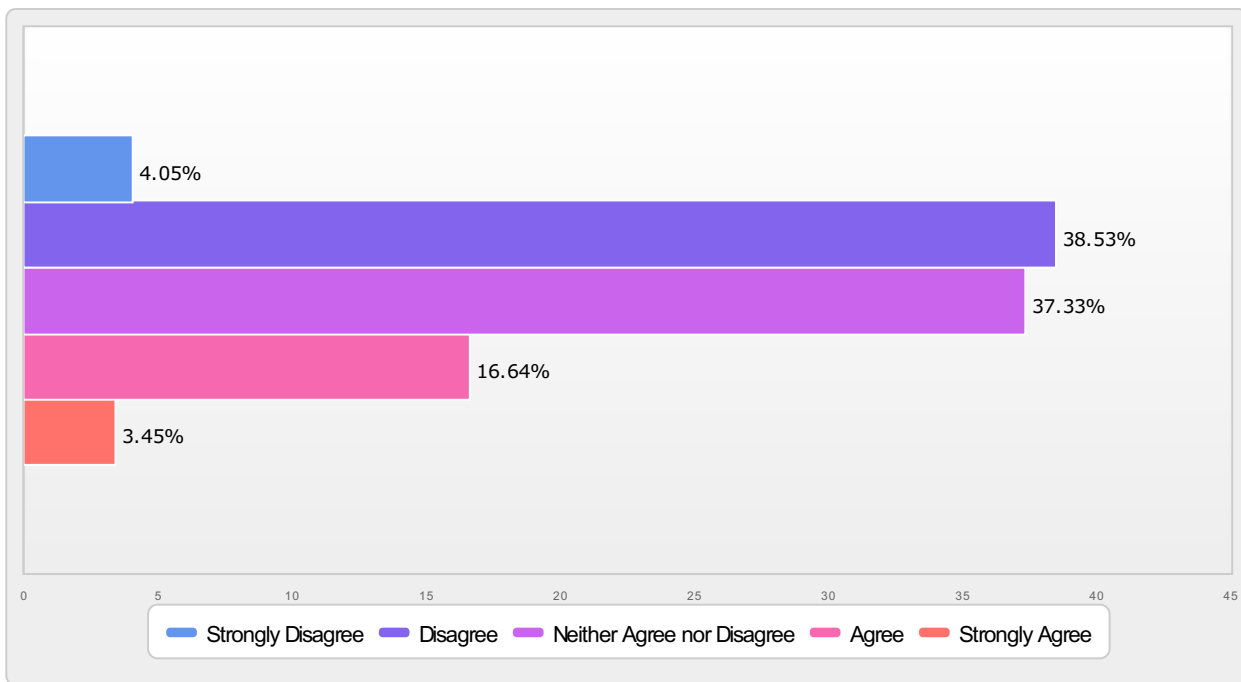
**Q16b - I have a greater duty to vote in elections where there are major differences between the candidates.**

Strongly Disagree	32	4.78%
Disagree	128	19.10%
Neither Agree nor Disagree	204	30.45%
Agree	235	35.07%
Strongly Agree	71	10.60%
<b>Total</b>	<b>670</b>	<b>100.00%</b>



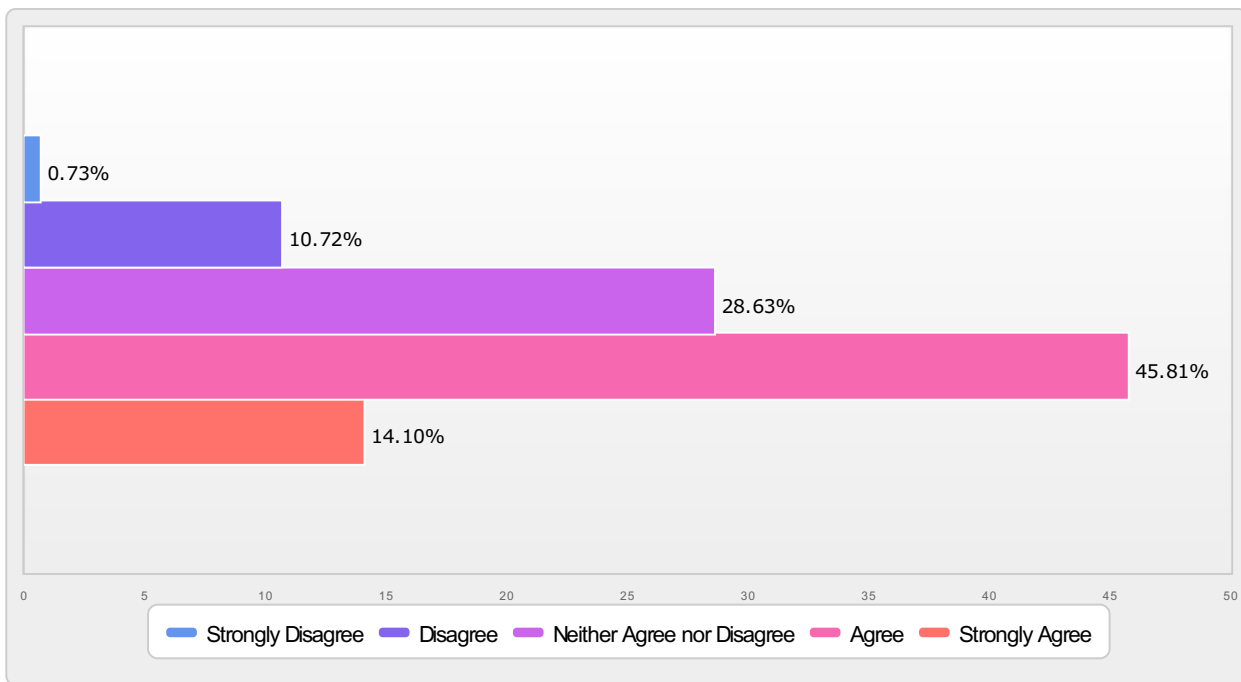
**Q16c - Most politicians are in politics only for what they can get out of it personally.**

Strongly Disagree	27	4.05%
Disagree	257	38.53%
Neither Agree nor Disagree	249	37.33%
Agree	111	16.64%
Strongly Agree	23	3.45%
<b>Total</b>	<b>667</b>	<b>100.00%</b>



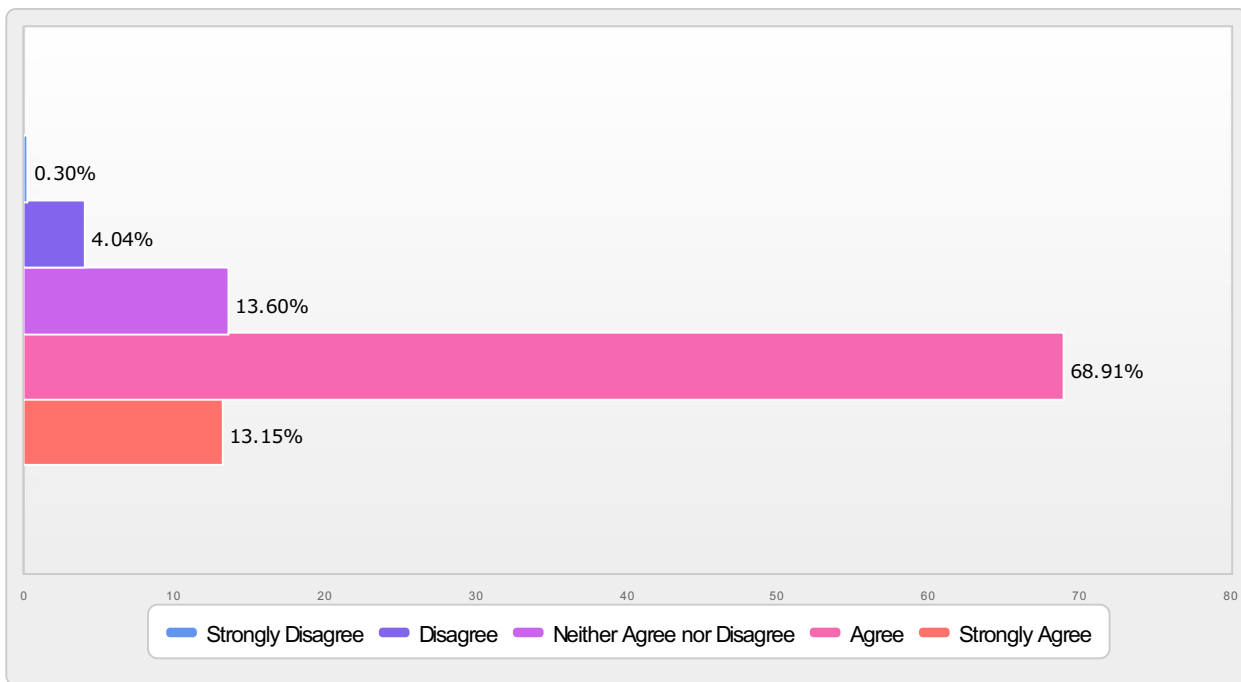
**Q16d - I consider myself well-qualified to participate in politics.**

Strongly Disagree	5	0.73%
Disagree	73	10.72%
Neither Agree nor Disagree	195	28.63%
Agree	312	45.81%
Strongly Agree	96	14.10%
<b>Total</b>	<b>681</b>	<b>100.00%</b>



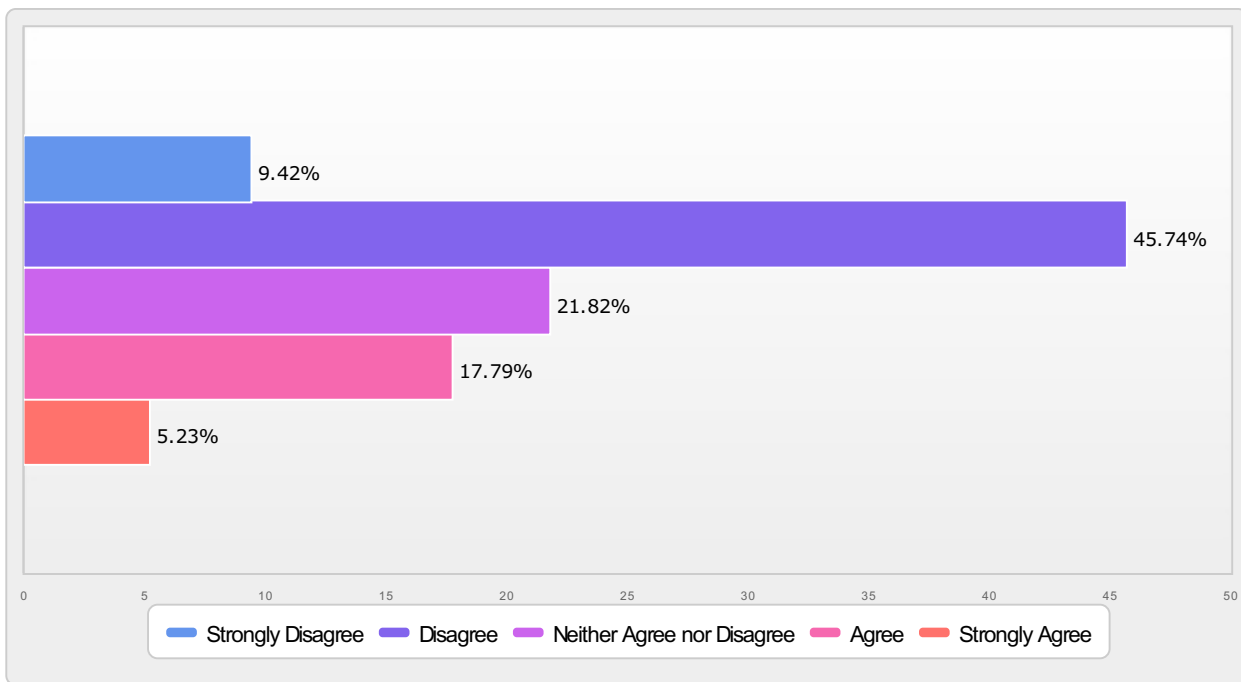
**Q16e - I feel I have a pretty good understanding of the important political issues facing my municipality.**

Strongly Disagree	2	0.30%
Disagree	27	4.04%
Neither Agree nor Disagree	91	13.60%
Agree	461	68.91%
Strongly Agree	88	13.15%
<b>Total</b>	<b>669</b>	<b>100.00%</b>



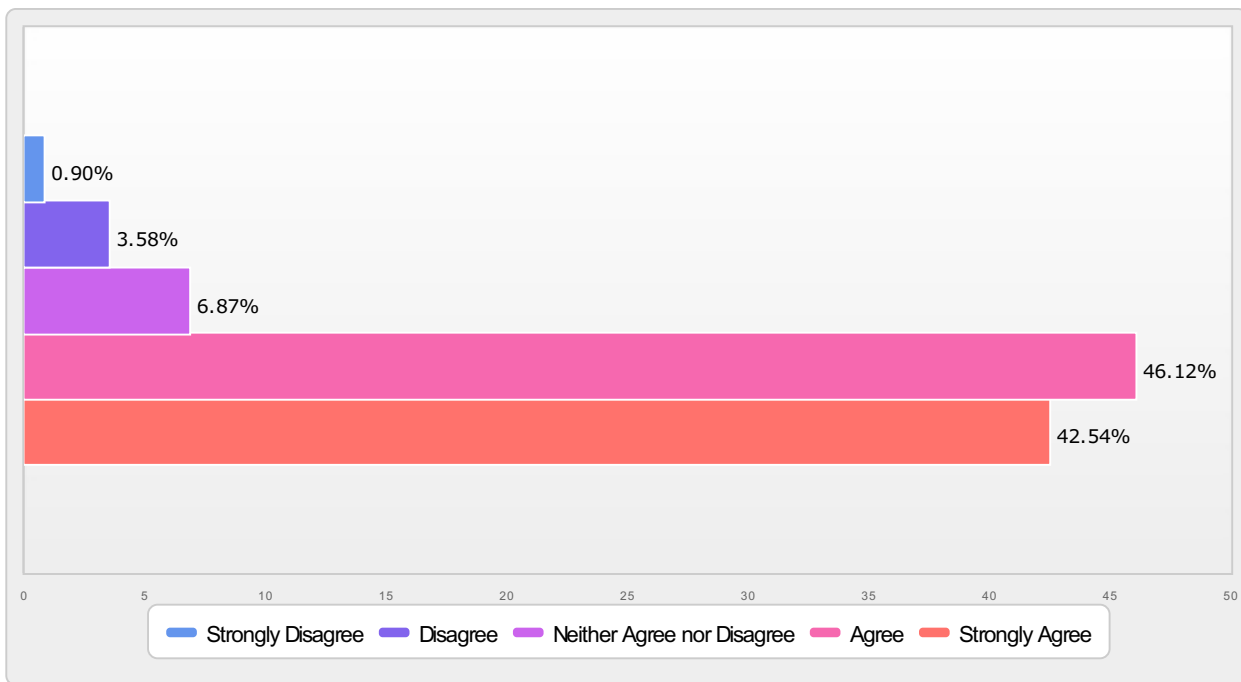
**Q16f - People like me don't have any say about what the government does.**

Strongly Disagree	63	9.42%
Disagree	306	45.74%
Neither Agree nor Disagree	146	21.82%
Agree	119	17.79%
Strongly Agree	35	5.23%
<b>Total</b>	<b>669</b>	<b>100.00%</b>



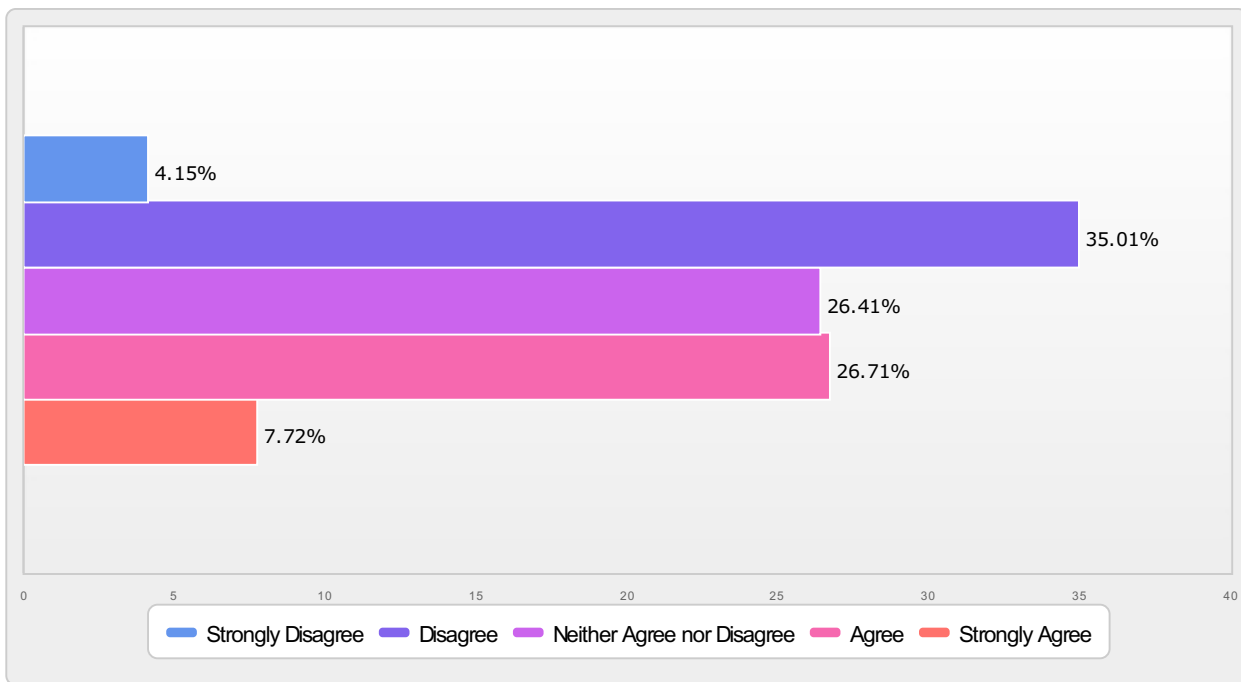
**Q16g - I would be seriously neglecting my duty as a citizen if I didn't vote.**

Strongly Disagree	6	0.90%
Disagree	24	3.58%
Neither Agree nor Disagree	46	6.87%
Agree	309	46.12%
Strongly Agree	285	42.54%
<b>Total</b>	<b>670</b>	<b>100.00%</b>



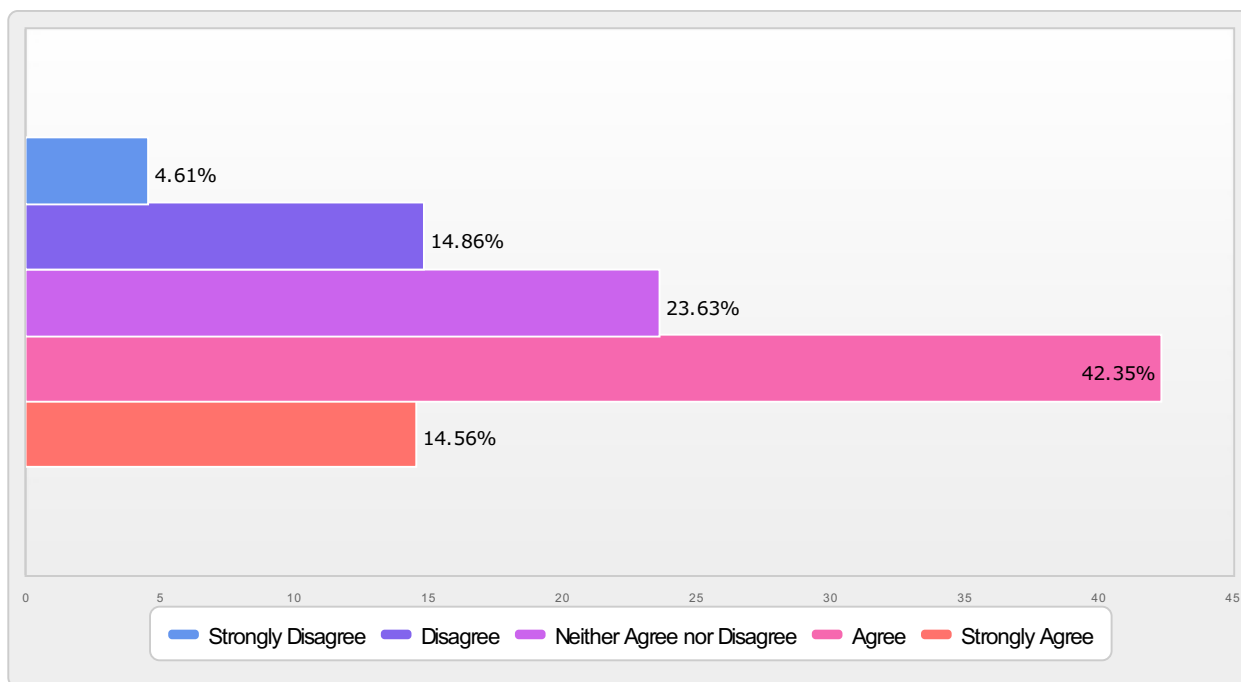
**Q16h - I don't think the government cares much what people like me think.**

Strongly Disagree	28	4.15%
Disagree	236	35.01%
Neither Agree nor Disagree	178	26.41%
Agree	180	26.71%
Strongly Agree	52	7.72%
<b>Total</b>	<b>674</b>	<b>100.00%</b>



**Q16i - If I know what is going on in an election I have a greater duty to vote than if I haven't been paying attention.**

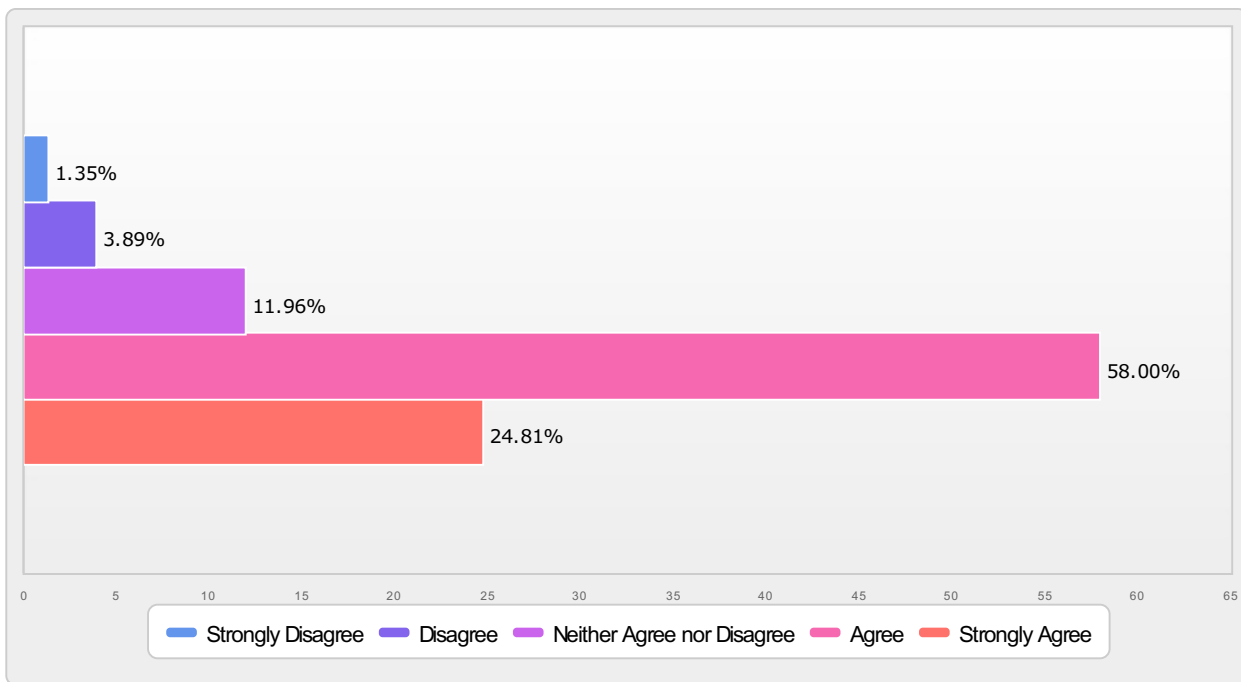
Strongly Disagree	31	4.61%
Disagree	100	14.86%
Neither Agree nor Disagree	159	23.63%
Agree	285	42.35%
Strongly Agree	98	14.56%
<b>Total</b>	<b>673</b>	<b>100.00%</b>





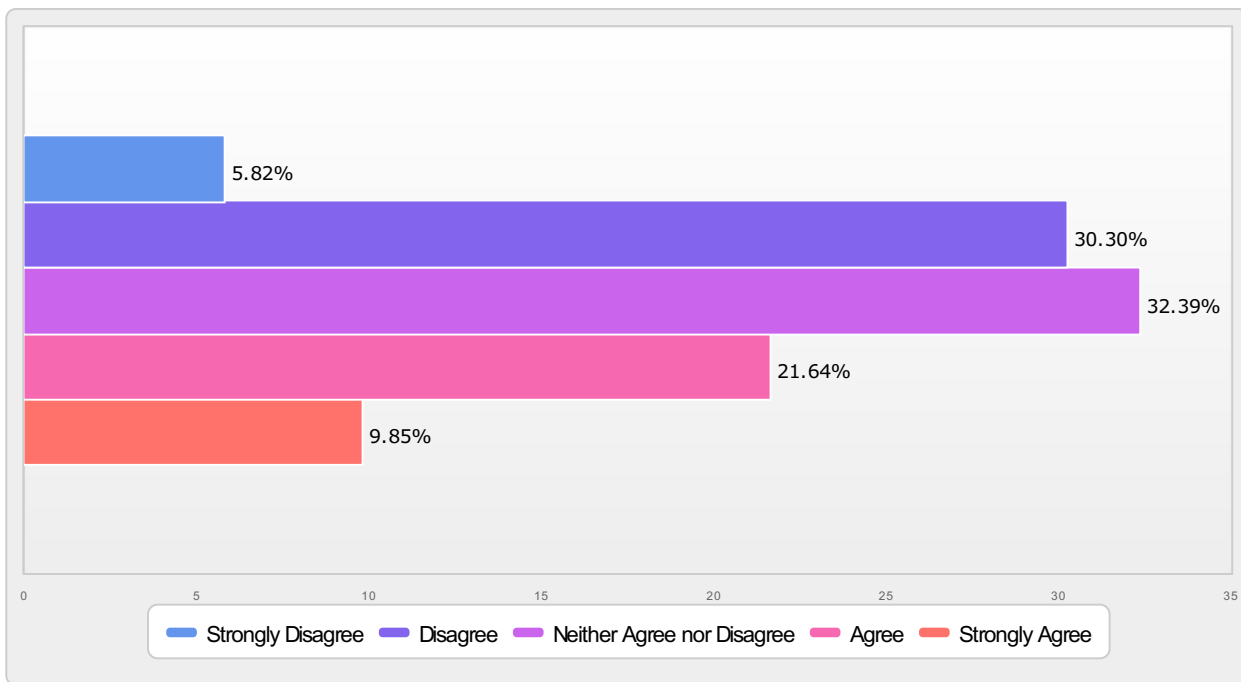
**Q16j - I feel I have a pretty good knowledge of computers and the Internet.**

Strongly Disagree	9	1.35%
Disagree	26	3.89%
Neither Agree nor Disagree	80	11.96%
Agree	388	58.00%
Strongly Agree	166	24.81%
<b>Total</b>	<b>669</b>	<b>100.00%</b>



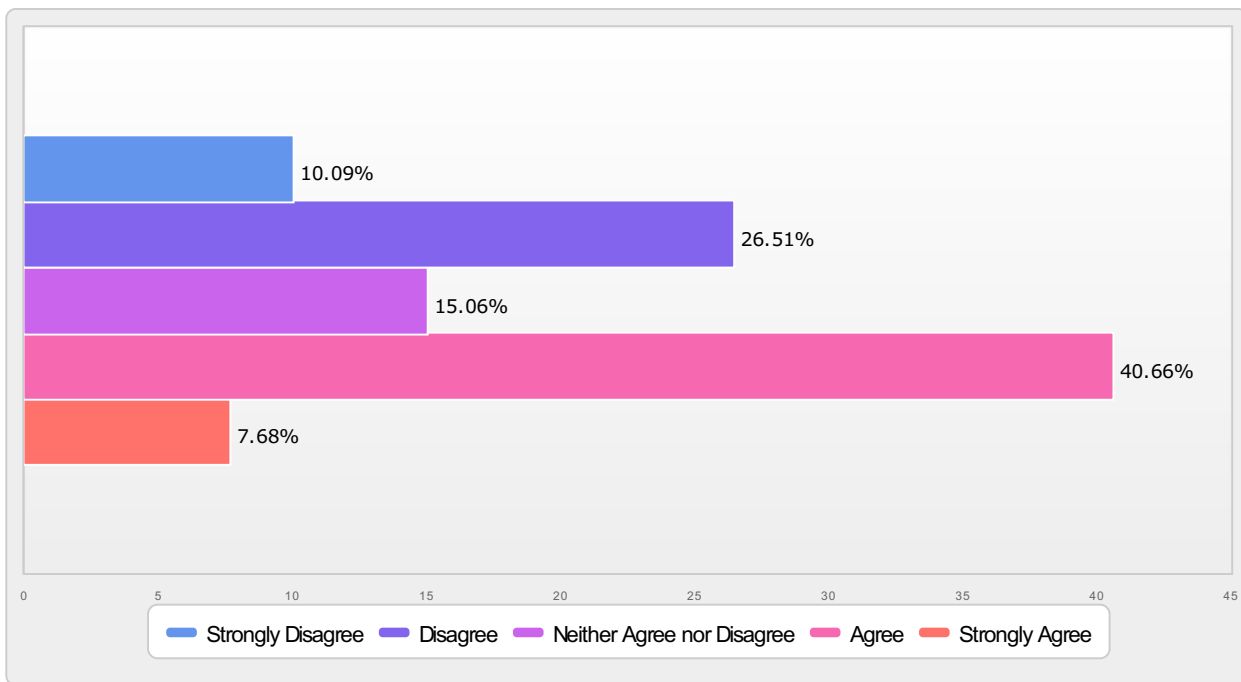
**Q16k - There are more risks (e.g. security, fraud) with Internet voting than voting in-person at traditional polling stations.**

Strongly Disagree	39	5.82%
Disagree	203	30.30%
Neither Agree nor Disagree	217	32.39%
Agree	145	21.64%
Strongly Agree	66	9.85%
<b>Total</b>	<b>670</b>	<b>100.00%</b>



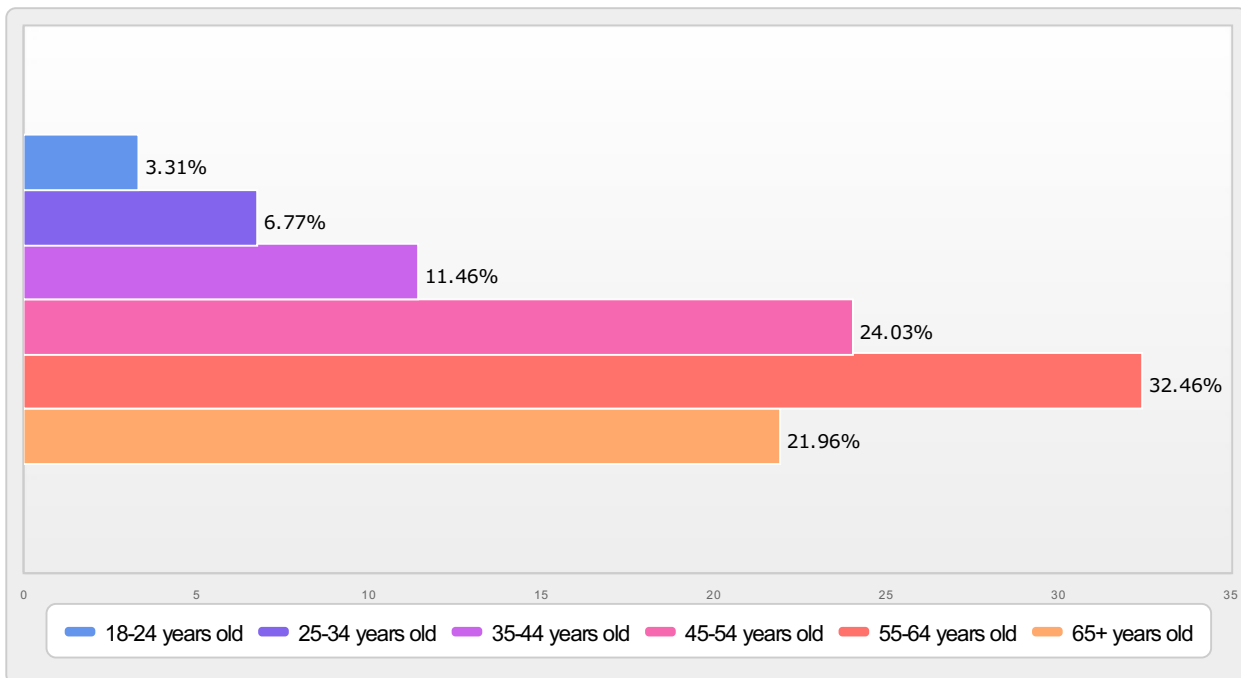
**Q16I - It is ok to vote by Internet in front of others as long as they do not influence your vote.**

Strongly Disagree	67	10.09%
Disagree	176	26.51%
Neither Agree nor Disagree	100	15.06%
Agree	270	40.66%
Strongly Agree	51	7.68%
<b>Total</b>	<b>664</b>	<b>100.00%</b>



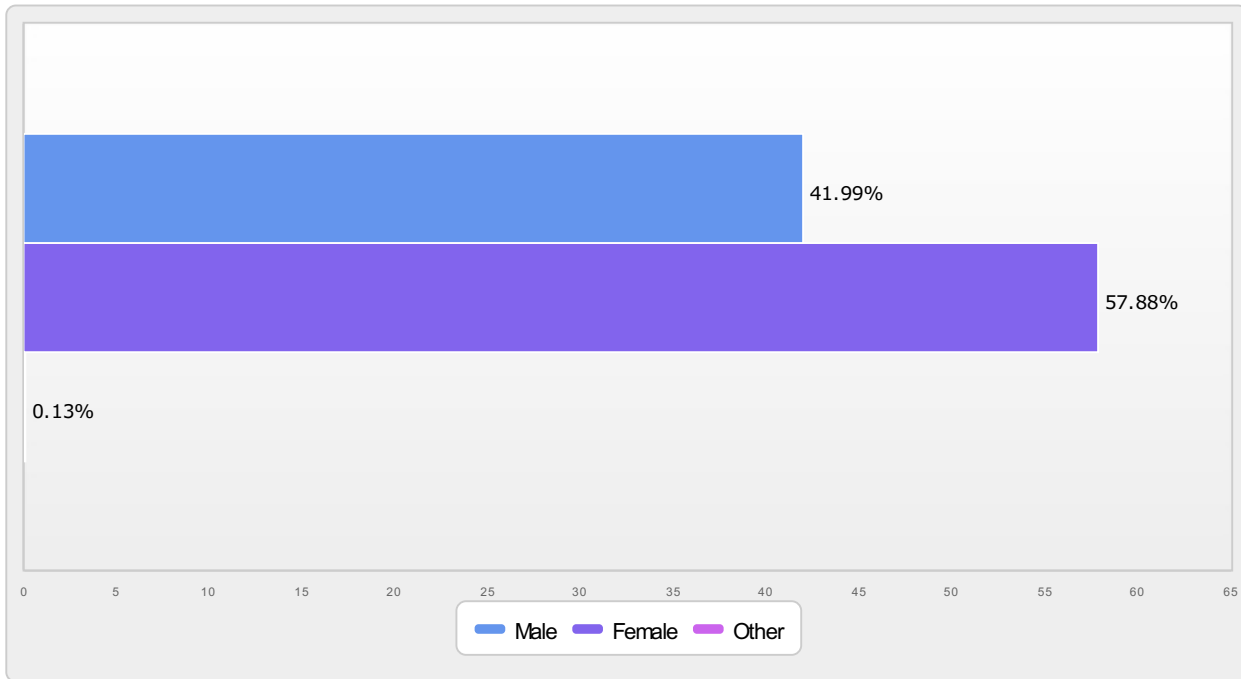
Q17 - What is your age?

18-24 years old	24	3.31%
25-34 years old	49	6.77%
35-44 years old	83	11.46%
45-54 years old	174	24.03%
55-64 years old	235	32.46%
65+ years old	159	21.96%
<b>Total</b>	<b>724</b>	<b>100.00%</b>



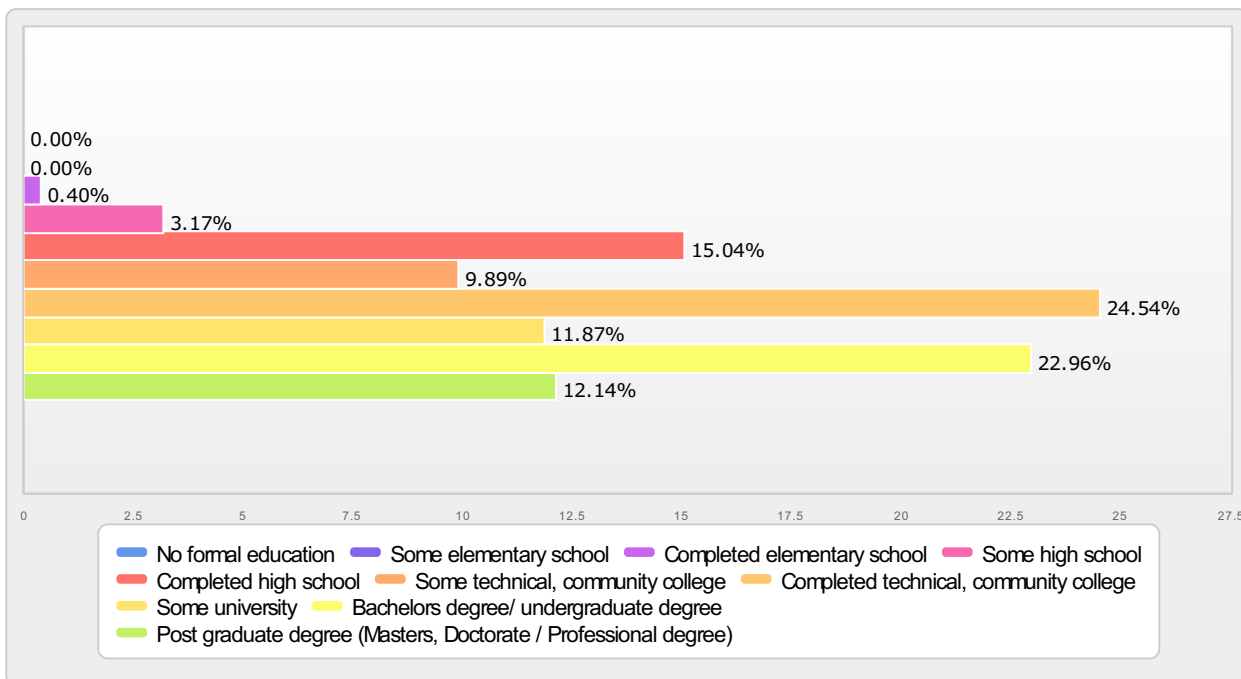
Q18 - What is your gender?

Male	317	41.99%
Female	437	57.88%
Other	1	0.13%
<b>Total</b>	<b>755</b>	<b>100.00%</b>



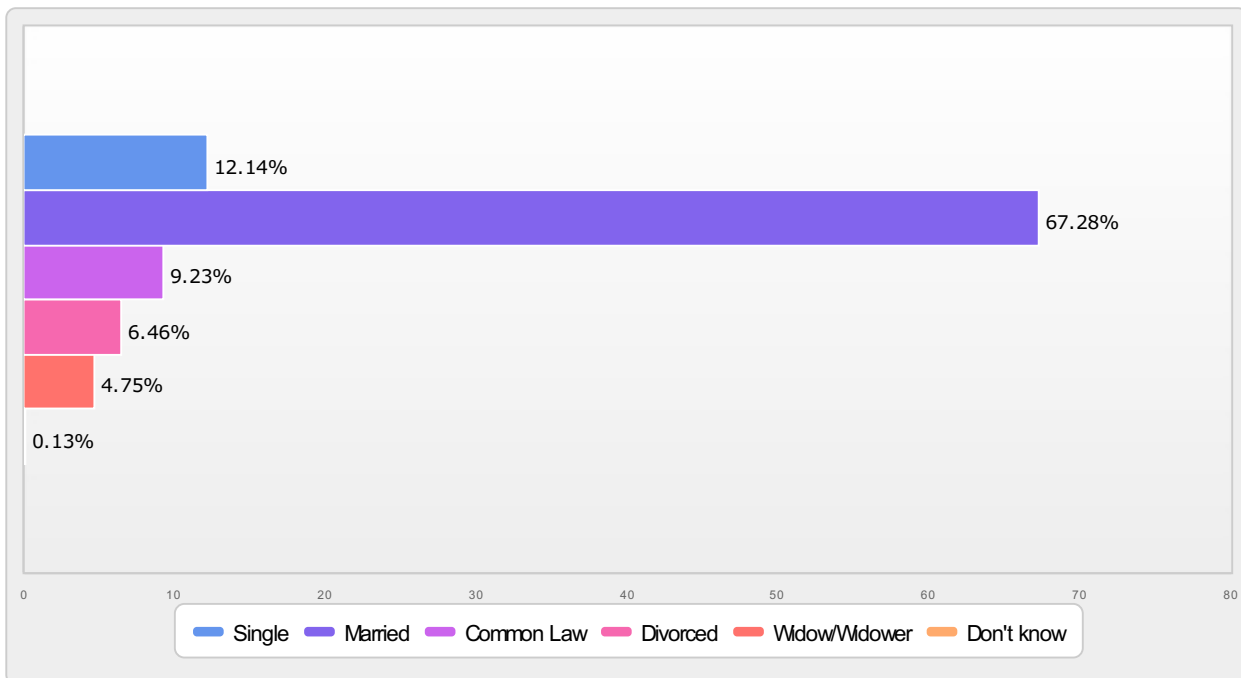
**Q19 - What is the highest level of education that you have completed?**

No formal education	0	0.00%
Some elementary school	0	0.00%
Completed elementary school	3	0.40%
Some high school	24	3.17%
Completed high school	114	15.04%
Some technical, community college	75	9.89%
Completed technical, community college	186	24.54%
Some university	90	11.87%
Bachelors degree/ undergraduate degree	174	22.96%
Post graduate degree (Masters, Doctorate / Professional degree)	92	12.14%
<b>Total</b>	<b>758</b>	<b>100.00%</b>



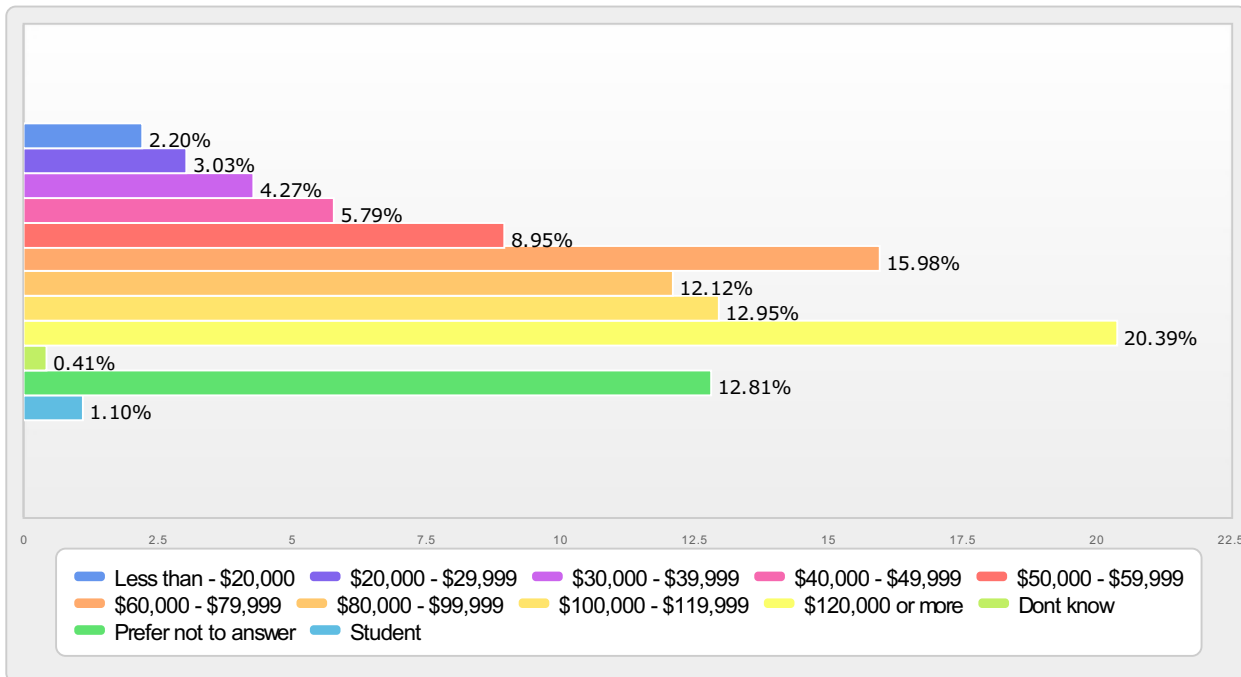
**Q20 - Which of the following represents your current marital status?**

Single	92	12.14%
Married	510	67.28%
Common Law	70	9.23%
Divorced	49	6.46%
Widow/Widower	36	4.75%
Don't know	1	0.13%
<b>Total</b>	<b>758</b>	<b>100.00%</b>



**Q21 - In which of the following classifications does your total household income fall (before taxes)?**

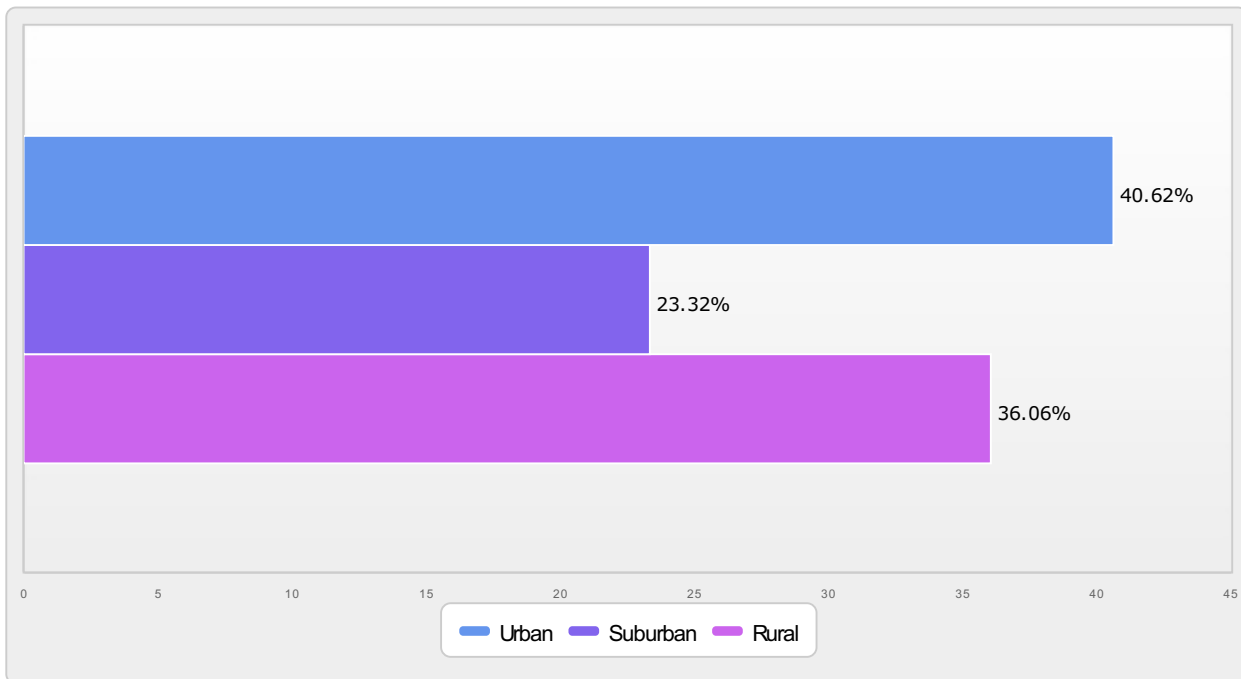
Less than - \$20,000	16	2.20%
\$20,000 - \$29,999	22	3.03%
\$30,000 - \$39,999	31	4.27%
\$40,000 - \$49,999	42	5.79%
\$50,000 - \$59,999	65	8.95%
\$60,000 - \$79,999	116	15.98%
\$80,000 - \$99,999	88	12.12%
\$100,000 - \$119,999	94	12.95%
\$120,000 or more	148	20.39%
Dont know	3	0.41%
Prefer not to answer	93	12.81%
Student	8	1.10%
<b>Total</b>	<b>726</b>	<b>100.00%</b>





Q22 - Would you say that you live in an area that is?

Urban	303	40.62%
Suburban	174	23.32%
Rural	269	36.06%
<b>Total</b>	<b>746</b>	<b>100.00%</b>



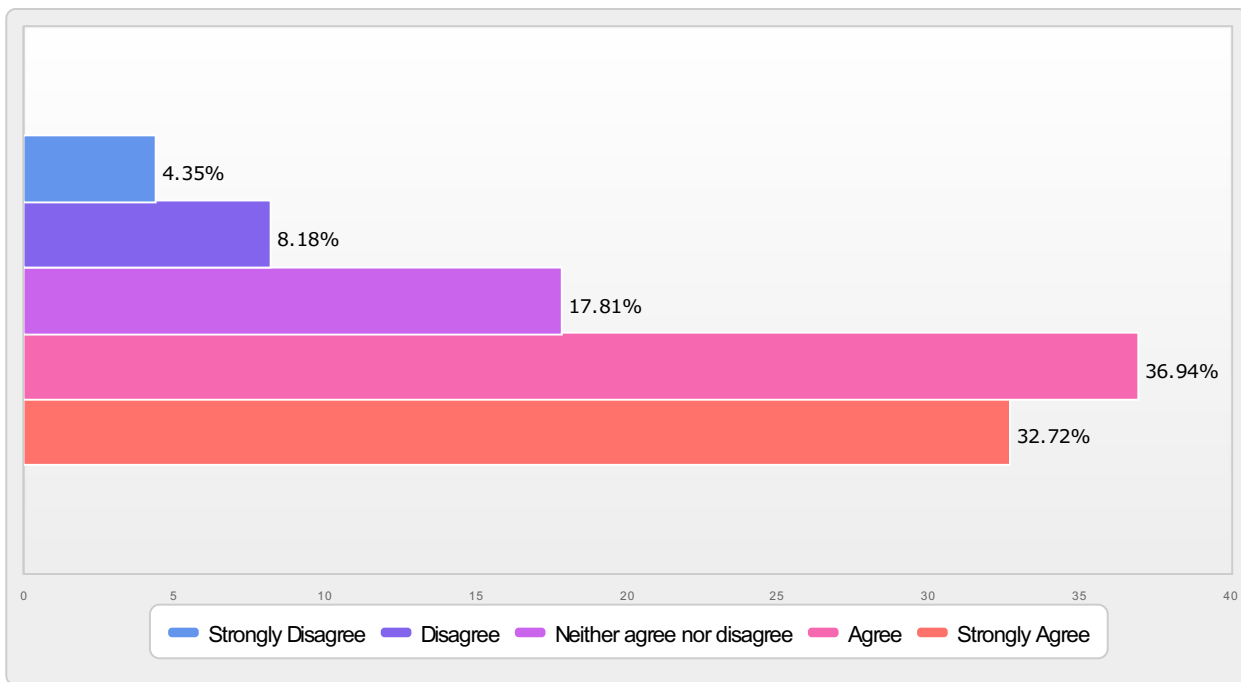
**Q24 - Do you consider yourself a person with a disability?**

Yes	65	8.64%
No	666	88.56%
Prefer not to answer	21	2.79%
<b>Total</b>	<b>752</b>	<b>100.00%</b>



**Q25 - Being able to vote online made the voting process more accessible for me.**

Strongly Disagree	33	4.35%
Disagree	62	8.18%
Neither agree nor disagree	135	17.81%
Agree	280	36.94%
Strongly Agree	248	32.72%
<b>Total</b>	<b>758</b>	<b>100.00%</b>



# Election Administrator Survey

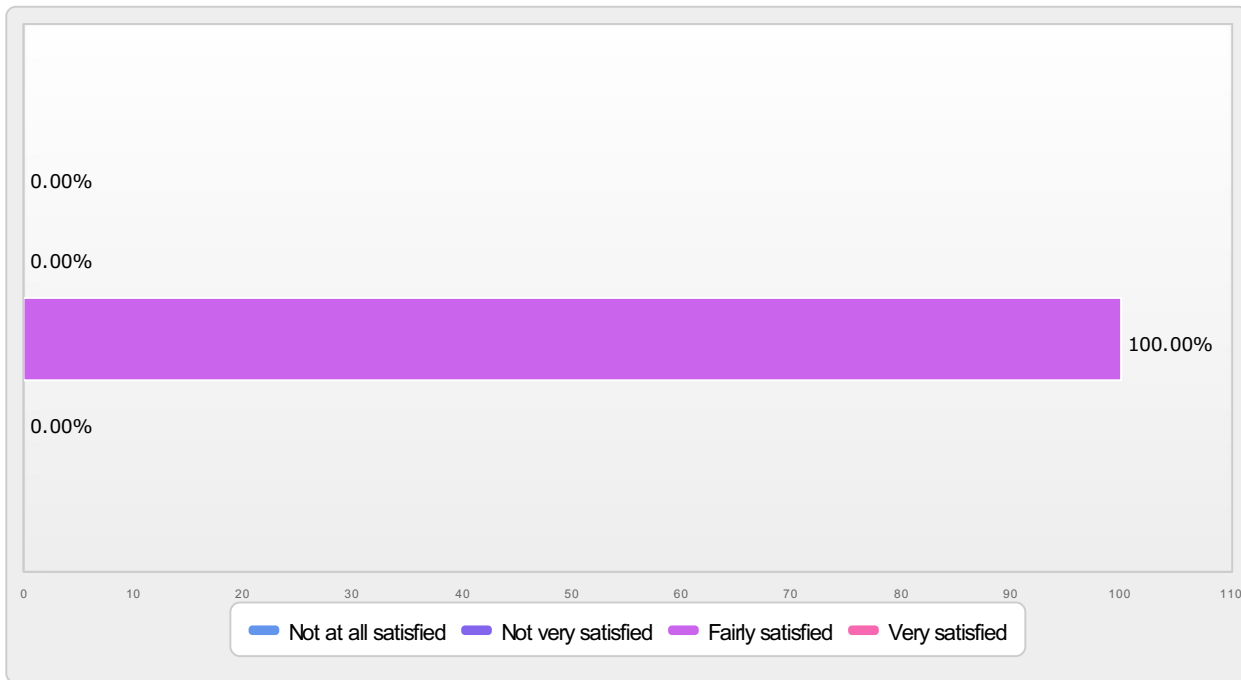
## Total Number of Completes

4

*Please note: For some questions in the Election Administrator and Candidate surveys your municipality name, which appeared in the live survey, has been replaced for the mini-reports with "Municipality".*

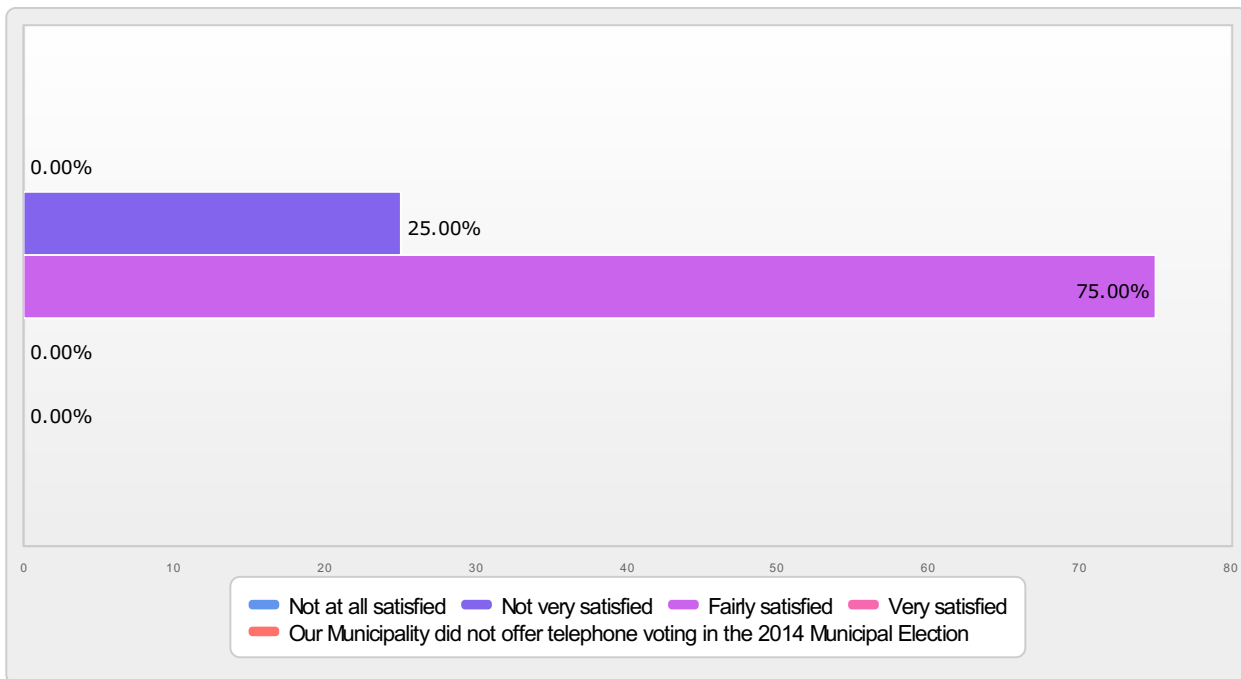
**Q3 - How would you rate your overall level of satisfaction with Internet voting in the 2014 Municipal Election?**

Not at all satisfied	0	0.00%
Not very satisfied	0	0.00%
Fairly satisfied	4	100.00%
Very satisfied	0	0.00%
<b>Total</b>	<b>4</b>	<b>100.00%</b>



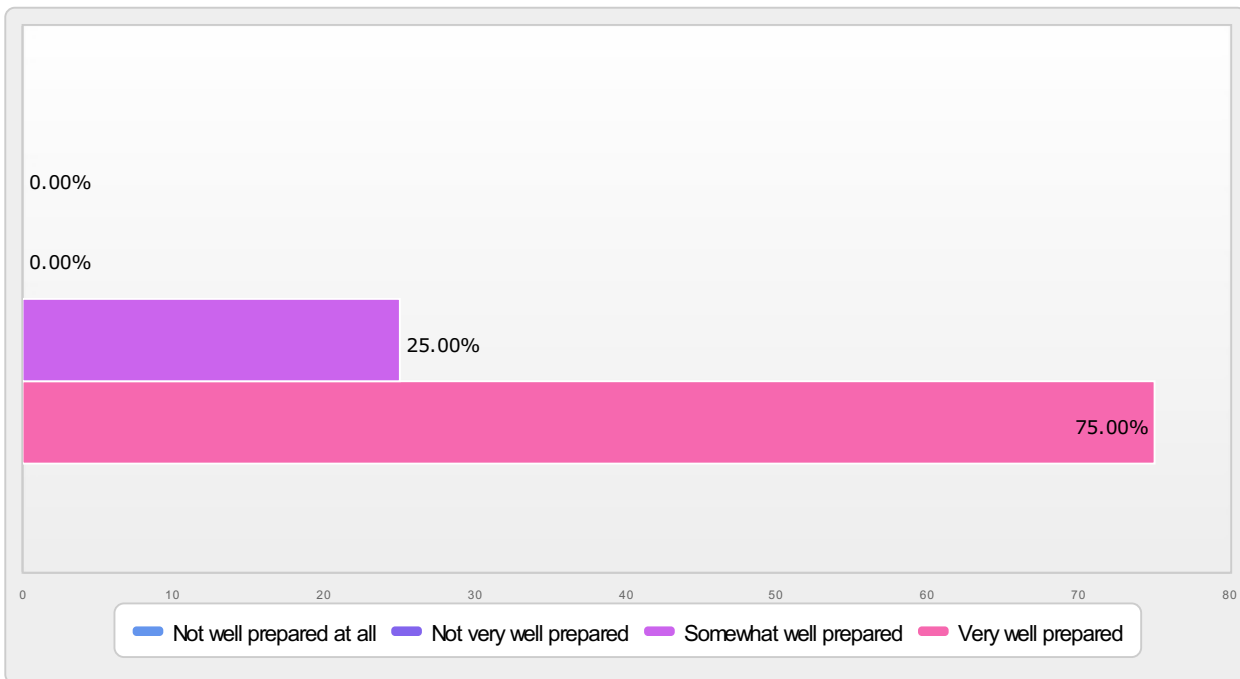
**Q4 - If offered, how would you rate your overall level of satisfaction with telephone voting in the 2014 Municipal Election?**

Not at all satisfied	0	0.00%
Not very satisfied	1	25.00%
Fairly satisfied	3	75.00%
Very satisfied	0	0.00%
Our Municipality did not offer telephone voting in the 2014 Municipal Election	0	0.00%
<b>Total</b>	<b>4</b>	<b>100.00%</b>



**Q5 - Generally speaking, how well prepared were you for the use of Internet voting in the 2014 Municipal Election?**

Not well prepared at all	0	0.00%
Not very well prepared	0	0.00%
Somewhat well prepared	1	25.00%
Very well prepared	3	75.00%
<b>Total</b>	<b>4</b>	<b>100.00%</b>



**Q6 - Were training sessions provided by your municipal office?**

Yes	4	100.00%
No	0	0.00%
Dont know	0	0.00%
<b>Total</b>	<b>4</b>	<b>100.00%</b>





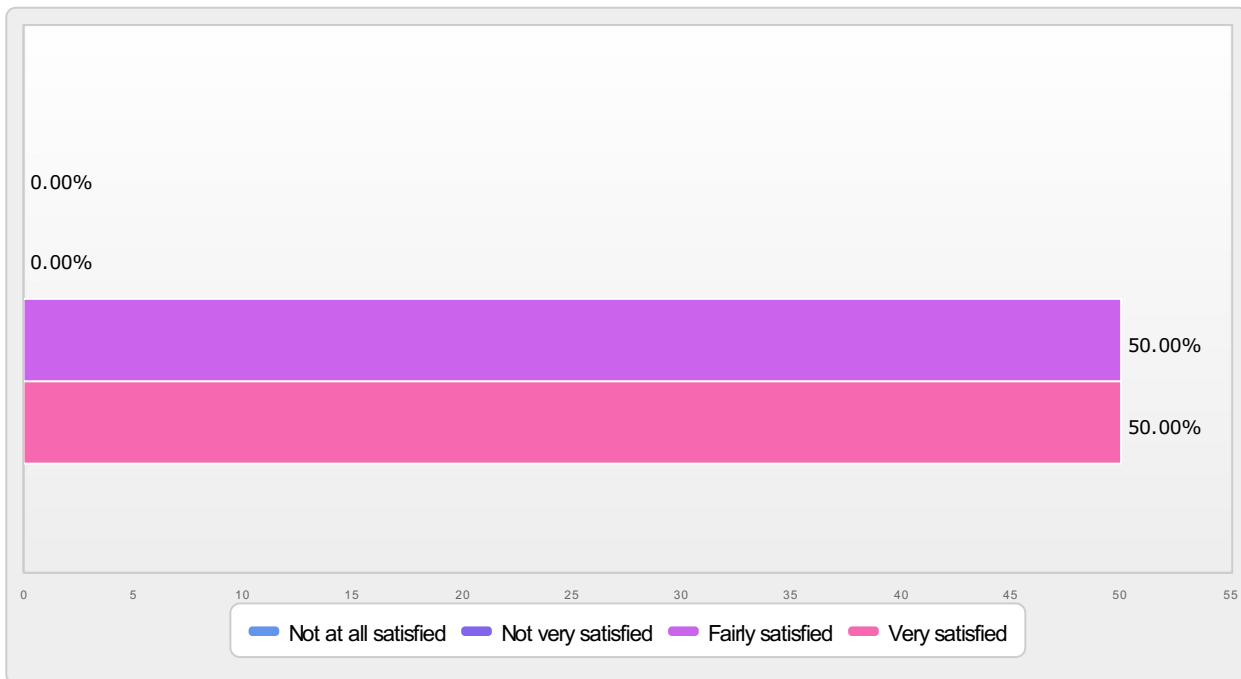
**Q7a - Did you attend the training sessions provided by your municipal office?**

Yes	4	100.00%
No	0	0.00%
Dont know	0	0.00%
<b>Total</b>	<b>4</b>	<b>100.00%</b>



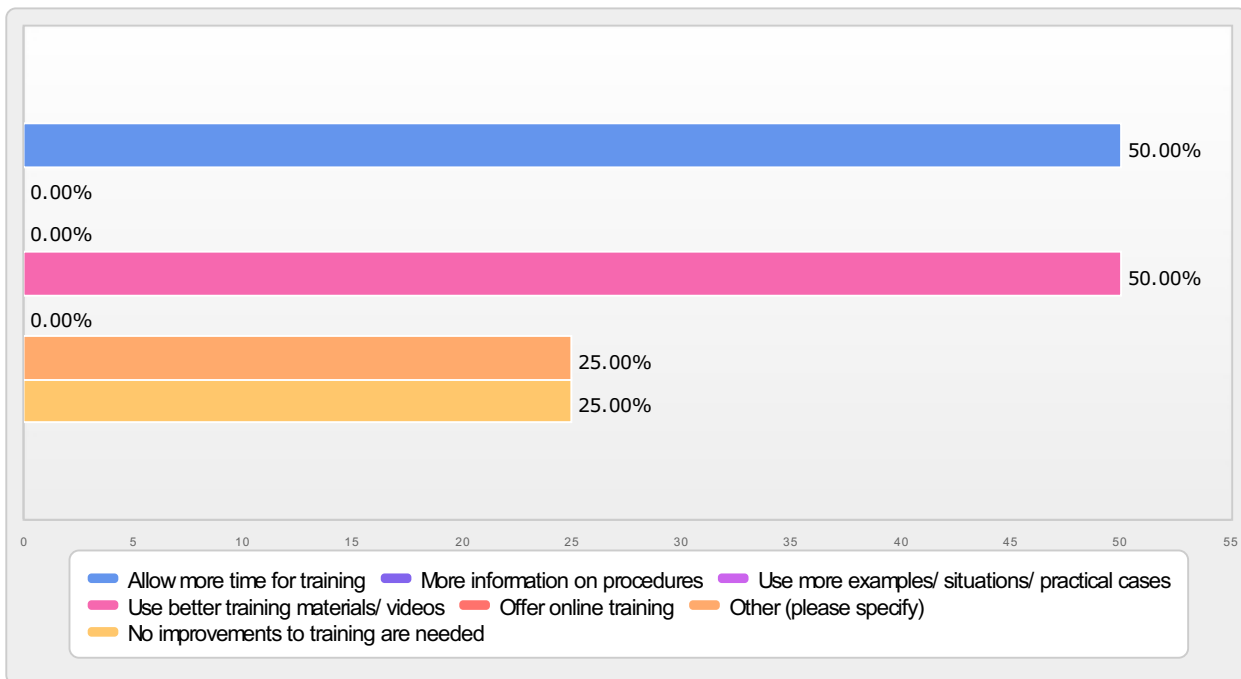
**Q7b - How satisfied are you with the training provided?**

Not at all satisfied	0	0.00%
Not very satisfied	0	0.00%
Fairly satisfied	2	50.00%
Very satisfied	2	50.00%
<b>Total</b>	<b>4</b>	<b>100.00%</b>



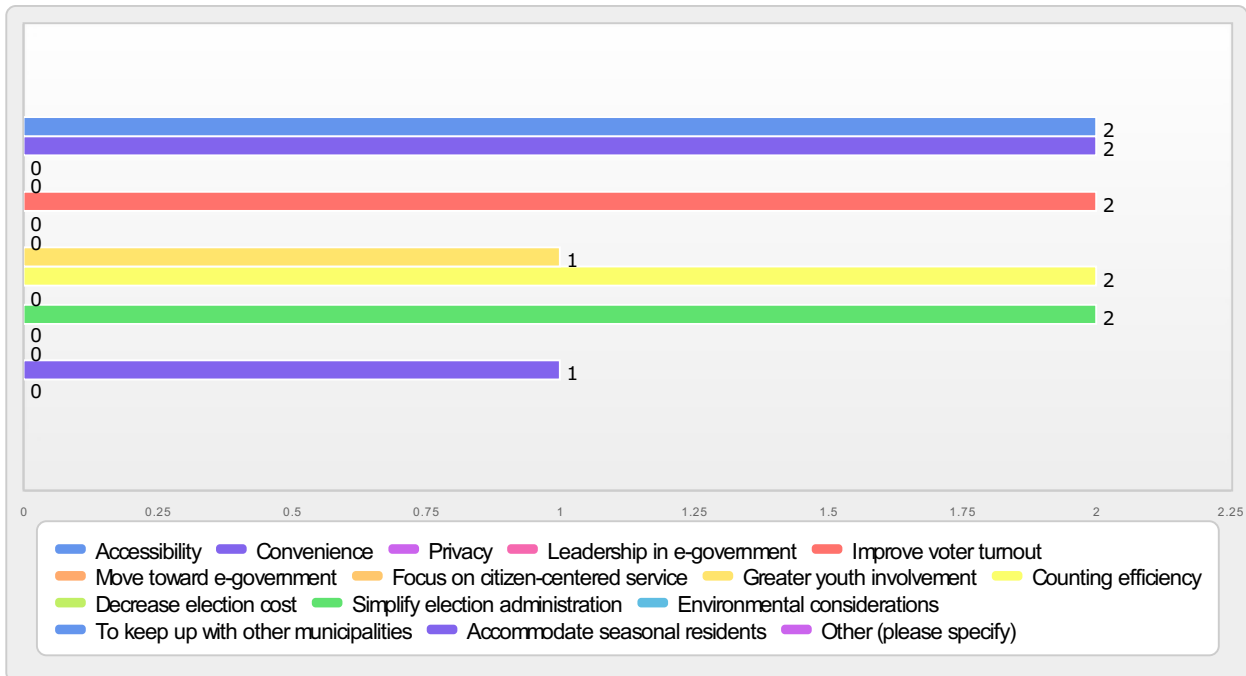
**Q7c - What could be done to improve training?**

Allow more time for training	2	50.00%
More information on procedures	0	0.00%
Use more examples/ situations/ practical cases	0	0.00%
Use better training materials/ videos	2	50.00%
Offer online training	0	0.00%
Other (please specify)	1	25.00%
No improvements to training are needed	1	25.00%
<b>Total</b>	<b>4</b>	<b>100.00%</b>



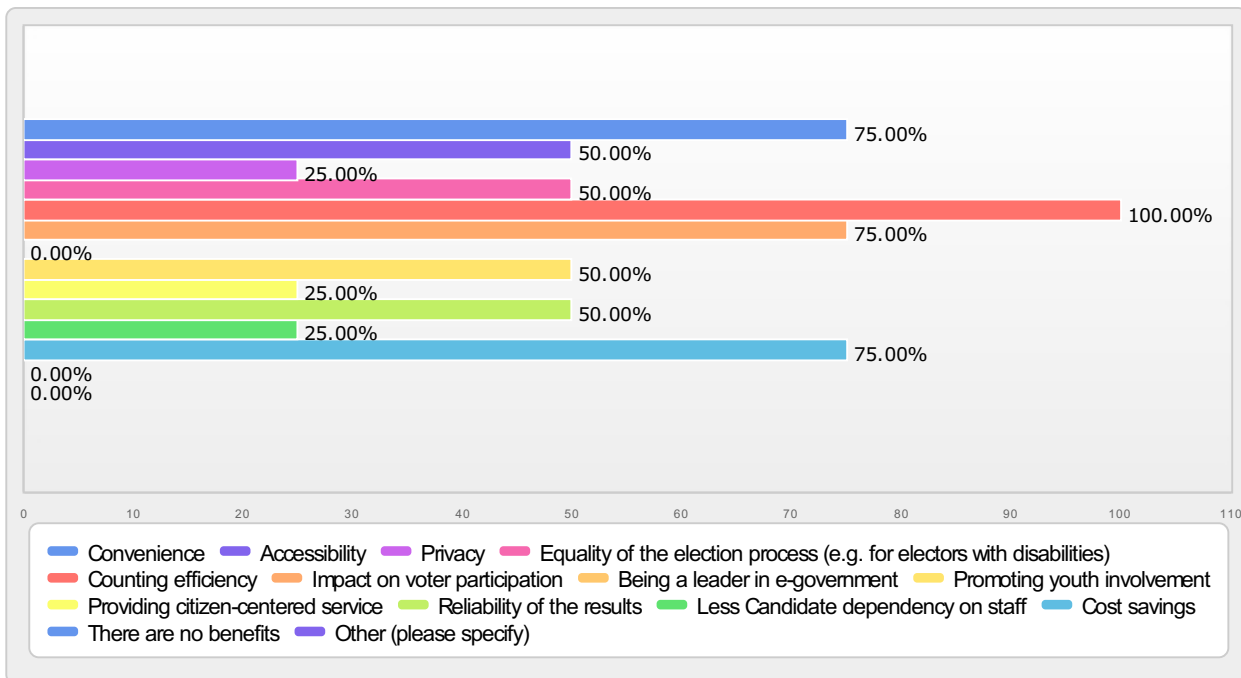
**Q9 - What would you say are the top reasons your municipality adopted Internet voting?**

Accessibility	2
Convenience	2
Privacy	0
Leadership in e-government	0
Improve voter turnout	2
Move toward e-government	0
Focus on citizen-centered service	0
Greater youth involvement	1
Counting efficiency	2
Decrease election cost	0
Simplify election administration	2
Environmental considerations	0
To keep up with other municipalities	0
Accommodate seasonal residents	1
Other (please specify)	0



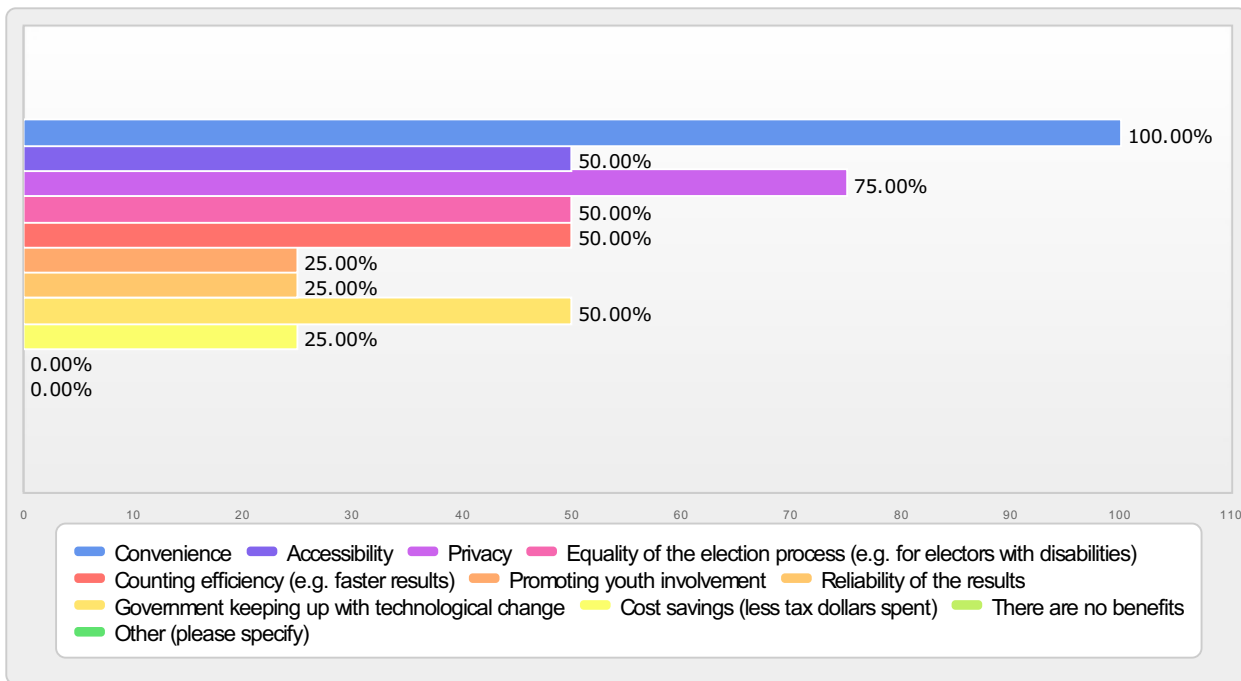
**Q10 - From the point of view of electoral administration, what would you say are the main benefits of Internet voting?**

Convenience	3	75.00%
Accessibility	2	50.00%
Privacy	1	25.00%
Equality of the election process (e.g. for electors with disabilities)	2	50.00%
Counting efficiency	4	100.00%
Impact on voter participation	3	75.00%
Being a leader in e-government	0	0.00%
Promoting youth involvement	2	50.00%
Providing citizen-centered service	1	25.00%
Reliability of the results	2	50.00%
Less Candidate dependency on staff	1	25.00%
Cost savings	3	75.00%
There are no benefits	0	0.00%
Other (please specify)	0	0.00%
<b>Total</b>	<b>4</b>	<b>100.00%</b>



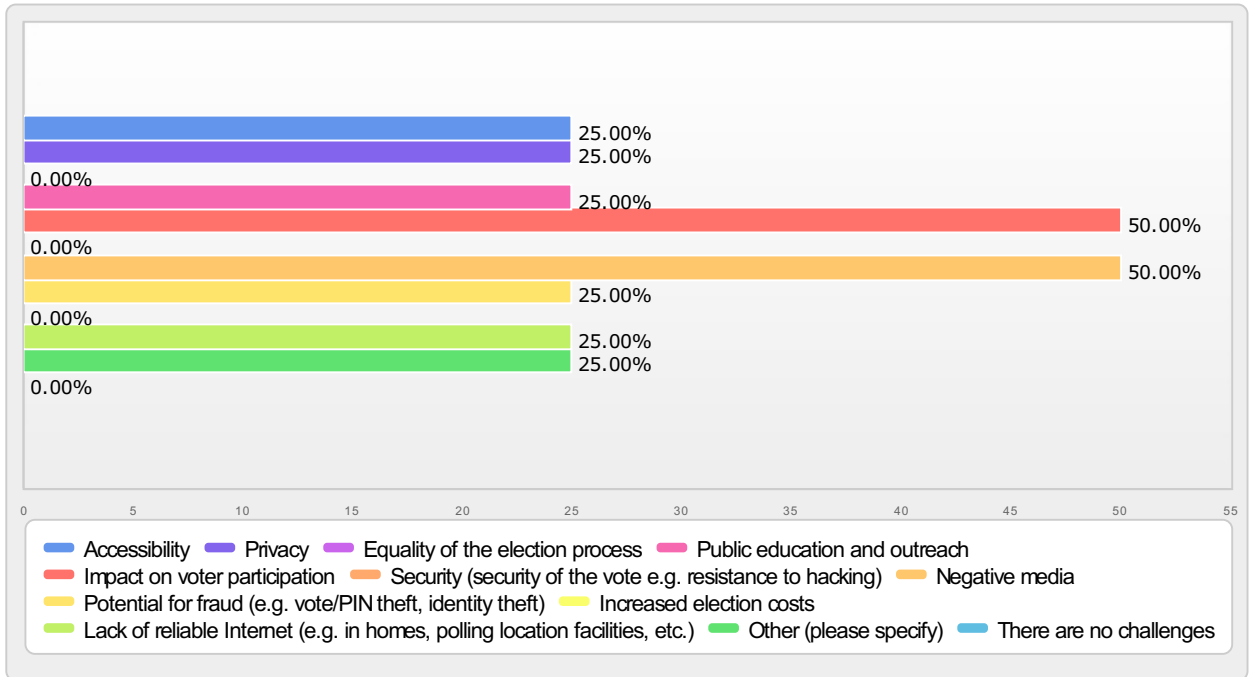
**Q11 - From the point of view of electors, what would you say are the main benefits of Internet voting?**

Convenience	4	100.00%
Accessibility	2	50.00%
Privacy	3	75.00%
Equality of the election process (e.g. for electors with disabilities)	2	50.00%
Counting efficiency (e.g. faster results)	2	50.00%
Promoting youth involvement	1	25.00%
Reliability of the results	1	25.00%
Government keeping up with technological change	2	50.00%
Cost savings (less tax dollars spent)	1	25.00%
There are no benefits	0	0.00%
Other (please specify)	0	0.00%
<b>Total</b>	<b>4</b>	<b>100.00%</b>



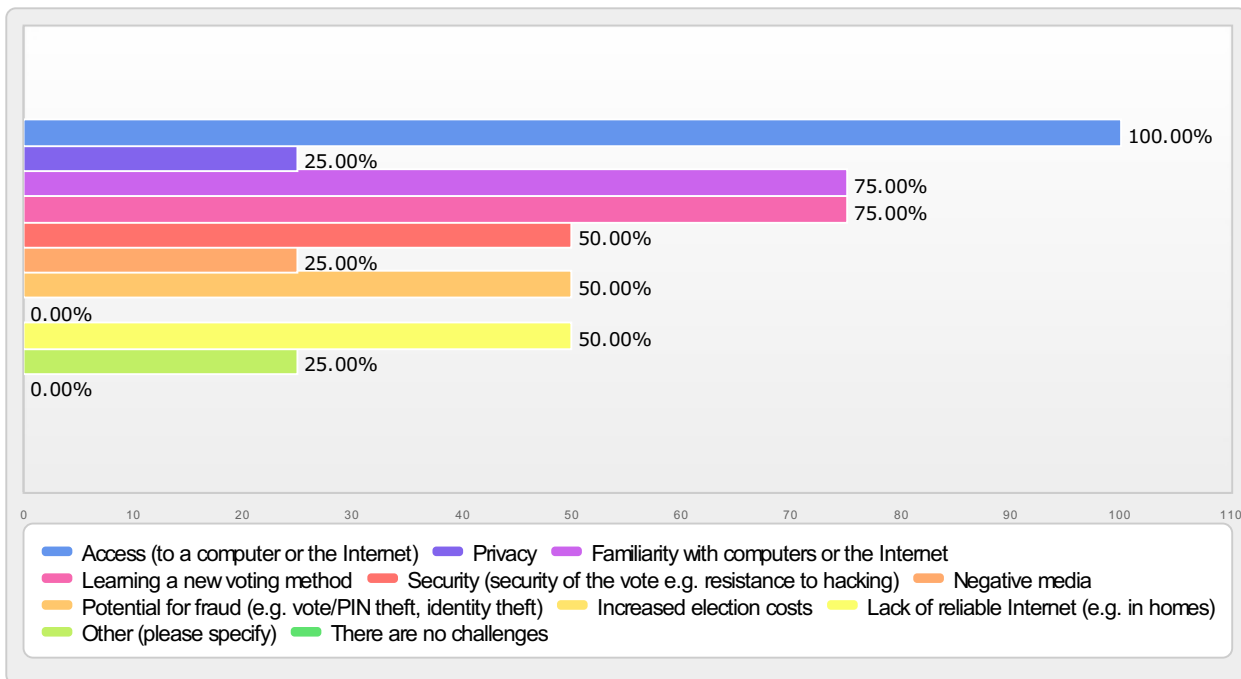
**Q12 - From the point of view of electoral administration, what would you say are the main challenges of Internet voting?**

Accessibility	1	25.00%
Privacy	1	25.00%
Equality of the election process	0	0.00%
Public education and outreach	1	25.00%
Impact on voter participation	2	50.00%
Security (security of the vote e.g. resistance to hacking)	0	0.00%
Negative media	2	50.00%
Potential for fraud (e.g. vote/PIN theft, identity theft)	1	25.00%
Increased election costs	0	0.00%
Lack of reliable Internet (e.g. in homes, polling location facilities, etc.)	1	25.00%
Other (please specify)	1	25.00%
There are no challenges	0	0.00%
<b>Total</b>	<b>4</b>	<b>100.00%</b>



**Q13 - From the point of view of electors, what would you say are the main challenges of Internet voting?**

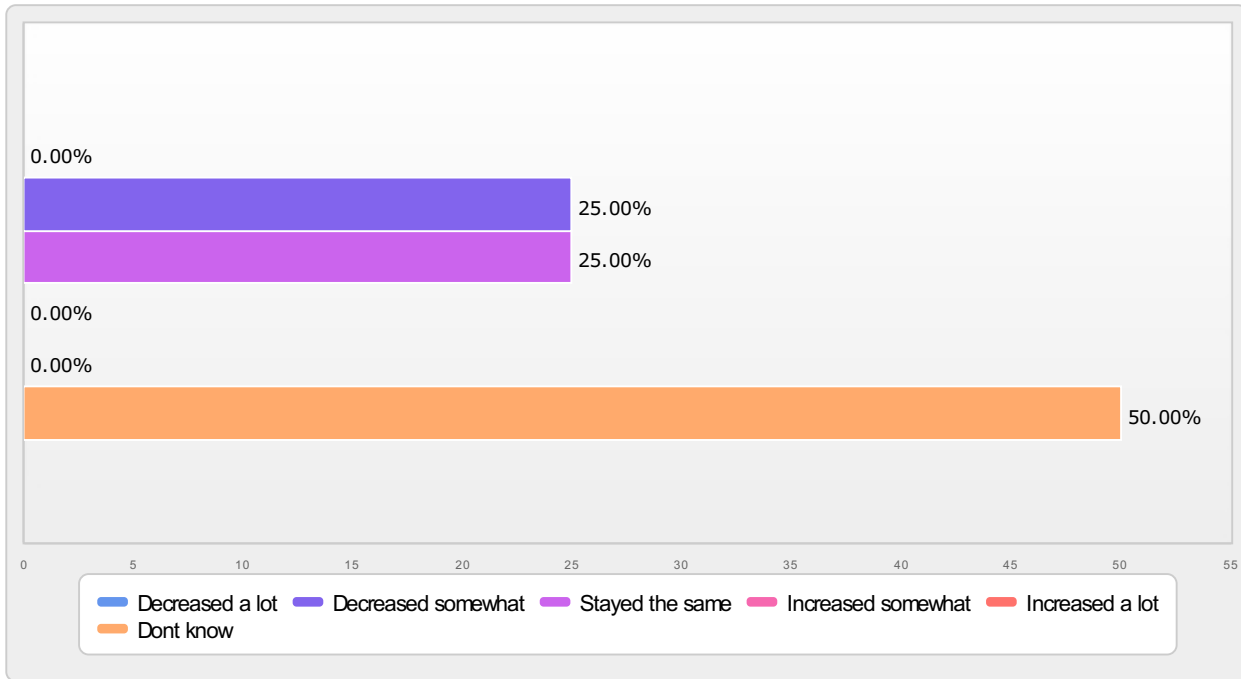
Access (to a computer or the Internet)	4	100.00%
Privacy	1	25.00%
Familiarity with computers or the Internet	3	75.00%
Learning a new voting method	3	75.00%
Security (security of the vote e.g. resistance to hacking)	2	50.00%
Negative media	1	25.00%
Potential for fraud (e.g. vote/PIN theft, identity theft)	2	50.00%
Increased election costs	0	0.00%
Lack of reliable Internet (e.g. in homes)	2	50.00%
Other (please specify)	1	25.00%
There are no challenges	0	0.00%
<b>Total</b>	<b>4</b>	<b>100.00%</b>





**Q14a - Since introducing Internet voting election costs have...**

Decreased a lot	0	0.00%
Decreased somewhat	1	25.00%
Stayed the same	1	25.00%
Increased somewhat	0	0.00%
Increased a lot	0	0.00%
Dont know	2	50.00%
<b>Total</b>	<b>4</b>	<b>100.00%</b>



**Q14d - Would you recommend using Internet voting in the 2018 election in the Municipality?**

Definitely yes	4	100.00%
Probably yes	0	0.00%
Probably no	0	0.00%
Definitely no	0	0.00%
<b>Total</b>	<b>4</b>	<b>100.00%</b>



**Q14e - Do you feel that Internet voting should be offered as an option in provincial elections?**

Definitely yes	4	100.00%
Probably yes	0	0.00%
Probably no	0	0.00%
Definitely no	0	0.00%
<b>Total</b>	<b>4</b>	<b>100.00%</b>



**Q14f - Do you feel that Internet voting should be offered as an option in federal elections?**

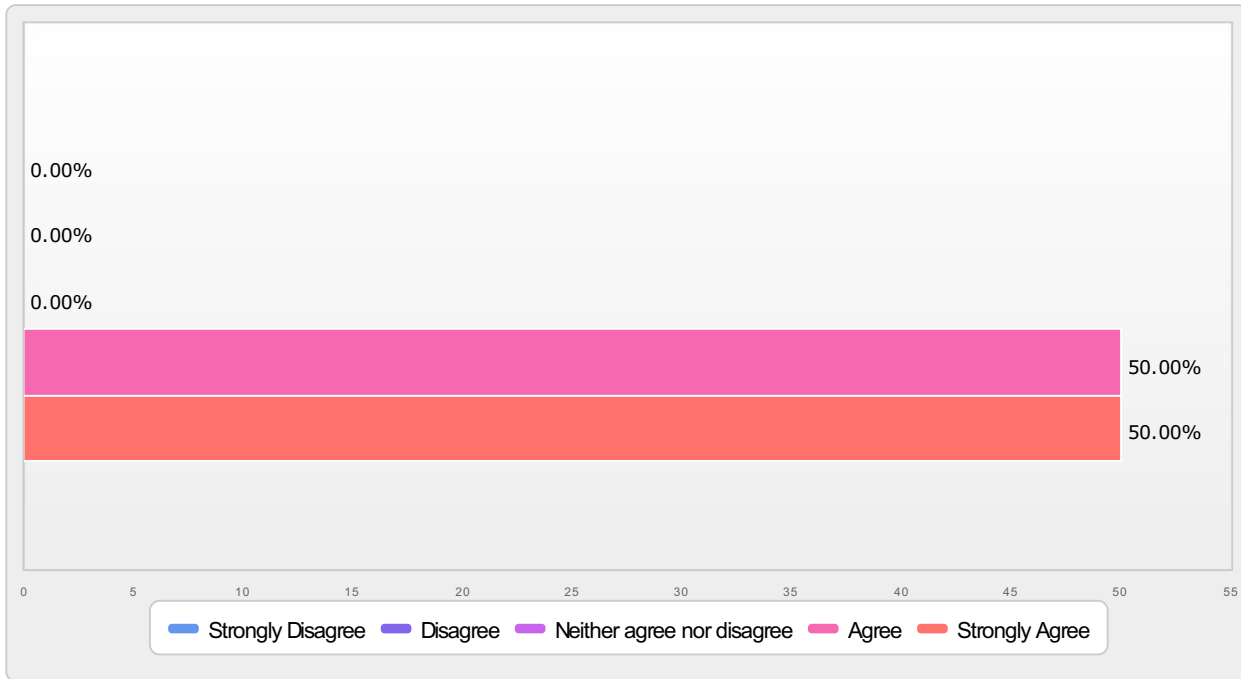
Definitely yes	4	100.00%
Probably yes	0	0.00%
Probably no	0	0.00%
Definitely no	0	0.00%
<b>Total</b>	<b>4</b>	<b>100.00%</b>



**Q15a - Please indicate whether you agree or disagree with the following statements.**

**The tabulation of election results is more efficient with Internet voting.**

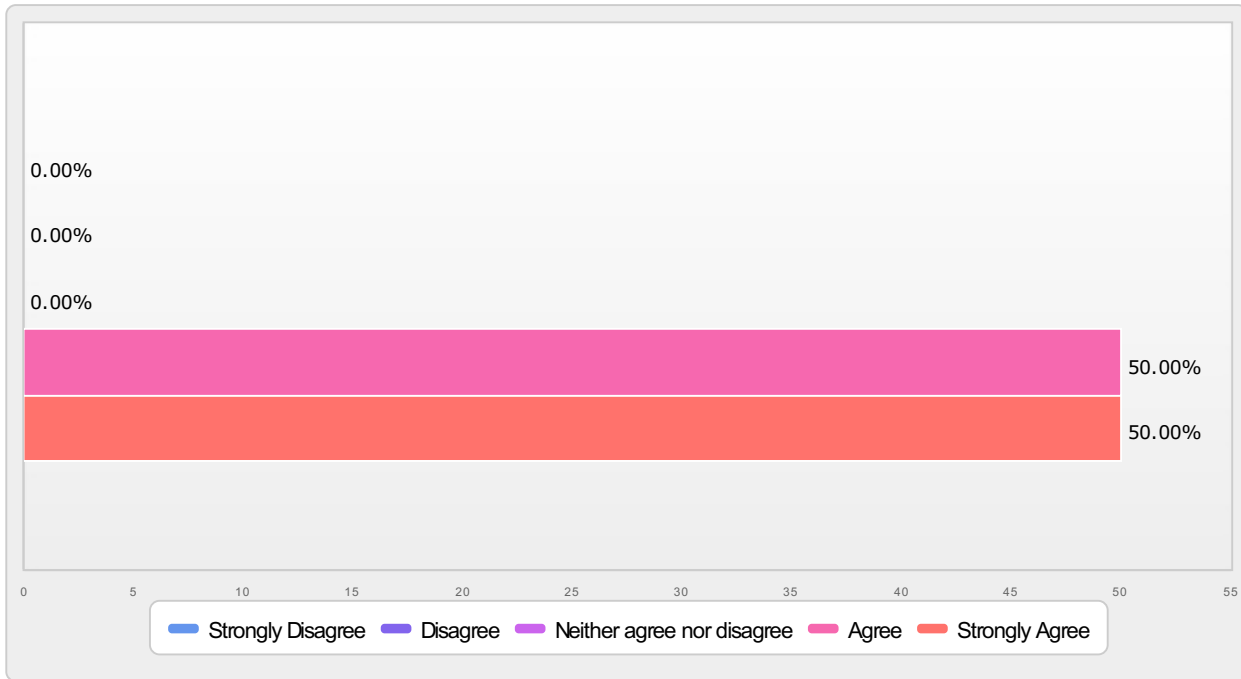
Strongly Disagree	0	0.00%
Disagree	0	0.00%
Neither agree nor disagree	0	0.00%
Agree	2	50.00%
Strongly Agree	2	50.00%
<b>Total</b>	<b>4</b>	<b>100.00%</b>



**Q15b - Please indicate whether you agree or disagree with the following statements.**

**Internet voting makes the voting process more accessible for electors.**

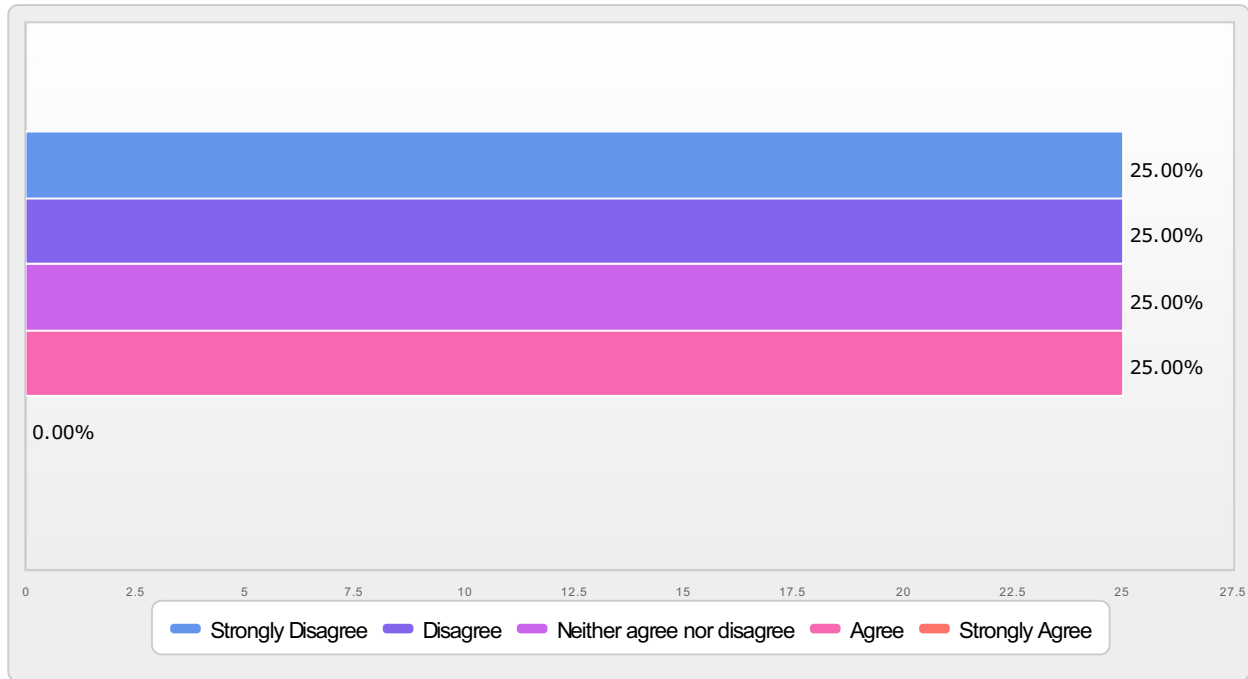
Strongly Disagree	0	0.00%
Disagree	0	0.00%
Neither agree nor disagree	0	0.00%
Agree	2	50.00%
Strongly Agree	2	50.00%
<b>Total</b>	<b>4</b>	<b>100.00%</b>



**Q15c - Please indicate whether you agree or disagree with the following statements.**

**There are more risks (e.g. security, fraud) with Internet voting than voting in-person with paper ballots.**

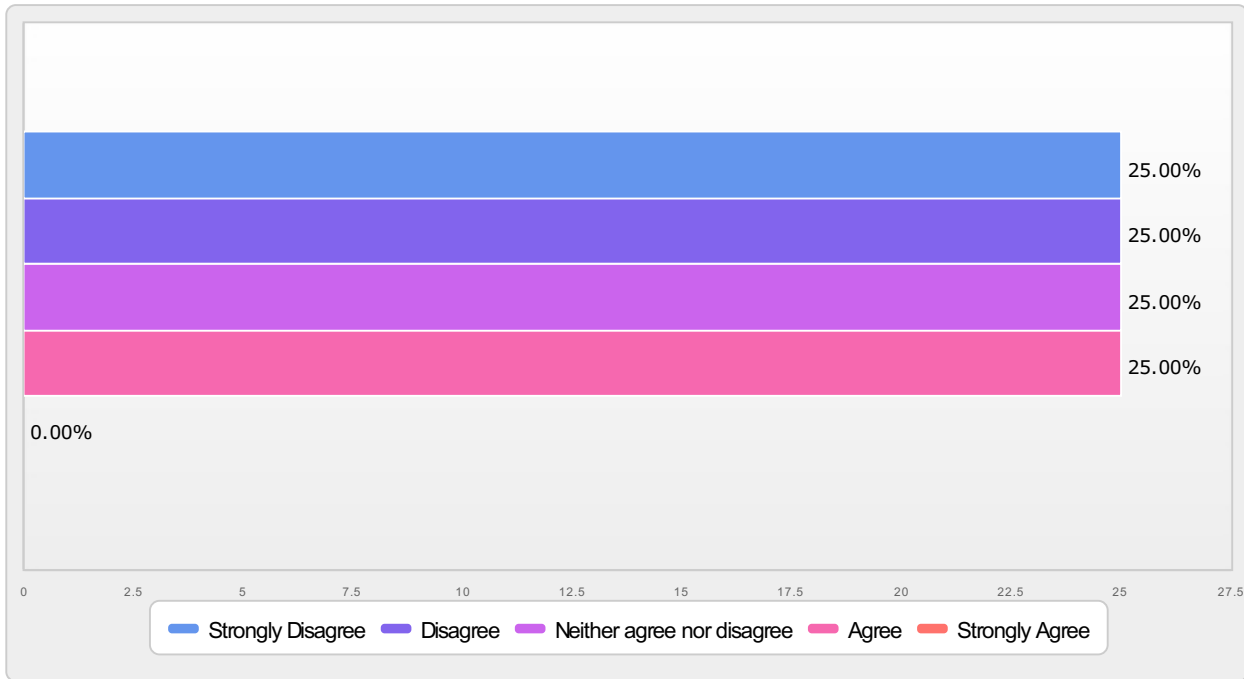
Strongly Disagree	1	25.00%
Disagree	1	25.00%
Neither agree nor disagree	1	25.00%
Agree	1	25.00%
Strongly Agree	0	0.00%
<b>Total</b>	<b>4</b>	<b>100.00%</b>



**Q15d - Please indicate whether you agree or disagree with the following statements.**

**There are more risks (e.g. security, fraud) with Internet voting than mail-in ballots.**

Strongly Disagree	1	25.00%
Disagree	1	25.00%
Neither agree nor disagree	1	25.00%
Agree	1	25.00%
Strongly Agree	0	0.00%
<b>Total</b>	<b>4</b>	<b>100.00%</b>

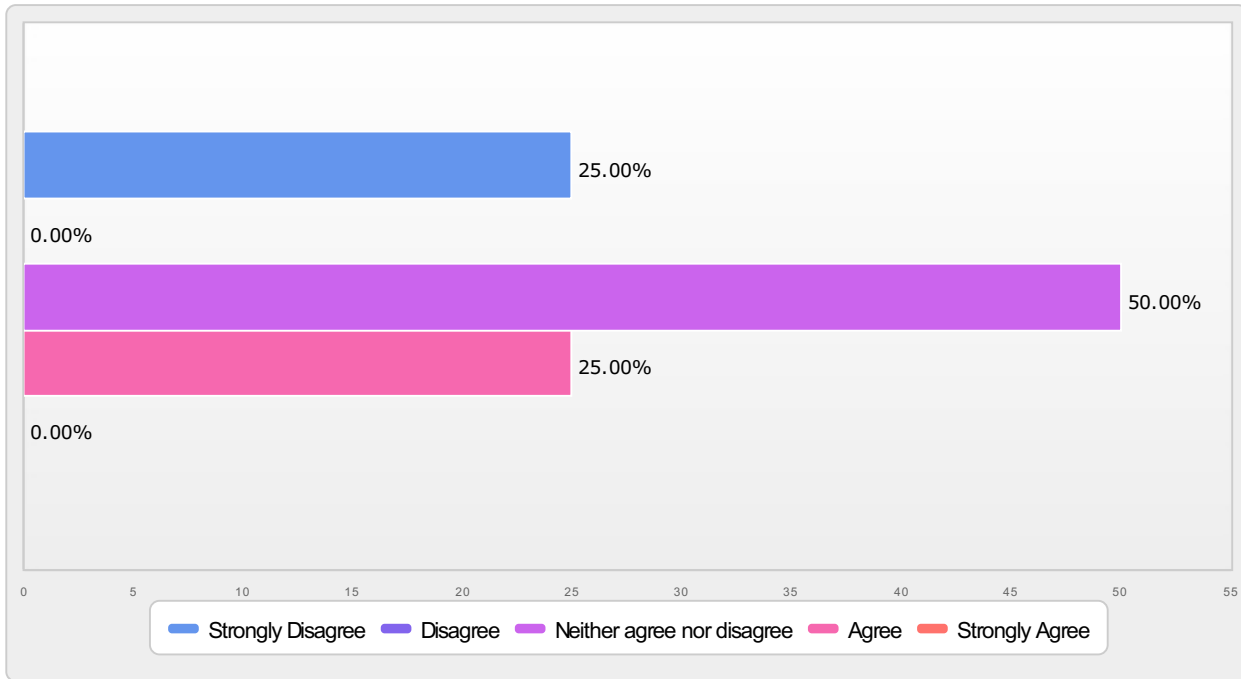




**Q15e - Please indicate whether you agree or disagree with the following statements.**

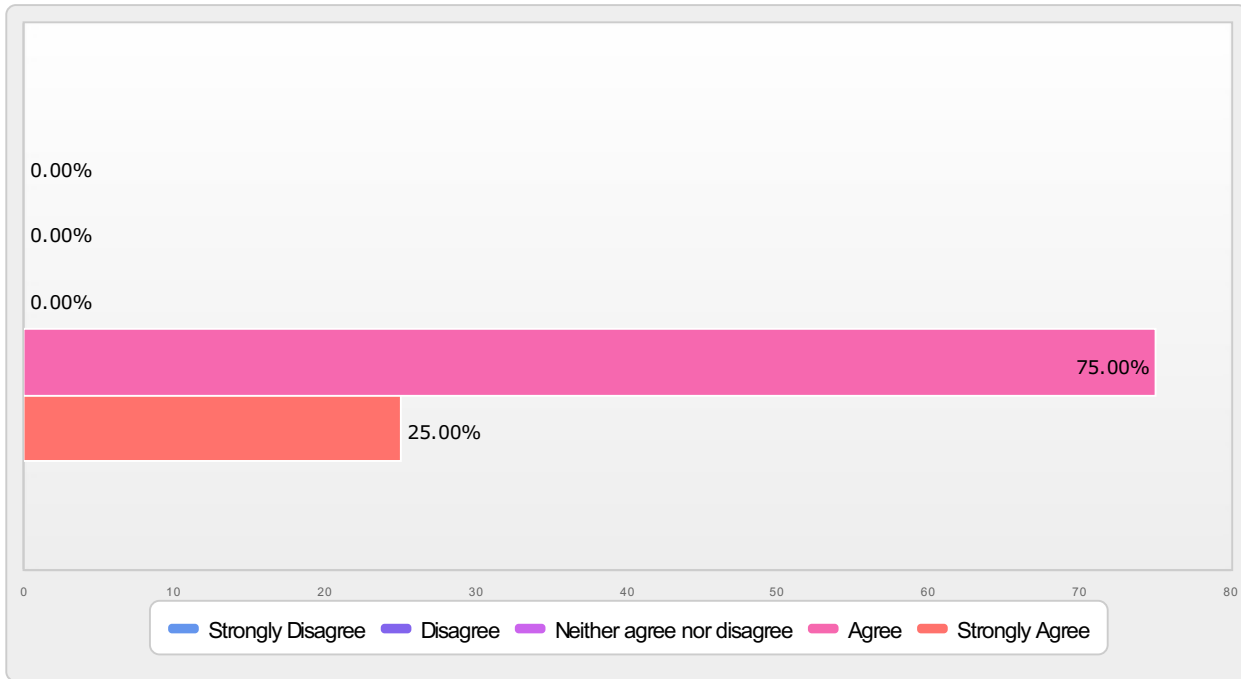
**There are more risks (e.g. security, fraud) with Internet voting than telephone voting.**

Strongly Disagree	1	25.00%
Disagree	0	0.00%
Neither agree nor disagree	2	50.00%
Agree	1	25.00%
Strongly Agree	0	0.00%
<b>Total</b>	<b>4</b>	<b>100.00%</b>



**Q15f - Please indicate whether you agree or disagree with the following statements.  
It is ok to vote by Internet in front of others as long as they do not influence your vote.**

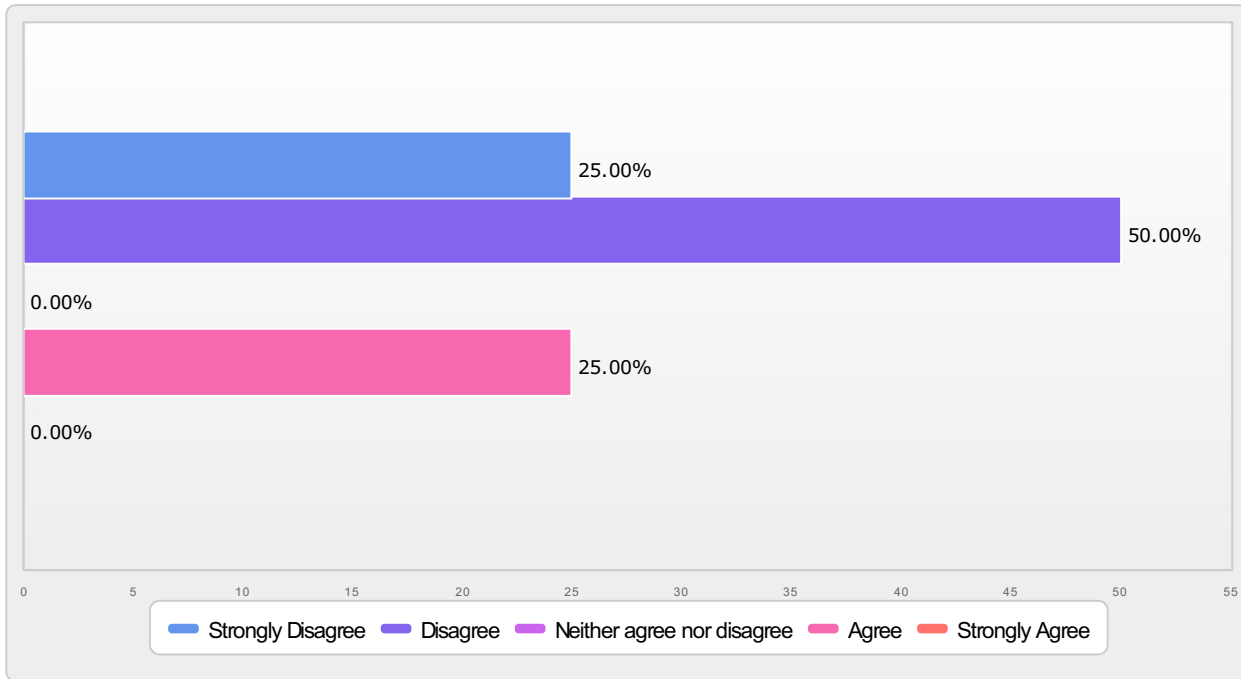
Strongly Disagree	0	0.00%
Disagree	0	0.00%
Neither agree nor disagree	0	0.00%
Agree	3	75.00%
Strongly Agree	1	25.00%
<b>Total</b>	<b>4</b>	<b>100.00%</b>



**Q15g - Please indicate whether you agree or disagree with the following statements.**

**Voter turnout in my municipality was positively affected by the option of Internet voting.**

Strongly Disagree	1	25.00%
Disagree	2	50.00%
Neither agree nor disagree	0	0.00%
Agree	1	25.00%
Strongly Agree	0	0.00%
<b>Total</b>	<b>4</b>	<b>100.00%</b>



# Candidate Survey

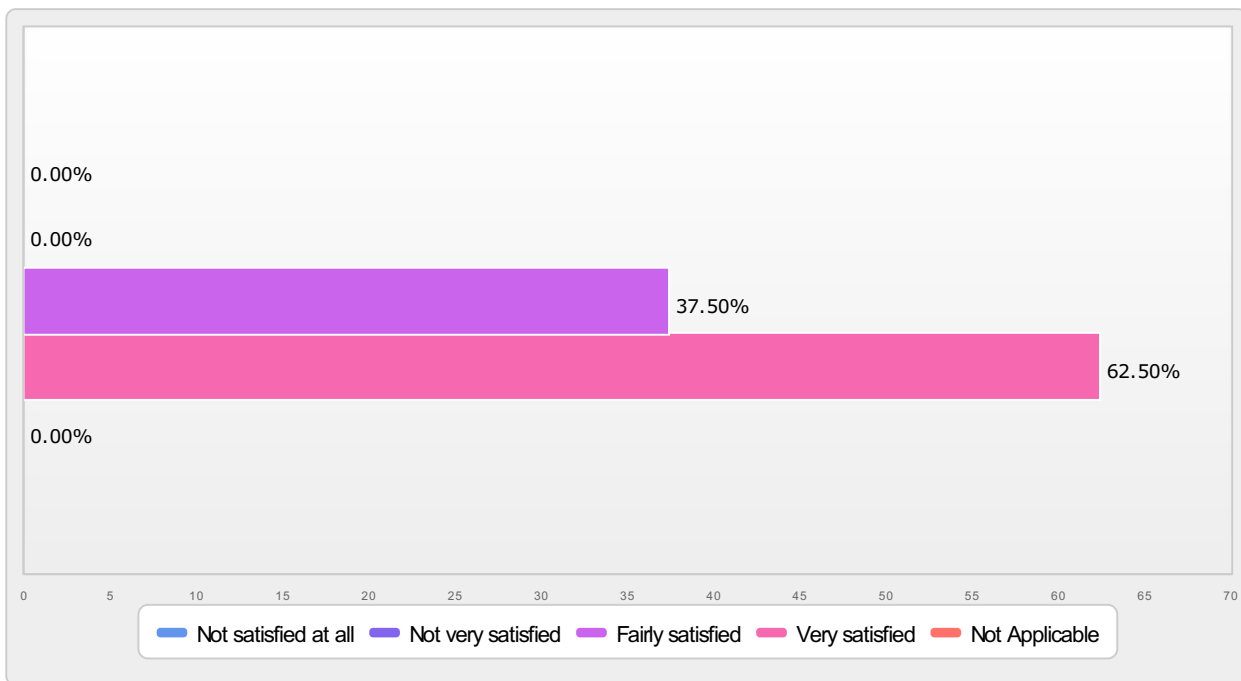
## Total Number of Completes

20

*Please note: For some questions in the Election Administrator and Candidate surveys your municipality name, which appeared in the live survey, has been replaced for the mini-reports with "Municipality".*

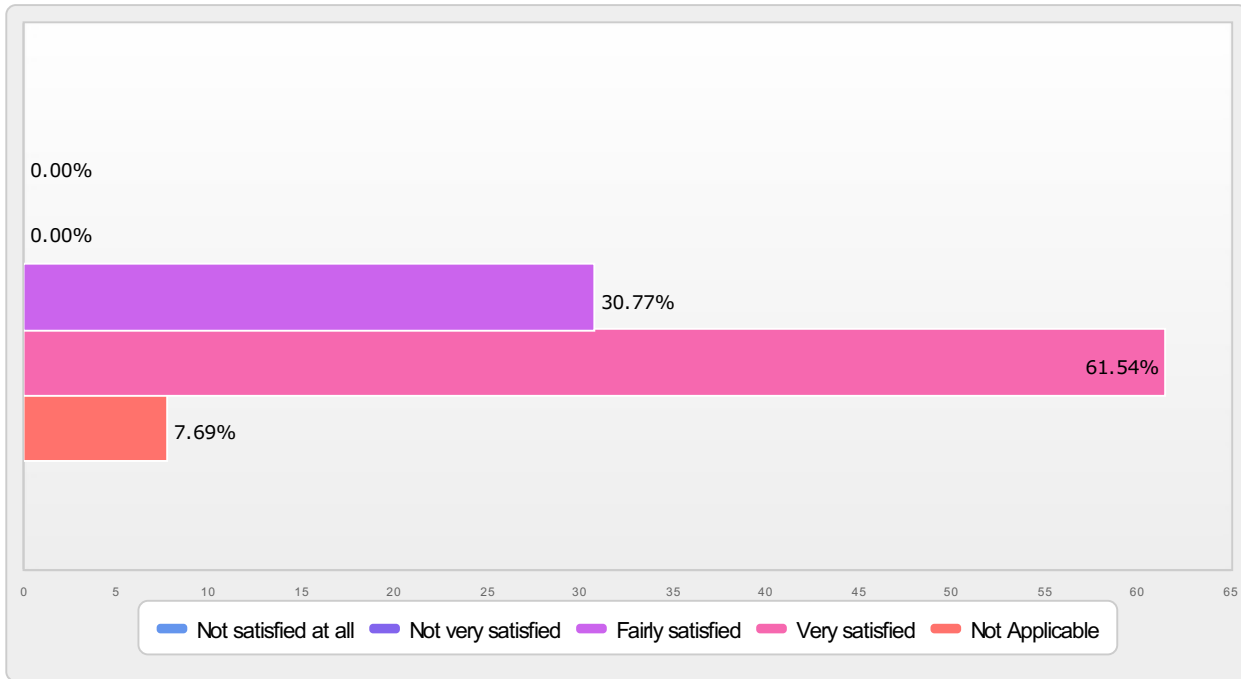
**Q1a - If applicable in your municipality, overall, how satisfied were you with...  
The 2014 Municipal election process?**

Not satisfied at all	0	0.00%
Not very satisfied	0	0.00%
Fairly satisfied	6	37.50%
Very satisfied	10	62.50%
Not Applicable	0	0.00%
<b>Total</b>	<b>16</b>	<b>100.00%</b>



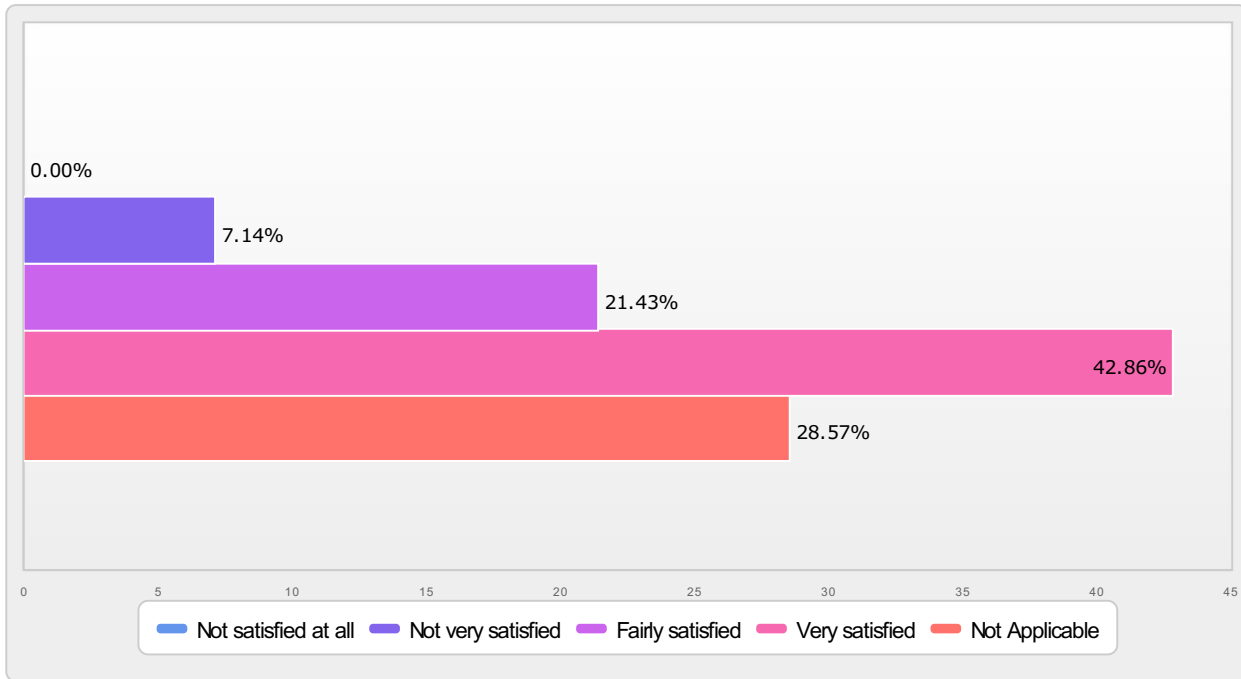
**Q1b - If applicable in your municipality, overall, how satisfied were you with...  
The Internet voting process?**

Not satisfied at all	0	0.00%
Not very satisfied	0	0.00%
Fairly satisfied	4	30.77%
Very satisfied	8	61.54%
Not Applicable	1	7.69%
<b>Total</b>	<b>13</b>	<b>100.00%</b>



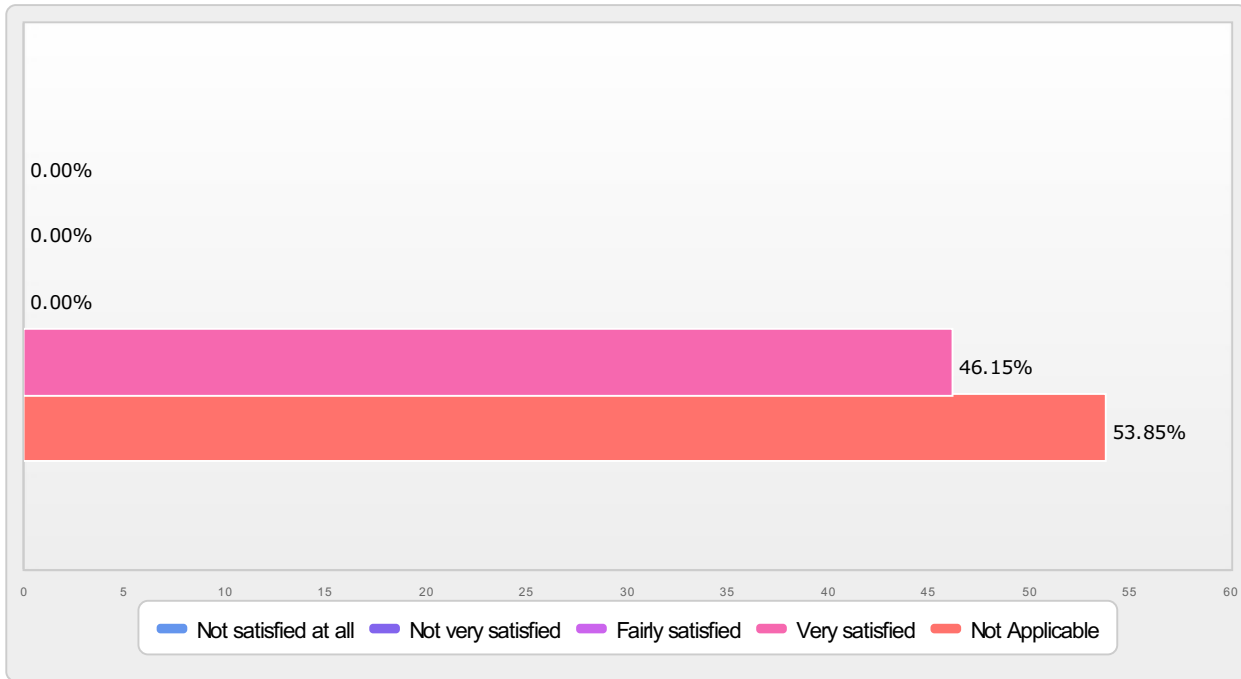
**Q1c - If applicable in your municipality, overall, how satisfied were you with...  
The telephone voting process?**

Not satisfied at all	0	0.00%
Not very satisfied	1	7.14%
Fairly satisfied	3	21.43%
Very satisfied	6	42.86%
Not Applicable	4	28.57%
<b>Total</b>	<b>14</b>	<b>100.00%</b>



**Q1d - If applicable in your municipality, overall, how satisfied were you with...**  
**The in-person voting process?**

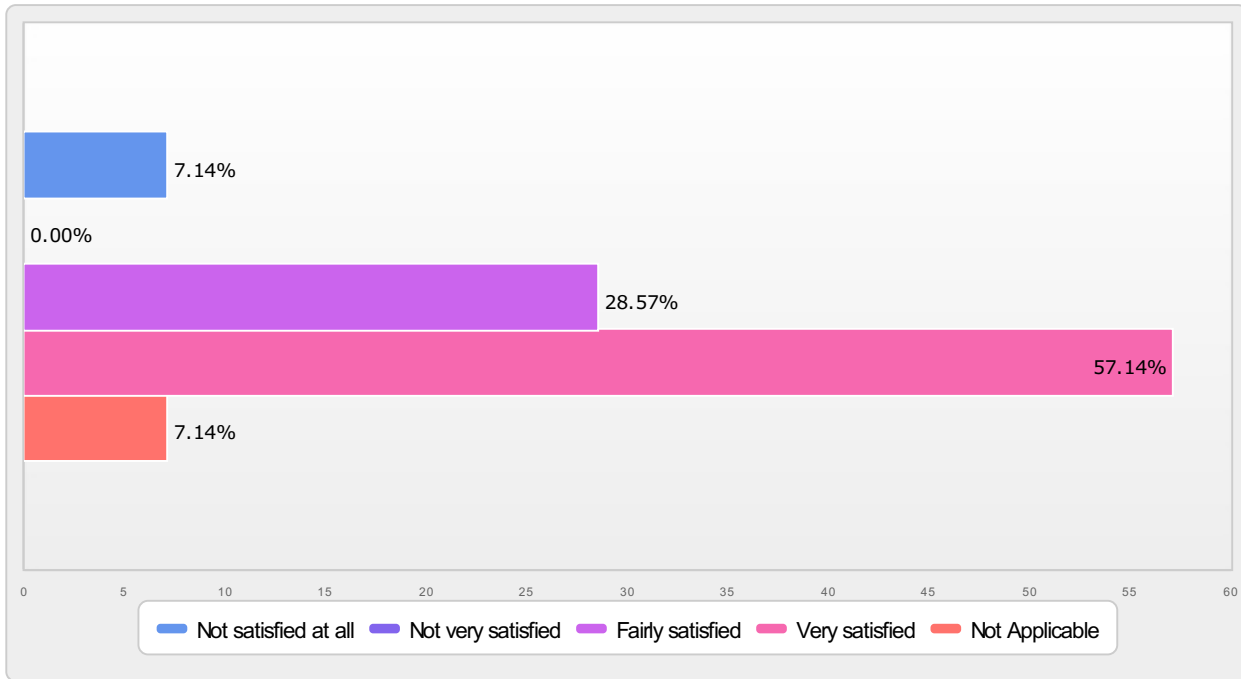
Not satisfied at all	0	0.00%
Not very satisfied	0	0.00%
Fairly satisfied	0	0.00%
Very satisfied	6	46.15%
Not Applicable	7	53.85%
<b>Total</b>	<b>13</b>	<b>100.00%</b>





**Q1e - If applicable in your municipality, overall, how satisfied were you with...  
The Early Voting Period opportunities?**

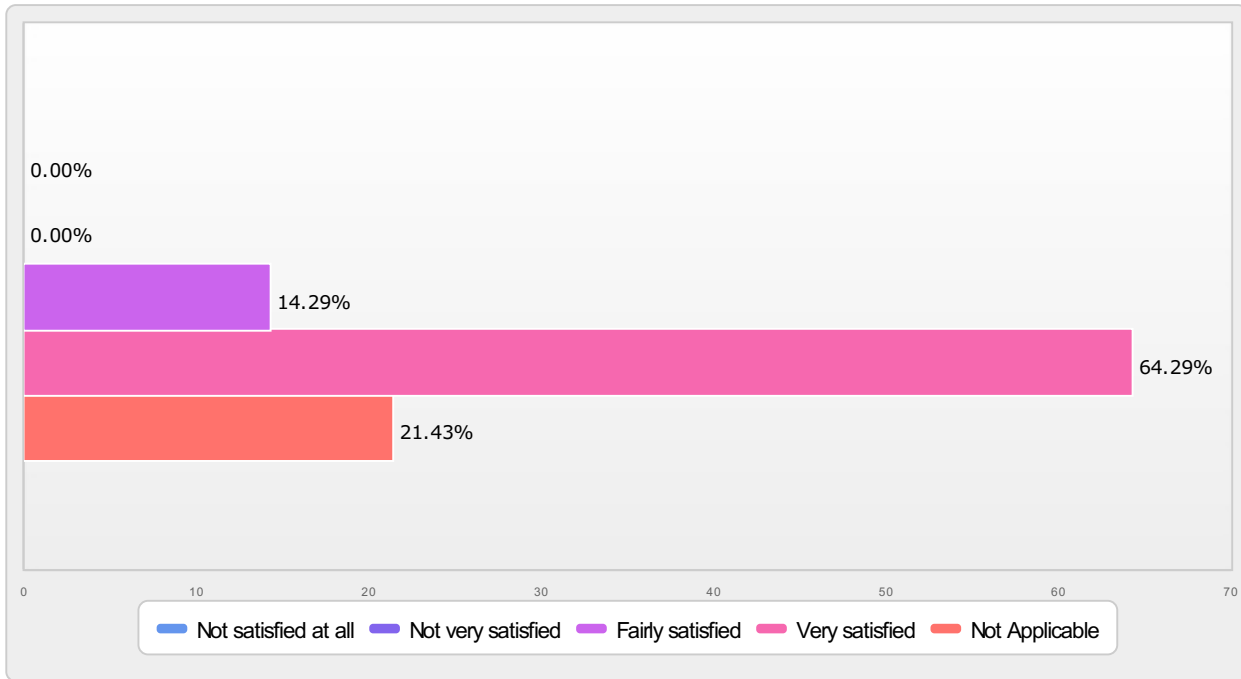
Not satisfied at all	1	7.14%
Not very satisfied	0	0.00%
Fairly satisfied	4	28.57%
Very satisfied	8	57.14%
Not Applicable	1	7.14%
<b>Total</b>	<b>14</b>	<b>100.00%</b>



**Q1f - If applicable in your municipality, overall, how satisfied were you with...**

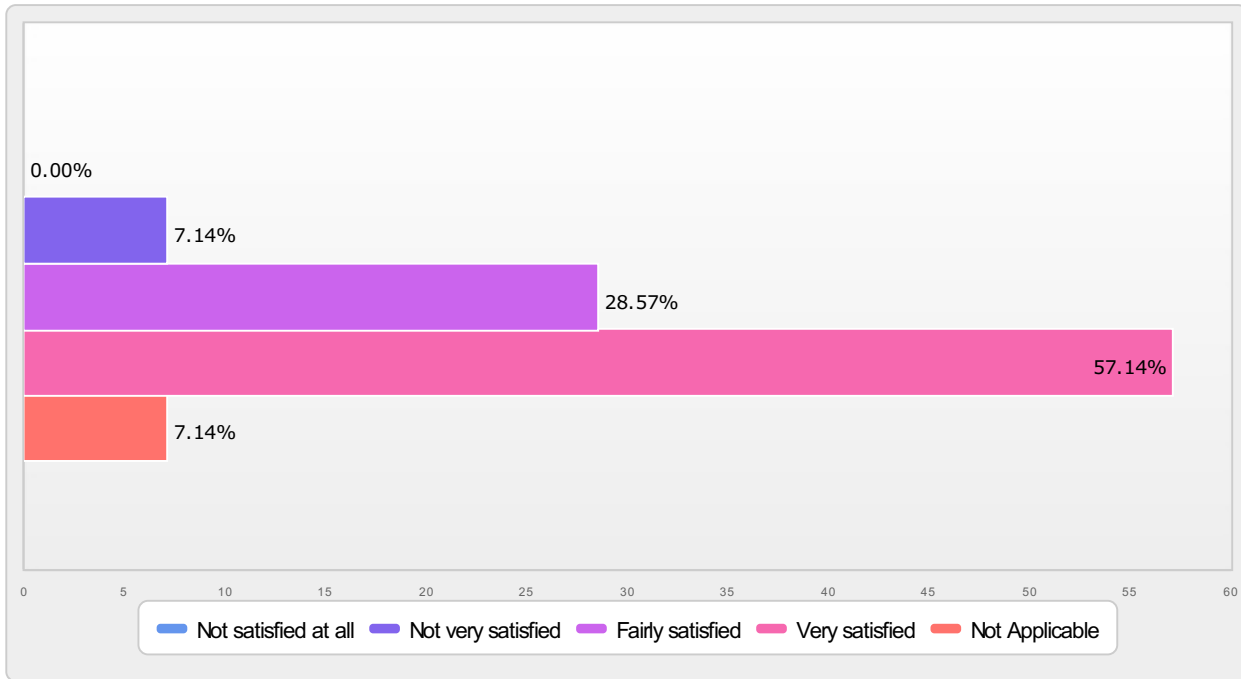
**The accessibility and diversity assistance provided for the electors at voting places?**

Not satisfied at all	0	0.00%
Not very satisfied	0	0.00%
Fairly satisfied	2	14.29%
Very satisfied	9	64.29%
Not Applicable	3	21.43%
<b>Total</b>	<b>14</b>	<b>100.00%</b>



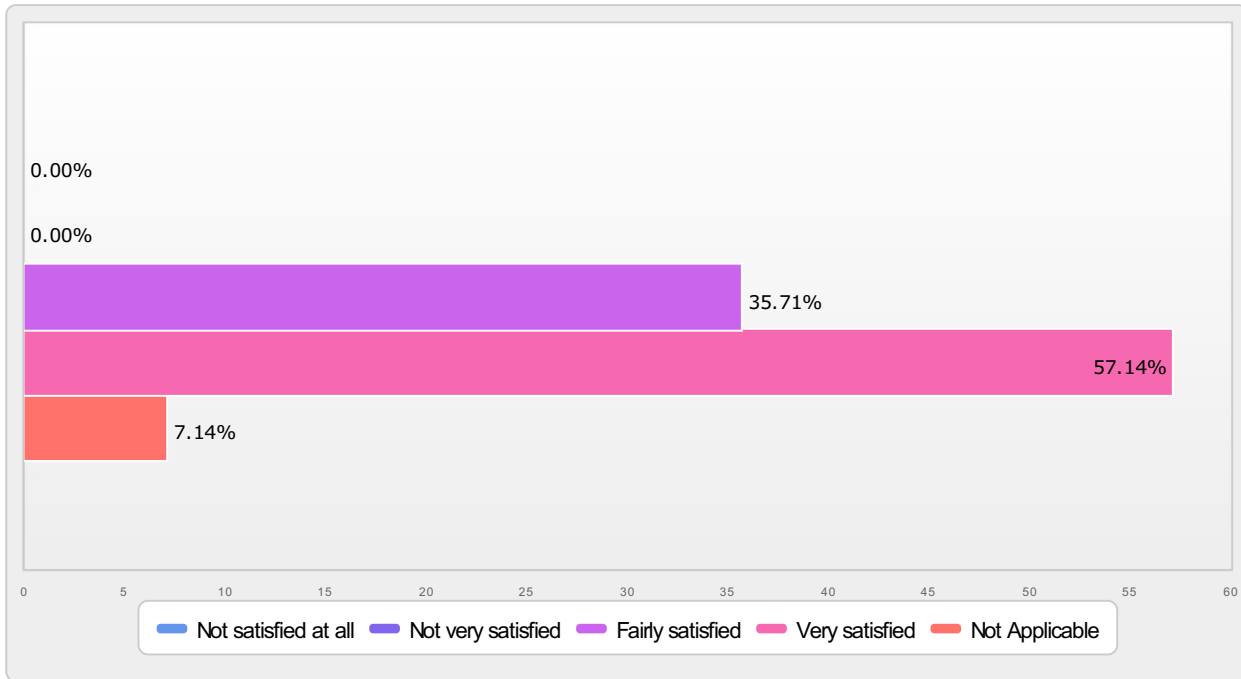
**Q1g - If applicable in your municipality, overall, how satisfied were you with...  
Municipality's Voter Awareness Campaign?**

Not satisfied at all	0	0.00%
Not very satisfied	1	7.14%
Fairly satisfied	4	28.57%
Very satisfied	8	57.14%
Not Applicable	1	7.14%
<b>Total</b>	<b>14</b>	<b>100.00%</b>



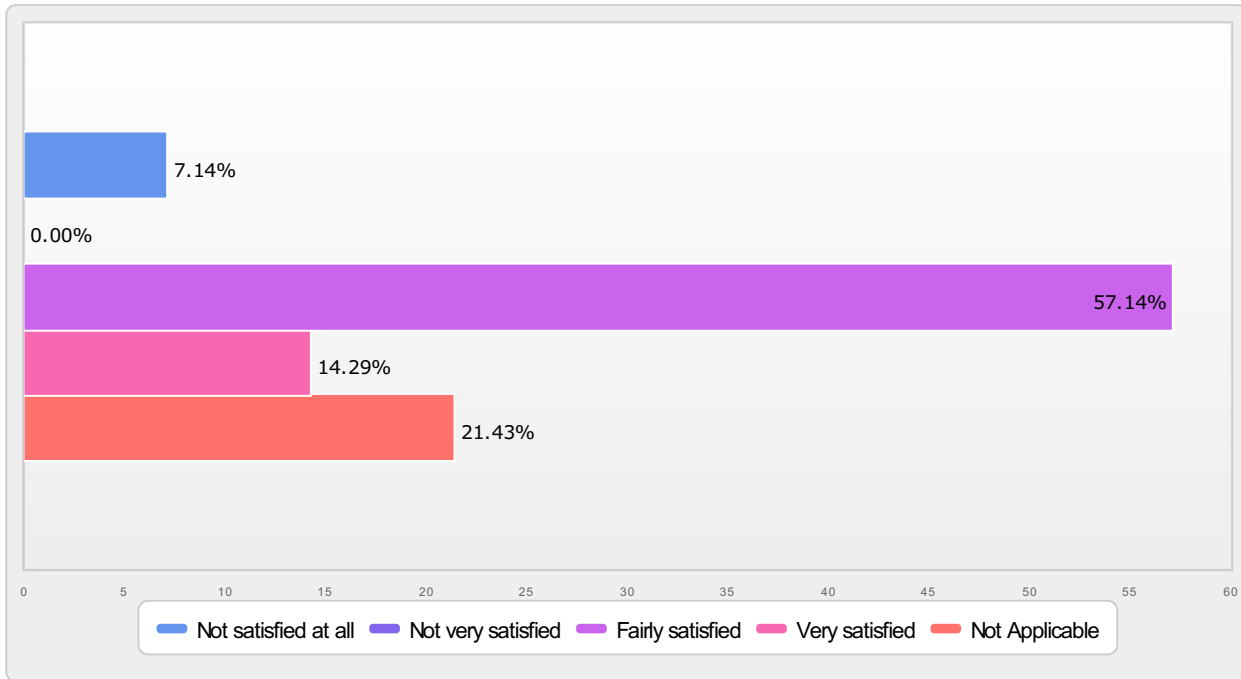
**Q1h - If applicable in your municipality, overall, how satisfied were you with...  
The Municipal website?**

Not satisfied at all	0	0.00%
Not very satisfied	0	0.00%
Fairly satisfied	5	35.71%
Very satisfied	8	57.14%
Not Applicable	1	7.14%
<b>Total</b>	<b>14</b>	<b>100.00%</b>



**Q1i - If applicable in your municipality, overall, how satisfied were you with...  
Candidate Information Sessions/ Events?**

Not satisfied at all	1	7.14%
Not very satisfied	0	0.00%
Fairly satisfied	8	57.14%
Very satisfied	2	14.29%
Not Applicable	3	21.43%
<b>Total</b>	<b>14</b>	<b>100.00%</b>



**Q1j - If applicable in your municipality, overall, how satisfied were you with...  
The materials provided (e.g. Candidate's Guide, maps, etc.)?**

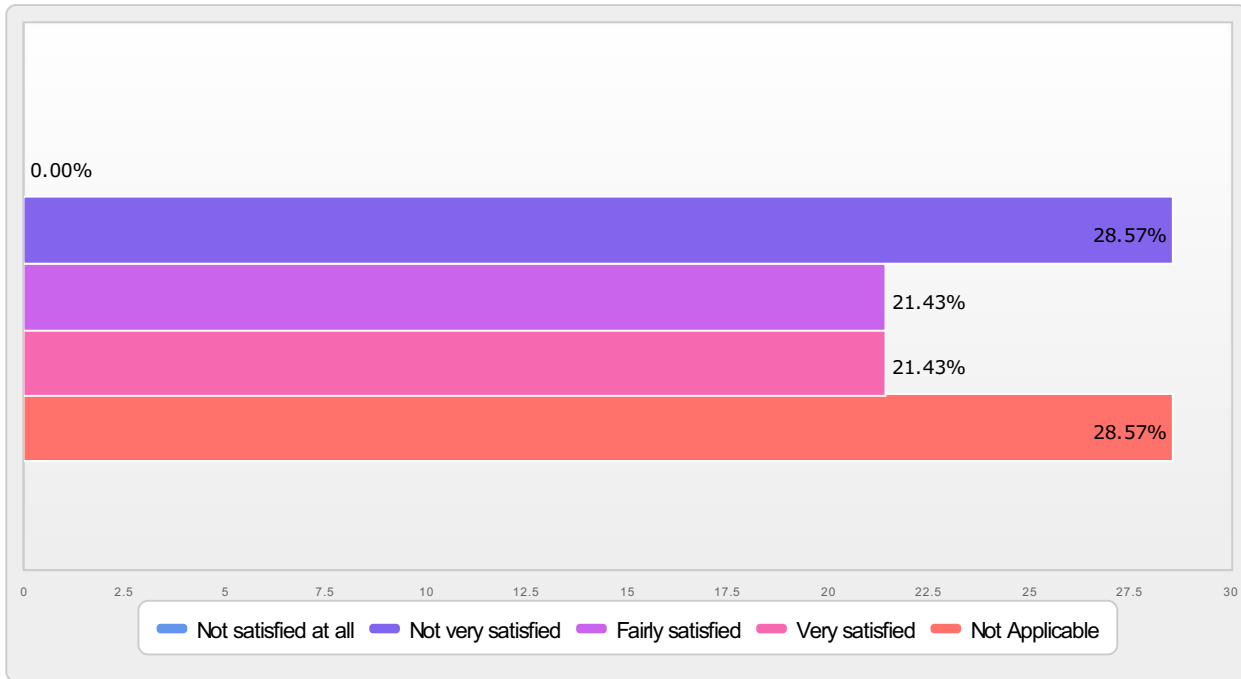
Not satisfied at all	0	0.00%
Not very satisfied	0	0.00%
Fairly satisfied	6	42.86%
Very satisfied	7	50.00%
Not Applicable	1	7.14%
<b>Total</b>	<b>14</b>	<b>100.00%</b>



**Q1k - If applicable in your municipality, overall, how satisfied were you with...**

**The quality of the Voters' List?**

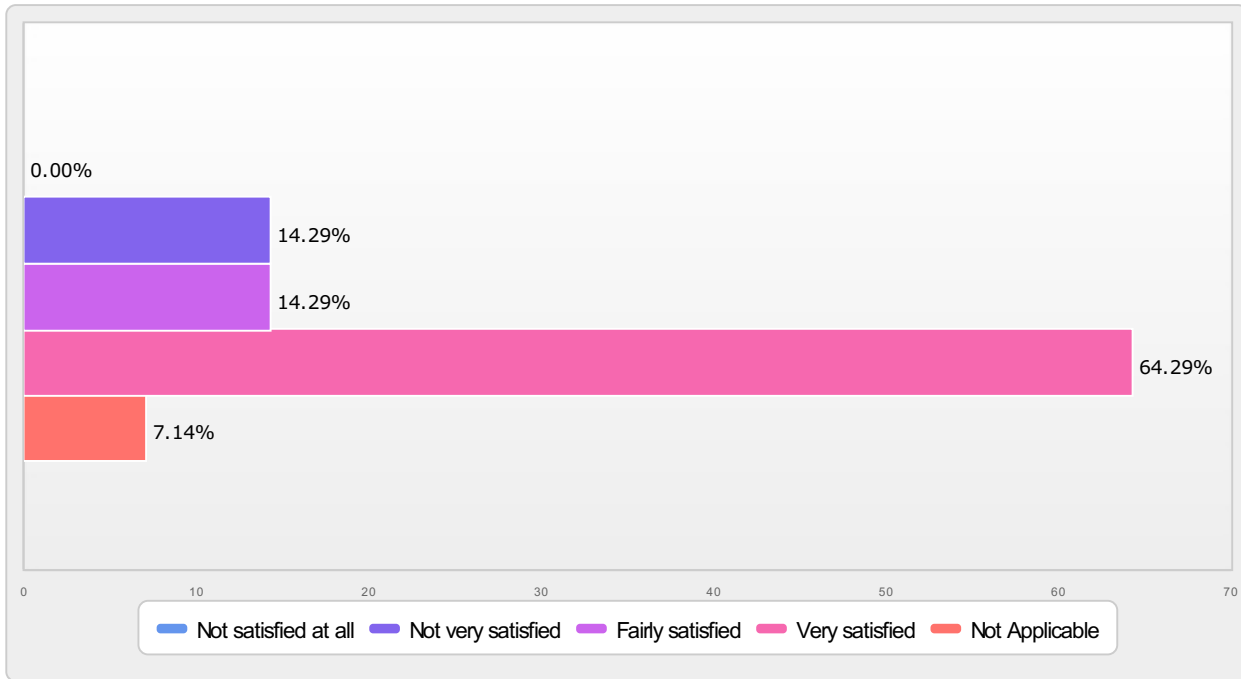
Not satisfied at all	0	0.00%
Not very satisfied	4	28.57%
Fairly satisfied	3	21.43%
Very satisfied	3	21.43%
Not Applicable	4	28.57%
<b>Total</b>	<b>14</b>	<b>100.00%</b>



**Q11 - If applicable in your municipality, overall, how satisfied were you with...**

**The security of the election?**

Not satisfied at all	0	0.00%
Not very satisfied	2	14.29%
Fairly satisfied	2	14.29%
Very satisfied	9	64.29%
Not Applicable	1	7.14%
<b>Total</b>	<b>14</b>	<b>100.00%</b>

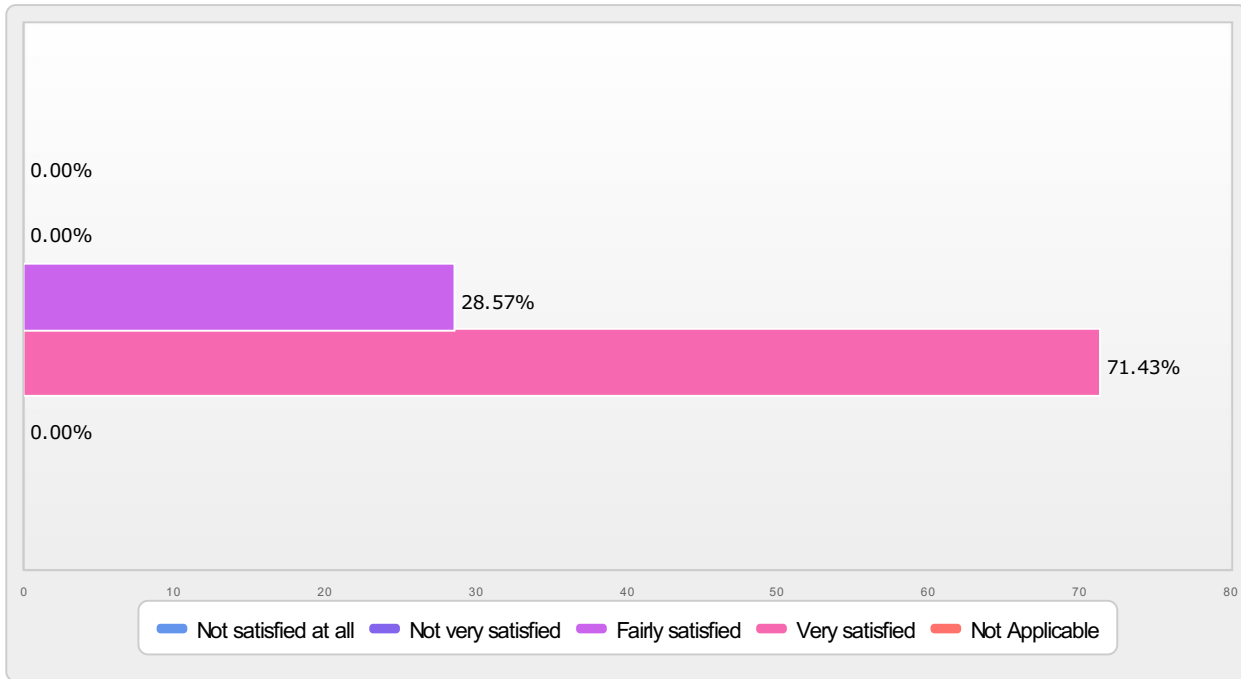




**Q1m - If applicable in your municipality, overall, how satisfied were you with...**

**The response time and service from the Election and Clerk's Office staff?**

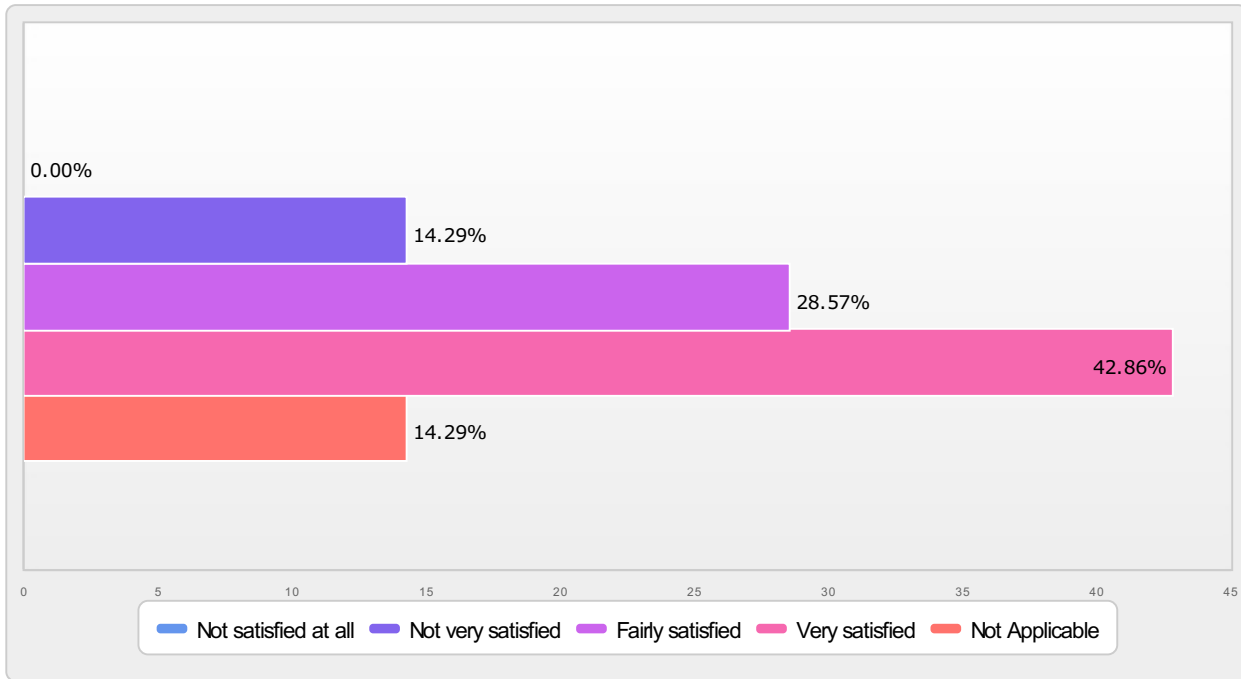
Not satisfied at all	0	0.00%
Not very satisfied	0	0.00%
Fairly satisfied	4	28.57%
Very satisfied	10	71.43%
Not Applicable	0	0.00%
<b>Total</b>	<b>14</b>	<b>100.00%</b>



**Q1n - If applicable in your municipality, overall, how satisfied were you with...**

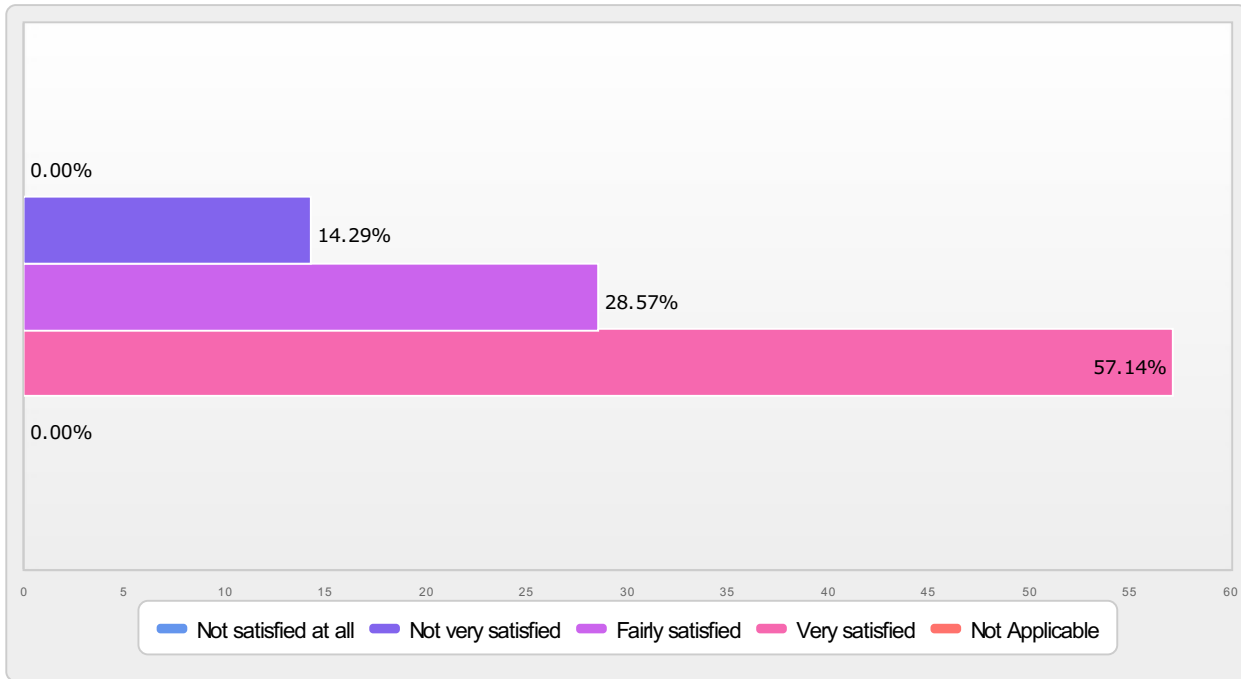
**The application and enforcement of Municipality's Election Sign Bylaw?**

Not satisfied at all	0	0.00%
Not very satisfied	2	14.29%
Fairly satisfied	4	28.57%
Very satisfied	6	42.86%
Not Applicable	2	14.29%
<b>Total</b>	<b>14</b>	<b>100.00%</b>



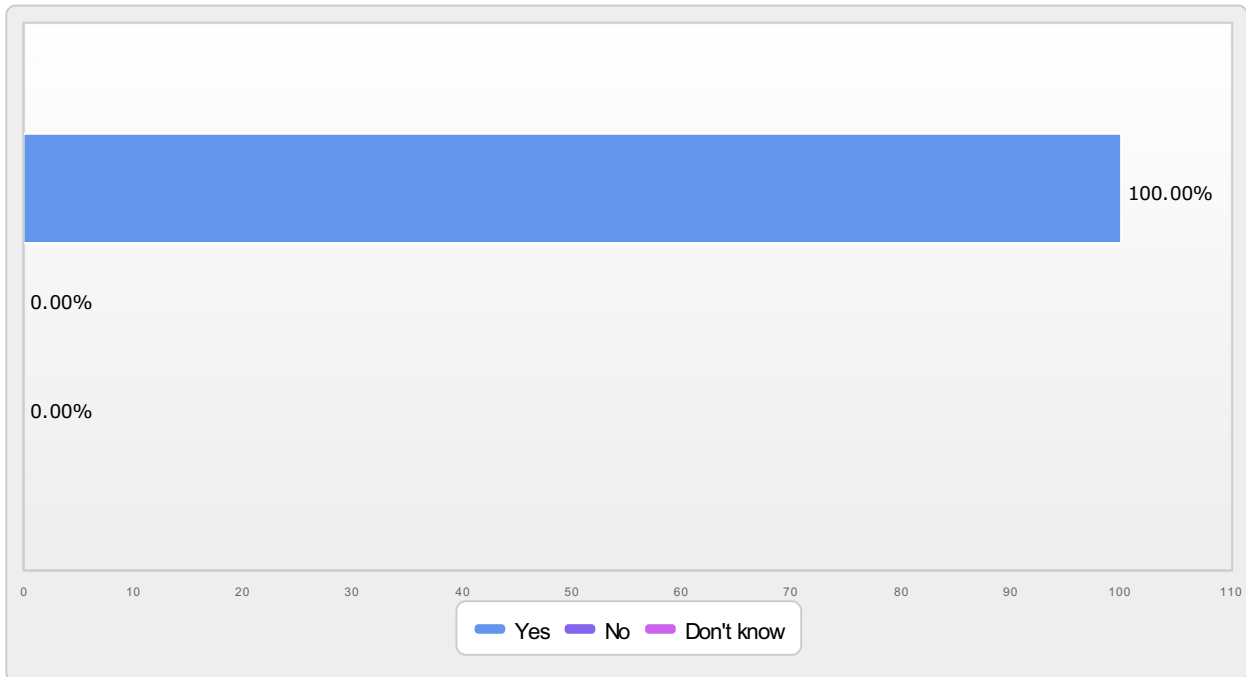
**Q1o - If applicable in your municipality, overall, how satisfied were you with...  
The posting of election results?**

Not satisfied at all	0	0.00%
Not very satisfied	2	14.29%
Fairly satisfied	4	28.57%
Very satisfied	8	57.14%
Not Applicable	0	0.00%
<b>Total</b>	<b>14</b>	<b>100.00%</b>



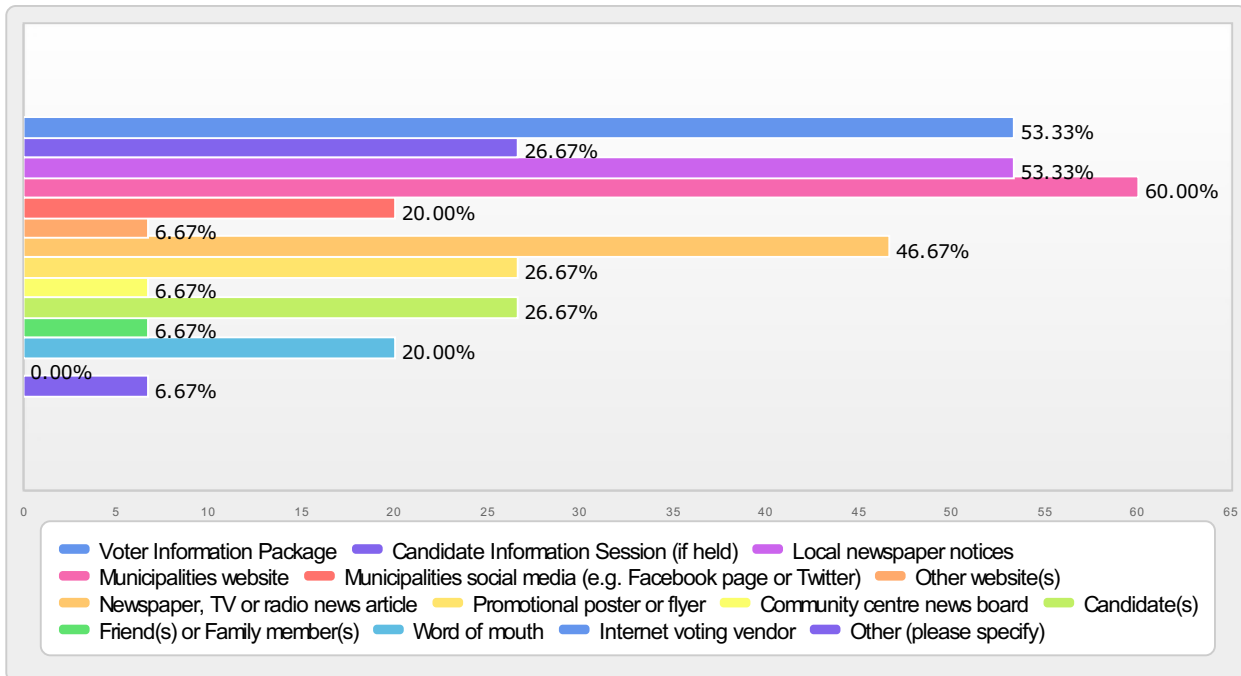
Q2a - Before taking this survey, were you aware that Internet voting was available in the 2014 Municipal election in Municipality?

Yes	15	100.00%
No	0	0.00%
Don't know	0	0.00%
<b>Total</b>	<b>15</b>	<b>100.00%</b>



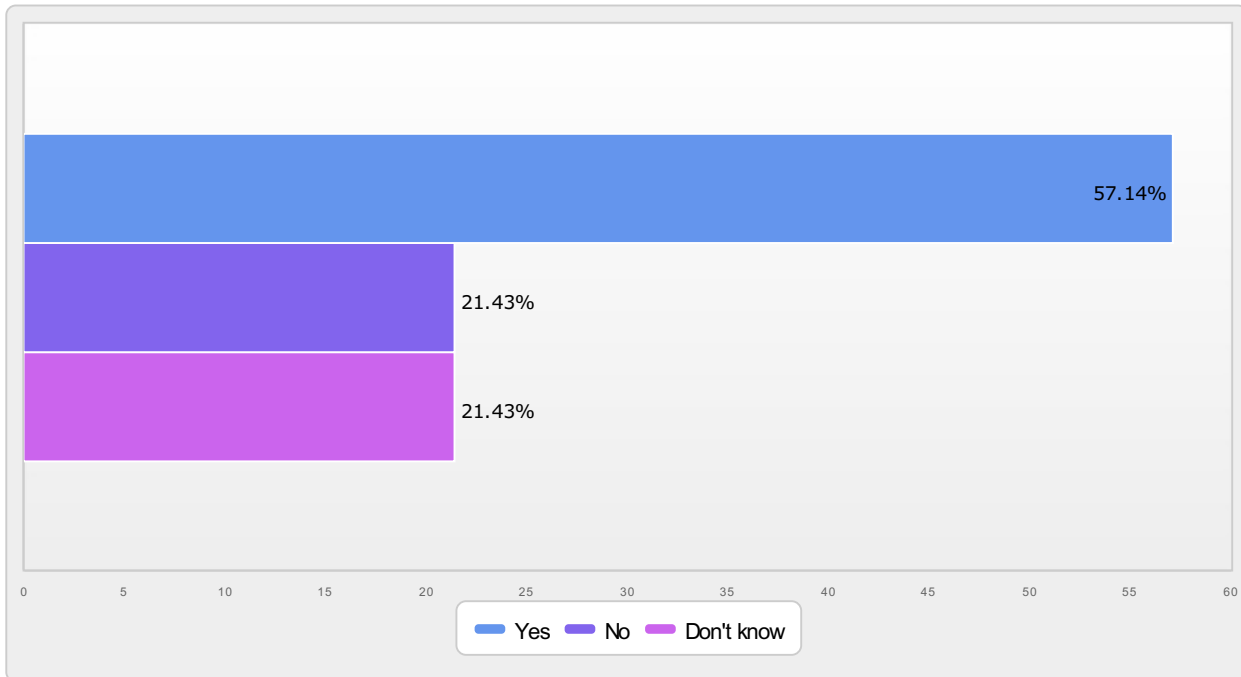
**Q2b - How did you hear about Internet voting for the 2014 Municipal Election?**

Voter Information Package	8	53.33%
Candidate Information Session (if held)	4	26.67%
Local newspaper notices	8	53.33%
Municipalities website	9	60.00%
Municipalities social media (e.g. Facebook page or Twitter)	3	20.00%
Other website(s)	1	6.67%
Newspaper, TV or radio news article	7	46.67%
Promotional poster or flyer	4	26.67%
Community centre news board	1	6.67%
Candidate(s)	4	26.67%
Friend(s) or Family member(s)	1	6.67%
Word of mouth	3	20.00%
Internet voting vendor	0	0.00%
Other (please specify)	1	6.67%
<b>Total</b>	<b>15</b>	<b>100.00%</b>



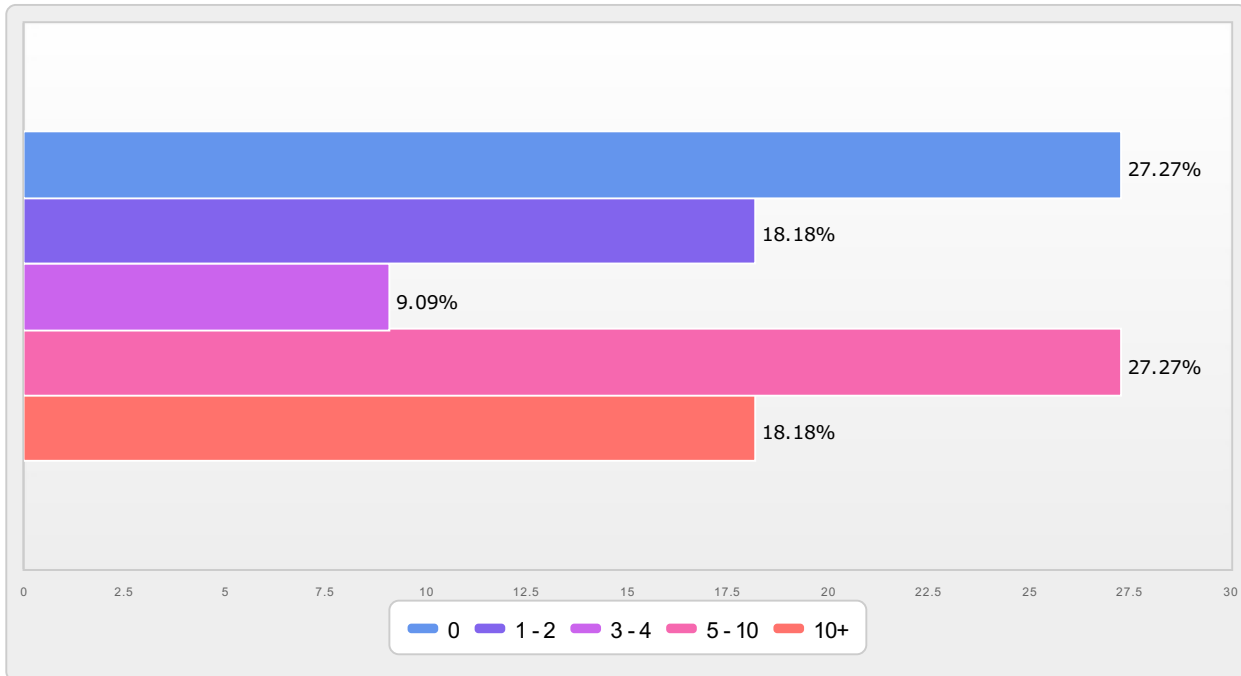
**Q3a - Would you say that Internet voting had an affect on your campaign?**

Yes	8	57.14%
No	3	21.43%
Don't know	3	21.43%
<b>Total</b>	<b>14</b>	<b>100.00%</b>



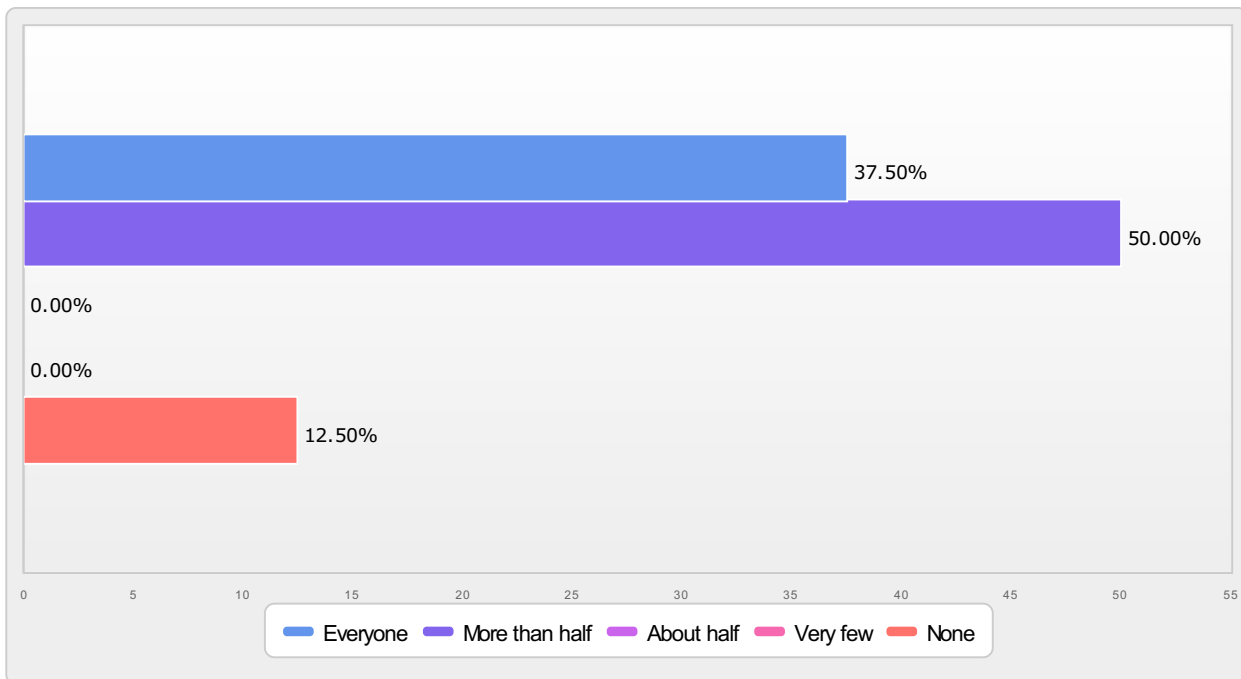
Q4a - When campaigning (e.g. canvassing door-to-door, campaign functions, etc.) how many people did you encounter that had already voted?

0	3	27.27%
1 - 2	2	18.18%
3 - 4	1	9.09%
5 - 10	3	27.27%
10+	2	18.18%
<b>Total</b>	<b>11</b>	<b>100.00%</b>



**Q4b - How many of these people indicated they had voted online?**

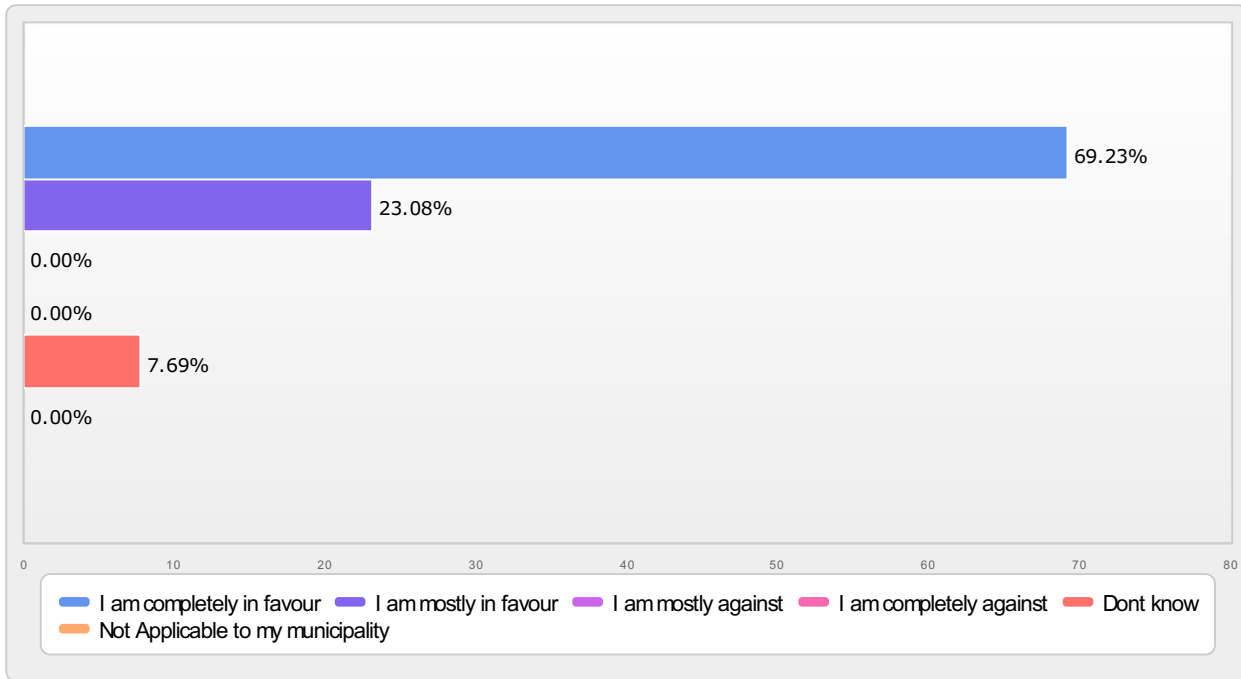
Everyone	3	37.50%
More than half	4	50.00%
About half	0	0.00%
Very few	0	0.00%
None	1	12.50%
<b>Total</b>	<b>8</b>	<b>100.00%</b>





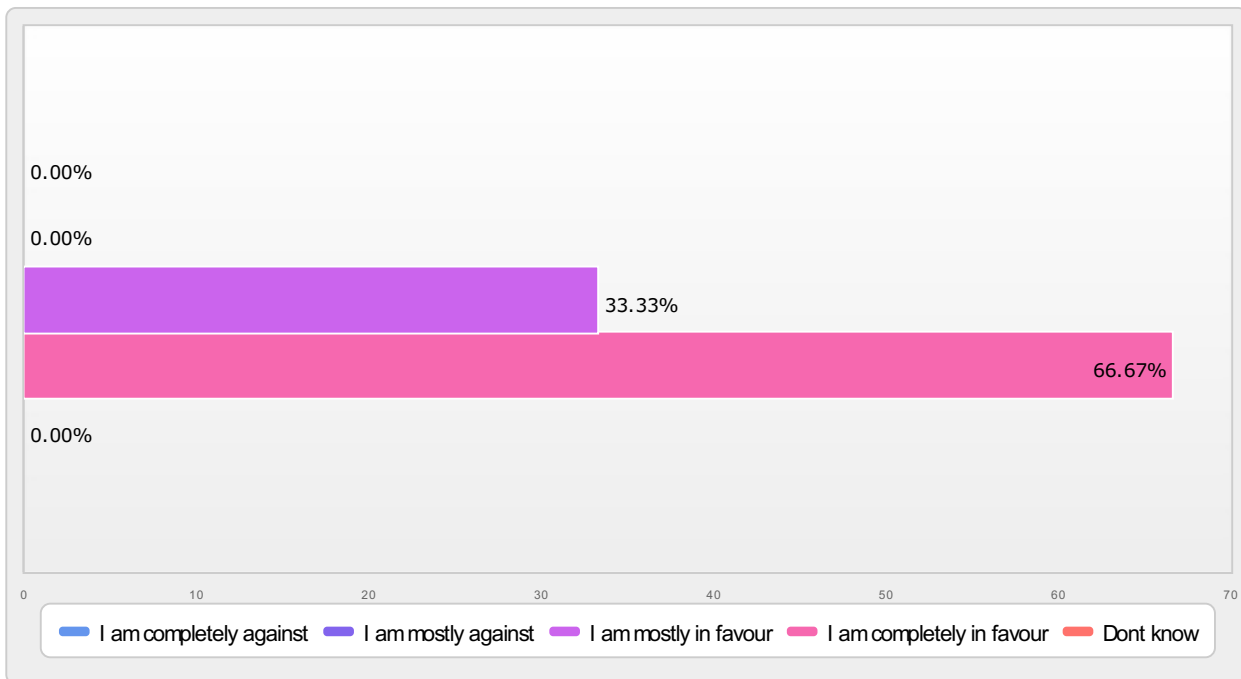
**Q5aa - How do you feel about having telephone voting as an additional voting method?**

I am completely in favour	9	69.23%
I am mostly in favour	3	23.08%
I am mostly against	0	0.00%
I am completely against	0	0.00%
Dont know	1	7.69%
Not Applicable to my municipality	0	0.00%
<b>Total</b>	<b>13</b>	<b>100.00%</b>



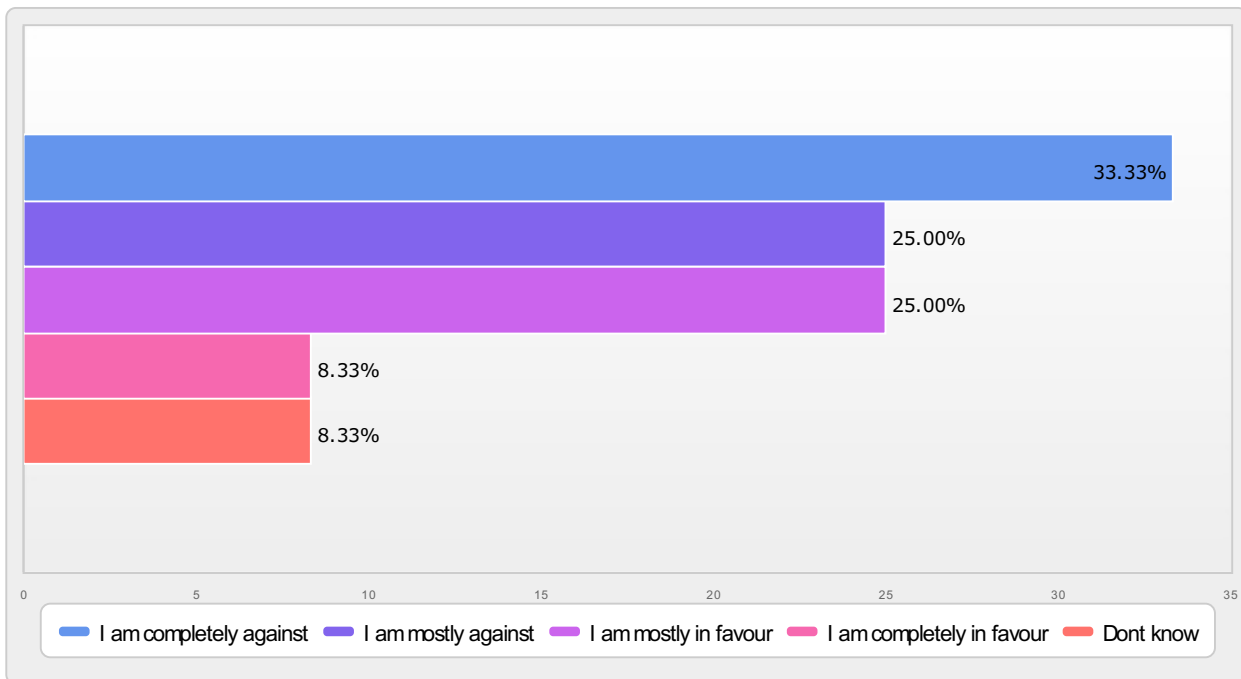
**Q5a - How do you feel about having Internet voting as an additional voting method?**

I am completely against	0	0.00%
I am mostly against	0	0.00%
I am mostly in favour	4	33.33%
I am completely in favour	8	66.67%
Dont know	0	0.00%
<b>Total</b>	<b>12</b>	<b>100.00%</b>



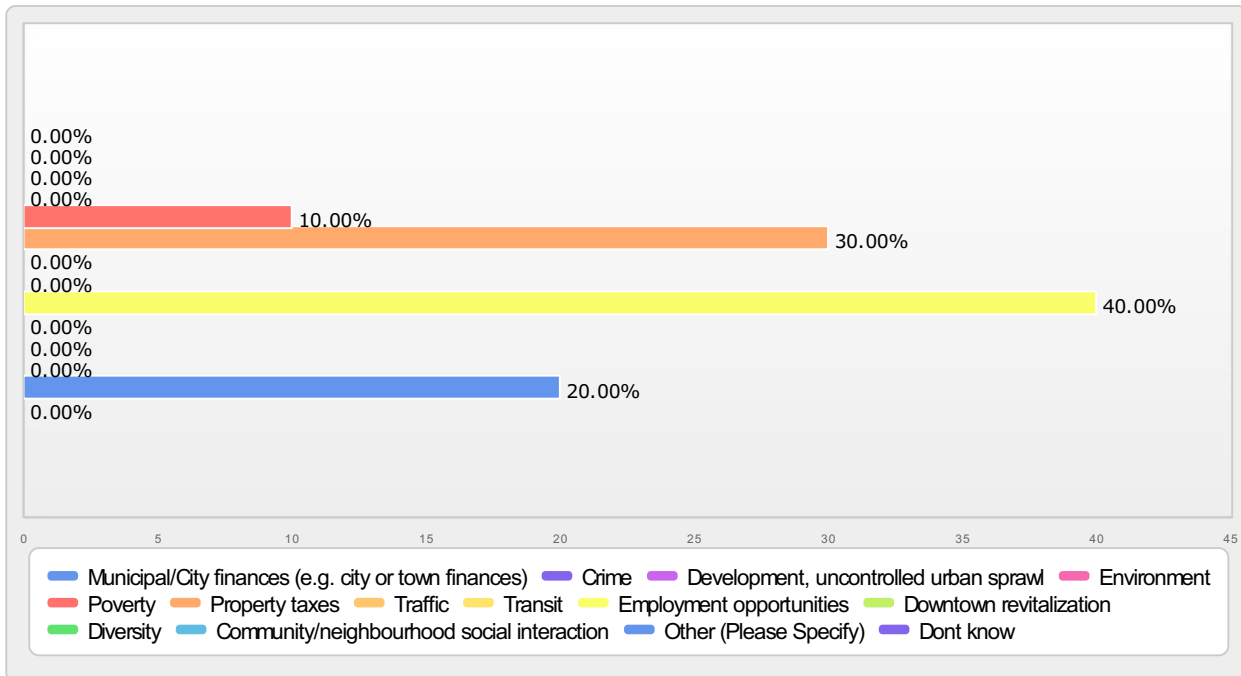
**Q5b - How would you feel about having Internet voting as the only method of voting?**

I am completely against	4	33.33%
I am mostly against	3	25.00%
I am mostly in favour	3	25.00%
I am completely in favour	1	8.33%
Dont know	1	8.33%
<b>Total</b>	<b>12</b>	<b>100.00%</b>



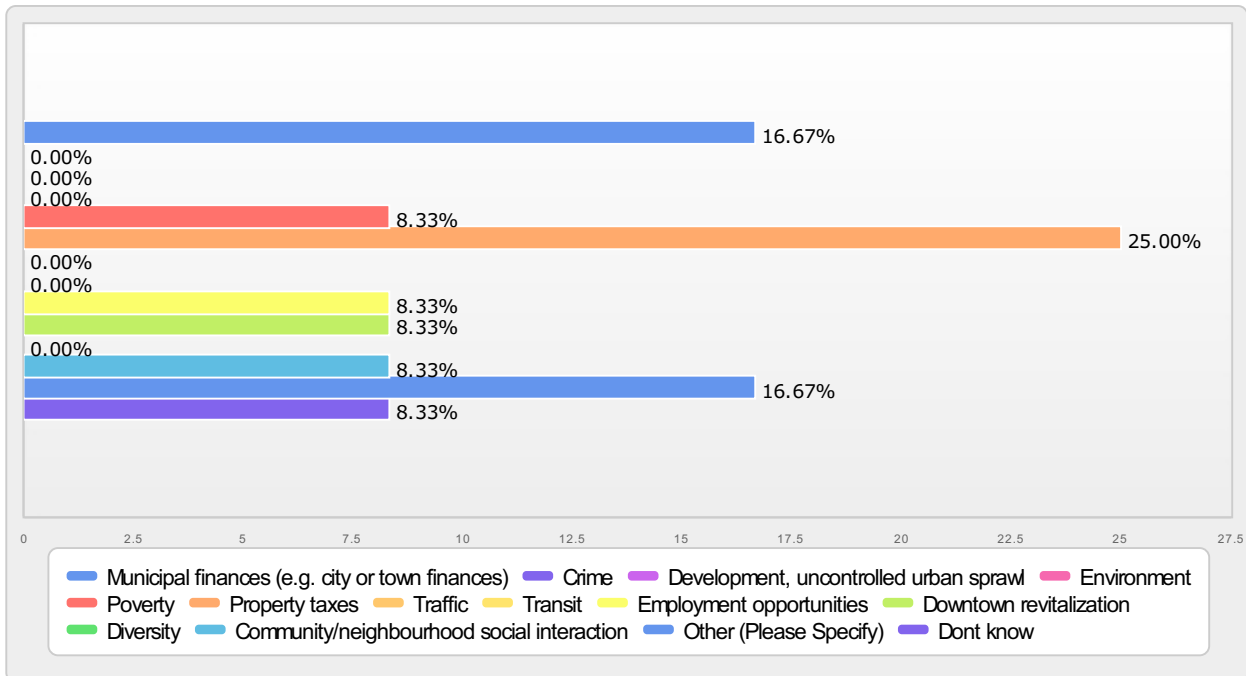
**Q6a - In your opinion, what was the most important issue in Municipality in the October 2014 Municipal Election?**

Municipal/City finances (e.g. city or town finances)	0	0.00%
Crime	0	0.00%
Development, uncontrolled urban sprawl	0	0.00%
Environment	0	0.00%
Poverty	1	10.00%
Property taxes	3	30.00%
Traffic	0	0.00%
Transit	0	0.00%
Employment opportunities	4	40.00%
Downtown revitalization	0	0.00%
Diversity	0	0.00%
Community/neighbourhood social interaction	0	0.00%
Other (Please Specify)	2	20.00%
Dont know	0	0.00%
<b>Total</b>	<b>10</b>	<b>100.00%</b>



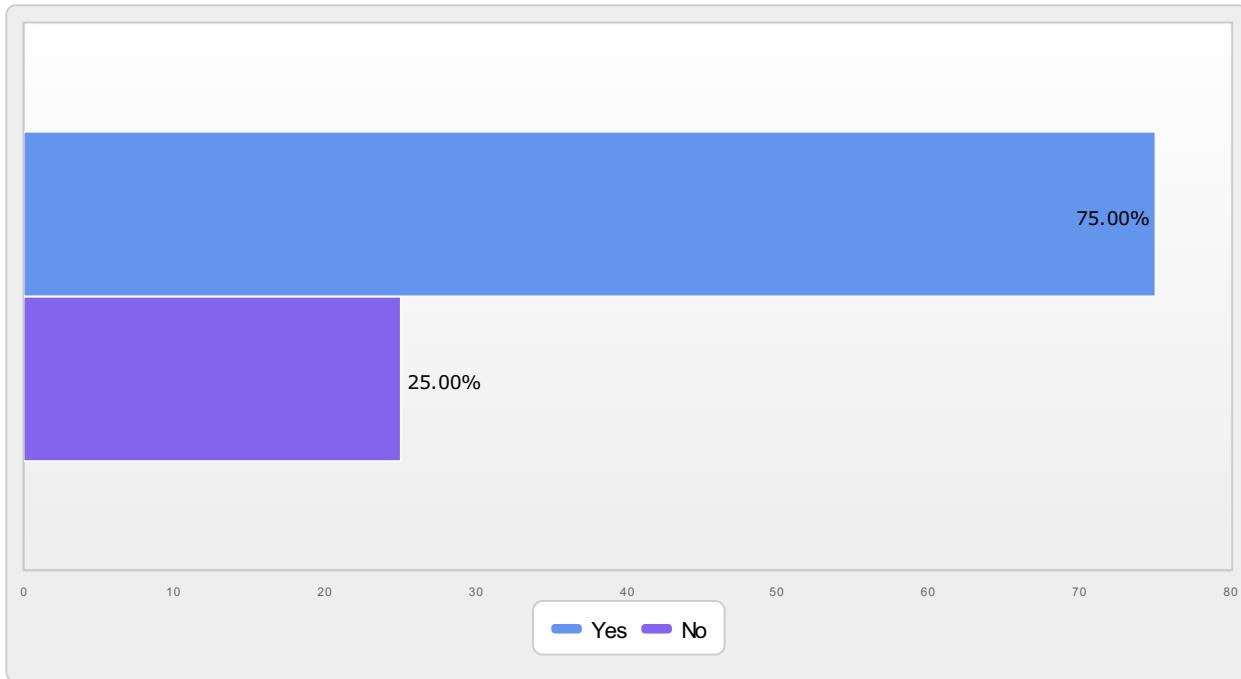
**Q6b - In Municipality, which issue received the most attention in the October 2014 Municipal Election?**

Municipal finances (e.g. city or town finances)	2	16.67%
Crime	0	0.00%
Development, uncontrolled urban sprawl	0	0.00%
Environment	0	0.00%
Poverty	1	8.33%
Property taxes	3	25.00%
Traffic	0	0.00%
Transit	0	0.00%
Employment opportunities	1	8.33%
Downtown revitalization	1	8.33%
Diversity	0	0.00%
Community/neighbourhood social interaction	1	8.33%
Other (Please Specify)	2	16.67%
Dont know	1	8.33%
<b>Total</b>	<b>12</b>	<b>100.00%</b>



Q17b - In the 2014 Municipal Election did you win election in your area?

Yes	9	75.00%
No	3	25.00%
<b>Total</b>	<b>12</b>	<b>100.00%</b>





25 February 2017

## City Council Committee Report

**To: Mayor and Council**

**Fr: Karen Brown, CAO**

**Re: Kenora Airport Authority Request**

### **Recommendation:**

That Council hereby approves a combined grant commitment to the Kenora Airport Authority of \$500,000 to be funded through the City's Contingency Reserve, payable in equal instalments in the years 2017 and 2018; and further

That Council hereby approves a guarantee of external financing for the Kenora Airport Authority up to a maximum of \$1 million with a maximum term of thirteen years, with no more than the first three years being on an interest only basis, and thereafter amortized over a 10 year period.

### **Background:**

The Kenora Airport Authority (KAA) appeared before Council at the February 21, 2017 Special Committee of the Whole to request funding support for the construction of a new terminal building. The original request made was for a grant in the amount of \$750,000, together with a loan from the City to the KAA, also in the amount of \$750,000. A copy of the request made to Council is attached for reference purposes. This matter was discussed by Council at that meeting with the minutes reflecting the following:

*Council supported the \$1M loan with the preference to guarantee, or to come from the Citizens Prosperity Trust Fund if need be, and further support a \$250,000 grant for 2017 and a \$250,000 grant for 2018 for the development of the new terminal at the Kenora Airport.*

The KAA requires formal approval to move forward with their project. The intent of this report is to provide Council with a formal resolution to reflect the discussion at that meeting, together with providing some clarity to the terms of the City's debt guarantee.

The Chairman of the KAA was contacted to confirm the terms upon which the debt would be repaid. Based on that conversation, the KAA is seeking an interest only debt for the first few years (a maximum of three years is being recommended), followed by an amortization of the debt over a ten year period. These terms are considered reasonable and have been incorporated into the resolution being brought before Council.

### **Budget / Financial Implications:**

The combined grant of \$500,000, payable in equal payments over 2017 and 2018, will be taken from the City's contingency reserve. This is to ensure that there is not a direct impact on either the City's tax rate or spending programs in either 2017 or 2018. Anticipating that the debt is paid by the KAA in accordance with the terms as negotiated

with the external financing institution, there is no budget impact related to guaranteeing the debt.

**Communication Plan/Notice By-law Requirements:**

The KAA will be advised as to Council's decision on this matter and provided with a copy of the Council resolution. A By-law will be required at a future meeting once the external financing has been arranged to execute the guarantee of the loan.

**Strategic Plan or other Guiding Document:**

City Strategic Plan – Our Vision is 20 / 20

- Fiscal Responsibility
- The City will provide clear and decisive leadership on all matters of economic growth in Kenora and the surrounding district
- Support Kenora's "North America's Premier Boating Destination" brand

**ERM Assessment:**

There is a high governance and financial risk with regards to the potential of the City being required to take over the operations of the KAA.

There is a moderate to high operational risk with regards to the KAA not being able to move forward with the construction of the new terminal and the resulting ramifications to their planned operations moving forward.

There is a low financial risk with regards to the failure of the KAA to meet their obligations with regards to the external financing.





# Kenora Airport Authority Inc.

Box 469, Kenora, Ontario P9N 3X5  
Phone (807) 548-5377 Fax (807) 548-1460

## KENORA AIRPORT PROJECTS

Design and Engineering	\$ 500,000.00
Terminal Building (FBO, Canada Customs, Terminal)	6,200,000.00
Runway and approach lighting upgrade and renewal to LED	1,200,000.00
New loader and attachments	290,000.00
Total	\$ 8,190,000.00
Funding to Date:	
NOHFC	\$ 450,000.00
Federal Gov't Small Communities Fund - Terminal bldg	2,076,000.00
Province of Ontario - Terminal bldg	2,076,000.00
Federal Gov't - ACAP - Runway upgrade	1,200,000.00
Federal Gov't - ACAP - Equipment upgrade	290,000.00
Total	(\$ 6,092,000.00)
	(\$ 2,098,000.00)
Kenora Airport Authority Reserve fund and operating	(600,000.00)
Shortage	(\$ 1,498,000.00)



March 14, 2017

## City Council Committee Report

**To: Mayor and Council**

**Fr: Natalie Pearson, Deputy Treasurer**

**Re: Asset Management Plan for the City of Kenora**

### **Recommendation:**

That Council hereby approves the 2016 Asset Management Plan for the City of Kenora as prepared by Public Sector Digest; and further

That Administration continue to improve the data underlying the plan and strategies with which to manage the City's infrastructure.

### **Background:**

The City of Kenora's existing infrastructure is aging while demands are growing for better roads, bridges, sidewalks and water and sewer systems. The demands are in response to higher standards of safety, health, environmental protection, regulations and to some degree, growth.

The Minister of Infrastructure, Province of Ontario recognizes that the province has a role in meeting these infrastructure challenges. To work towards standardization and consistency in municipal asset management, the Minister has required that Ontario municipalities develop and implement an asset management plan that includes all tangible capital asset reported in Schedule 51 of the Financial Information Return by December 31, 2016 in order to continue receiving Federal Gas Tax funding. Municipalities must also demonstrate progress by reporting annually on asset management outcome indicators.

Kenora's Asset Management Plan as prepared by Public Sector Digest meets the requirements set out by the Minister of Infrastructure, Province of Ontario. This is a living document that will require constant updating and improvement.

**Budget:** Administration plans to use current resources for the review, updating and improvements under this plan unless provincial funding specific to the assets covered within this plan becomes available.

### **Risk Analysis:**

Financial – the risk related to ongoing capital requirements has been assessed as high to critical, mitigated through a strong asset management plan to identify the right assets to replace at the right time to make the best use of our dollars.

Operations – the infrastructure deficit and need to ensure reliable infrastructure and ongoing capital programs has been assessed as critical, mitigated through the creation of a strong asset management plan.

**Communication Plan/Notice By-law Requirements:** The Asset Management Plan will be forwarded as required with any infrastructure funding applications made by the City of Kenora.

**Strategic Plan or other Guiding Document:** Strategic Plan Corporate Actions 2-1 and 2-2.



March 2, 2017

## City Council Committee Report

**TO: Mayor and Council**

**FR: Sharen McDowall, Human Resources Strategist**

**RE: CUPE Local 191 – Memorandum of Agreement**

### **Recommendation:**

That Council of the City of Kenora hereby approves the Memorandum Agreement between the Corporation of the City of Kenora and the Canadian Union of Public Employees (CUPE) Local 191 for the term January 1, 2016 to December 31, 2019; and further

That Council hereby approves an amendment to the 2016 operating budget to appropriate from the City's Contingency Reserve to fund the incremental wage and benefit costs for 2016 negotiated settlement with CUPE Local 191; and further

That in accordance with Notice By-law Number 144-2007, public notice is hereby given that Council intends to amend its 2016 Municipal Operating Budget by by-law at its March 21, 2017 meeting; and further

That Council hereby gives three readings to a by-law to amend the 2016 budget for this purpose.

### **Background:**

The parties entered into negotiations on June 8, 2016 with the exchange of proposals. The parties met on four occasions during the month of June with positive progress with negotiations.

Due to the unexpected departure of two National Representative's during negotiations, the bargaining process was delayed. A final negotiation meeting with the Union was on February 21, 2017, and at this meeting the parties signed a tentative agreement subject to ratification by the membership and approval by Council.

The parties agreed to clean up language on numerous articles along with amendment to hours of work to 7 day operations.

The following economic increases are recommended:

January 1, 2016 – 1.7%

January 1, 2017 – 1.3%

January 1, 2018 – 1.5%

January 1, 2019 – 1.5%

**Budget:** Amendment to the 2016 operating budget from the City's Contingency Reserve to fund the incremental costs for 2016. 2017, 2018 and 2019 budget will reflect the approved increases for those years.

**Communication Plan/Notice By-law Requirements:** Payroll will be advised of approval for implementation and processing of the economic rate increase for 2016 and 2017. A meeting will be held with Managers and Supervisors to advise of the new changes to the Collective Agreement.

**Strategic Plan or other Guiding Documents:**

Core value of Fiscal Responsibility  
Focus on our People

**ERA Assessment:**

n/a



March 6, 2017

## City Council Committee Report

**To: Mayor and Council**

**Fr: Charlotte Edie, Treasurer**

**Re: Sponsorship of Mount Evergreen Ski Club Application to Community Foundation**

### **Recommendation:**

That the Council of the City of Kenora supports Mount Evergreen Ski Club's request to name the City of Kenora as a sponsor in their application for funds through the Kenora & Lake of the Woods Regional Community Foundation from the Moffat Family grant for groomer repairs.

### **Background:**

Under prevailing income tax legislation the Kenora & Lake of the Woods Regional Community Foundation (aka Community Foundation) is restricted to providing grants to organizations that have charitable status. As a result, the Mount Evergreen Ski Club must have a sponsor to apply for grants through the Community Foundation since they do not have charitable status.

The City has provided sponsorship to many such organizations in the past including the Kenora Tennis Club and the Kenora Pickleball Club.

The application is for \$10,000.

**Budget:** There is no expected budget impact as a result of this report.

**Risk Analysis:** The risk associated with this report is a positive risk and it is low. The funding obtained by the Ski Club will be used to keep the Club open resulting in more recreation opportunities.

### **Communication Plan/Notice By-law Requirements:**

Mount Evergreen Ski Club.



February 23, 2017

## City Council Committee Report

**TO: Mayor and Council**

**FR: Jeff Hawley, Operations & Infrastructure Manager  
Biman Paudel, Water & Wastewater Division Lead**

**RE: 2016 Kenora Drinking Water System Summary Report**

### **Recommendation:**

That the Council of the City of Kenora hereby receives the 2016 Kenora Drinking Water System Summary Report, for the period January 1<sup>st</sup>, 2016 to December 31<sup>st</sup>, 2016, as prepared by Biman Paudel, Water & Wastewater Division Lead.

### **Background:**

In accordance with the Safe Drinking Water Act, 2002 – O. Reg. 170/03 under Schedule 22 it is the responsibility of the Water & Wastewater Division to provide a Summary Report of the water system to the Municipal Council no later than March 31<sup>st</sup> of each year after 2003. The Kenora Water Treatment Plant and Distribution System recorded two (2) Non-Compliance issues, and two (2) Recommendations and Best Practice issues under the Safe Drinking Water Act from January 1<sup>st</sup>, 2016 to December 31<sup>st</sup>, 2016 as identified in the Ministry of the Environment and Climate Change 2016 Water System Inspection. The attached Report, submitted by Biman Paudel, details the duration of the issue and corrective action taken to bring the City of Kenora's drinking water system into compliance.

### **Non-Compliance issues:**

1. The owner/operating authority was not in compliance with the requirement to prepare Form 2 documents as required by their Drinking Water Works Permit during the inspection period.
2. The operations and maintenance manuals did not meet the requirements of the Drinking Water Works Permit and Municipal Drinking Water License issued under Part V of the SDWA.

(No actions were sought on the above as they were dealt with before the final report)

### **Recommendations and Best Practice issues:**

1. The owner had provided security measures to protect components of the drinking water system, with exception of the following: Upon visiting the Keewatin stand pipe, the undersigned water inspector noticed discarded beer cans within the fenced area at the base of the stand pipe ladder. Portions of the west facing fence are in disrepair and a large hole exists in the east side of the fence, allowing relative ease of access to inside the fenced area.

2. The following issues were also noted during the inspection:
  - 2.1 The existence of cross-connection raised the concern that it was not an isolated issue. The MOECC advised the City of Kenora to take the necessary steps to identify existing cross-connections at private residences which are supplied City water on a seasonal basis. The MOECC encouraged the enforcement of City of Kenora By-law 168-2004 to have identified cross-connections eliminated.
  - 2.2 Operators were consistently recording times in the WTP logbook for any departures from normal operating procedures, as required; however, at present, operators are not recording the times next to all logbook entries.

The City of Kenora has received an inspection rating of 96.11% for 2016. The rating for 2015 was 91.67%. The MOECC's "Application of Risk Methodology" included within the Report states: "It is important to be aware that an inspection rating that is less than 100 percent does not mean that the drinking water from the system is unsafe. It just shows the areas where a system's operation can improve."

**Budget:** N/A

**Risk Analysis:** As per the requirements in the City's ERM Policy, there is a moderate legal risk and senior management have been informed. The risk has been mitigated by the City maintaining an awareness and compliance with provincial reporting requirements under the Safe Drinking Water Act 2002.

**Communication Plan/Notice By-law Requirements:**

Resolution required.

Distribution: J. Hawley, B. Paudel, MOECC local (Aaron Causyn)

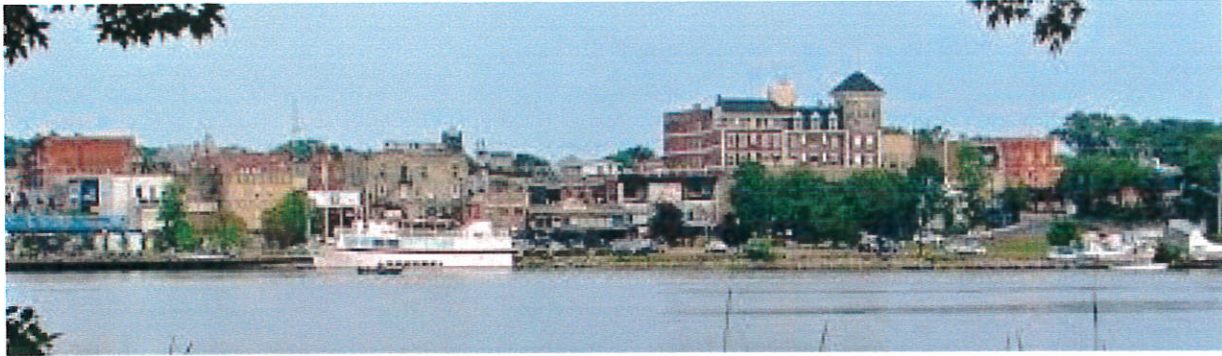
**Strategic Plan or other Guiding Document:**

Goal #2 Strengthen Our Foundations

2-1 - The City will ensure that our municipal infrastructure is maintained using available resources with the intent of moving towards all City infrastructure being in a good state of repair to ensure certainty, security and long-term stability of our systems.

2-3 - The City will ensure prompt and immediate response times supported by resilient communications in the event of system outages and other emergencies.





**Kenora Drinking Water System**  
**2016 Summary Report**



Prepared by:  
**Biman Paudel**  
**Division Lead**  
**Water and Wastewater Division**

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### **Appendix**

- List on Operators' Certificate and License.
- 2016- MOECC's Inspection Report for the Kenora Drinking Water System.
- Copy of MOECC's email on compliance of the issue.
- 2016- Annual Report including letter to Mr. and Mrs. Glen Larson (Rocky Heights).
- Certificate of Accreditation.
- Drinking Water Works Permit.
- Municipal Drinking Water Licence.
- Permit to take water.

## **Reporting Requirements of the Safe Drinking Water Act (SDWA), 2002**

In accordance with the Schedule 22 of O. Reg. 170/03 under Safe Drinking Water Act (SDWA), 2002, it is the responsibility of the Water and Wastewater Division to provide a summary report of its water system to the Municipal Council no later than March 31<sup>st</sup> of each year. As per subsection 5 of section 22-2 under Schedule 22, such summary report for 2016 prepared and submitted on or before March 31, 2017 shall cover the activities done in water distribution and treatment in a period from January 1, 2016 to December 31, 2016.

The report must,

- (a) list the requirements of the Act, the regulations, the system's approval and any order that the system failed to meet at any time during the period covered by the report and specify the duration of the failure; and
- (b) for each failure referred to in clause (a), describe the measures that were taken to correct the failure.

The report must also include the following information for the purposes of enabling the owner of the system to assess the capability of the system to meet existing and planned uses of the system:

- a) A summary of the quantities and flow rates of the water supplied during the period covered by the report, including monthly average and maximum daily flows and daily instantaneous peak flow rates.
- b) A comparison of the summary referred to in paragraph (a) to the rated capacity and flow rates approved in the systems approval.

# Summary Report Kenora Drinking Water System

## 1. Background

As required by the schedule 22 of O. Reg. 170/03 under SDWA 2002, this report gives the details on major activities carried out in Kenora Drinking Water System including both water distribution and water treatment plant for the period of January 1 – December 31, 2016. Water and Wastewater Division submits monthly reports on its drinking water every month to the council. This summary report can be considered as a collection of all twelve monthly reports submitted in 2016.

## 2. Activities

The following tables include all the major maintenance and operational activities that occurred in the year 2016.

**Table 1: Water Quality Complaints**

Month	Number of complaints	Nature of complaints
March	1	<ul style="list-style-type: none"> <li>Complaint of bad smelling water, no smell detected when visited and residual chlorine was adequate.</li> </ul>
April	1	<ul style="list-style-type: none"> <li>Complaint made after seeing BWA notice at her neighbour's residence, customer was explained how BWA works and she was assured with no issues on her water, residual chlorine was adequate.</li> </ul>
May	1	<ul style="list-style-type: none"> <li>Complaint of dirty water in toilets and sinks, found out to be internal plumbing issue.</li> </ul>
June	1	<ul style="list-style-type: none"> <li>Complaint of having swampy smelling water. Residual chlorine was adequate and there was no such smell during visit.</li> </ul>
August	5	<ul style="list-style-type: none"> <li>Four were related to taste and odor.</li> <li>Fifth complaint was regarding fine red sediment in a resident's tap due to watermain break repair. Residual chlorine was adequate in all cases.</li> </ul>
September	1	<ul style="list-style-type: none"> <li>Complaint of odor in water, residual chlorine was adequate.</li> </ul>
December	1	<ul style="list-style-type: none"> <li>Customer complained of odor in water. Chlorine residual was adequate and everything found to be normal.</li> </ul>

**Note:** There were eleven (11) water quality complaints recorded in 2016. None of the complaints had any health and safety concern.

**Table 2: Boil Water Advisories (BWAs)**

<b>Month</b>	<b>Number of BWAs</b>	<b>Locations</b>
January	2	<ul style="list-style-type: none"> <li>• Matheson Street North and Fifth Street North.</li> <li>• First Street South, Eighth Avenue South, Railway Street and Park Street.</li> </ul>
February	1	<ul style="list-style-type: none"> <li>• Ninth Avenue South and Second Street South.</li> </ul>
April	1	<ul style="list-style-type: none"> <li>• Tunnel Island (except hospital), all of Norman and Keewatin.</li> </ul>
May	4	<ul style="list-style-type: none"> <li>• Ninth Street North.</li> <li>• Dowsett Street, Mikado Avenue.</li> <li>• All residents on Coney Island.</li> <li>• Jones Road.</li> </ul>
June	1	<ul style="list-style-type: none"> <li>• Mikado Avenue.</li> </ul>
July	5	<ul style="list-style-type: none"> <li>• Fifteenth Avenue North, Sixteenth Avenue North, Eighteenth Avenue North, Seventeenth Avenue North, Nineteenth Avenue North, Sixth Street North, Ninth Street North, Homestake Road, Sunset Place, Sunrise Place, Airport Road, Park Avenue, Gerald Street, Clarence Street, Railway Street and Nineteenth Avenue South.</li> <li>• Rabbit Lake Road, Universal Drive.</li> <li>• Matheson Street North, Fifth Street North, Main Street North.</li> <li>• Anicinabe Park.</li> <li>• Mikado Avenue.</li> </ul>
August	1	<ul style="list-style-type: none"> <li>• Railway Street, Pump Avenue.</li> </ul>
September	2	<ul style="list-style-type: none"> <li>• Kenora Shoppers Mall.</li> <li>• Sixth Street South.</li> </ul>
October	1	<ul style="list-style-type: none"> <li>• Matheson Street South, First Street South, Pine Portage Road and River Drive.</li> </ul>
December	3	<ul style="list-style-type: none"> <li>• Sewage Treatment Plant.</li> <li>• Rabbit Lake Road and Universal Drive.</li> <li>• Coney Island.</li> </ul>

**Note:** There were twenty one (21) BWAs issued in 2016, less than the numbers we had in 2015.

**Table 3: Training**

Month	Course Title	Attendants	Duration
January	Clearlogic Training on Performance Management	Ray Lindquist, Biman Paudel	1/2 day
	Clearlogic Training on Problem Solving	Darryl Paterick, Leland Parker, Ray Lunam	1/2 day
	OMLI webinar on Strategic Leadership	Biman Paudel	1 hour
February	Joint Health and Safety Certification	Biman Paudel, John Heatherington	3 days
	OMLI webinar on Strategic Leadership	Biman Paudel	1 hour
March	Basics of Supervision	All staff at the shop	1/2 day
	Macmor's training on "Lifting Slings Basics"	All staff at the shop	2 hours
	Problem Solving	All staff at the shop and WTP	1/2 day
April	Canadian Training Resources "Leadership Training"	Biman Paudel	2 days
	XCG training on "Basic Water Treatment for Operators"	All staff at the shop and WTP	1 day (DA)
	XCG training on "Disinfection of watermains"	All staff at the shop and WTP	1 day (DA)
	Walkerton training on "Prevention and control of nitrification on drinking water systems"	All staff at the shop and WTP	1 day (DA)
	Walkerton training on "Basics of SCADA"	Biman Paudel and all WTP staff	1 day (DA)
	Training on vivax locator	Jim Bell, Dave King, Dwayne German, Darryl Paterick, Jayson Pykerman	3 hours
May	Training on Performance Management	All staff at the shop and WTP	1/2 day
September	Webinars on Hypertension and Lifestyle Management	Ray Lindquist, Biman Paudel	1 hour
October	Webinar on Medication Management	Biman Paudel	1 hour
	Training on Managing in a Unionized Environment	Biman Paudel	1 day
	NW Water and Wastewater Conference	Ray Lindquist, Ryan Peterson	2 days
	Health and Safety Refresher Training	All staff at the shop and WTP	1/2 day
November	WWOTC training on Buried Utility Locating	All staff at the shop and WTP	1 day (DA)
	WWOTC training on winterwise: cold hard facts on distribution system	All staff at the shop and WTP	1 day (DA)
	WWOTC training on Lift Stations Operations and Maintenance	All staff at the shop	1 day (DA)
	WWOTC training on Adverse Quality Response	All staff at the shop and WTP	1 day (DA)
	Cultural Sensitivity Training	Ray Lindquist	1 day
	Forum North - Partners in Prevention Conference	Darryl Paterick and Biman Paudel	2 days
December	HR training for non-union supervisors	Ray Lindquist and Biman Paudel	1 day

**Note:** DA indicates the Ministry of Environment and Climate Change (MOECC) Director's approved courses. Total activities – 27; 8 trainings are related to water/wastewater, 13 trainings for H & S and other, 2 Conferences and 4 Webinars.

**Table 4: Water Thawing**

<b>Month</b>	<b>Number of Thaws</b>	<b>Type</b>
January	3	0 – City Property. 3- Private Property.

**Note:** Total number of water thaws for the whole year was three (3). With a relatively mild winter year and number of adjustments such as installation of external bleeders in some identified critical locations could be the reasons for substantial decrease in frozen cases.

**Table 5: Watermain Breaks and Maintenance**

<b>Month</b>	<b>Number of Breaks</b>	<b>Locations</b>
January	3	<ul style="list-style-type: none"><li>• Intersection of Matheson Street North and Fifth Street North.</li><li>• 226 Fifth Street North.</li><li>• 115 Eighth Avenue South.</li></ul>
February	1	<ul style="list-style-type: none"><li>• 217 Ninth Avenue South.</li></ul>
April	1	<ul style="list-style-type: none"><li>• 1 Ocean Avenue.</li></ul>
May	2	<ul style="list-style-type: none"><li>• 1215 Ninth Street North.</li><li>• Anicinabe Park.</li></ul>
June	1	<ul style="list-style-type: none"><li>• 324 Tenth Street North.</li></ul>
July	4	<ul style="list-style-type: none"><li>• 121 Rabbit Lake Road.</li><li>• 226 Fifth Street North.</li><li>• Anicinabe Park.</li><li>• 101 Mikado Avenue.</li></ul>
August	3	<ul style="list-style-type: none"><li>• 101 Mikado Avenue.</li><li>• 1357 Valley Drive.</li><li>• 10 Pump Avenue.</li></ul>
December	2	<ul style="list-style-type: none"><li>• Sewage Treatment Plant.</li><li>• 131 Rabbit Lake Road.</li></ul>

**Note:** Total number of watermain breaks and subsequent repairs was seventeen (17).



**Table 6: Service Water Leaks and Maintenance**

<b>Month</b>	<b>Number of Breaks</b>	<b>Locations</b>
January	4	<ul style="list-style-type: none"> <li>• 121 Third Street North.</li> <li>• 1415 Eighth Street North.</li> <li>• 321 First Avenue South.</li> <li>• 12 Mascot Avenue.</li> </ul>
March	1	<ul style="list-style-type: none"> <li>• 321 First Avenue South.</li> </ul>
April	1	<ul style="list-style-type: none"> <li>• 1 Ocean Avenue.</li> </ul>
May	6	<ul style="list-style-type: none"> <li>• 512 Sixth Avenue South.</li> <li>• 234 Third Street North.</li> <li>• 332 First Street North.</li> <li>• 423 Fifth Street North.</li> <li>• 602 Third Street North.</li> <li>• 321 First Street North.</li> </ul>
June	2	<ul style="list-style-type: none"> <li>• Coney Summer Services at Boardwalk.</li> <li>• 222 Coney Island.</li> </ul>
September	2	<ul style="list-style-type: none"> <li>• 1336 HWY 17 E.</li> <li>• 627 Second Avenue South.</li> <li>• 809 Fourth Street North.</li> <li>• 1200 Eighth Street North.</li> </ul>
November	2	<ul style="list-style-type: none"> <li>• Site 59 Anicinabe Park.</li> <li>• 426 Third Street North.</li> </ul>
December	3	<ul style="list-style-type: none"> <li>• 422-424 Second Street South.</li> <li>• 962 Coney Island.</li> <li>• 426 Eighth Street Keewatin.</li> </ul>

**Note:** Total number of service water leaks repaired was twenty one (21).

**Other Information**

- City’s Drinking Water Works Permit (DWWP) and Municipal Drinking Water License have been renewed for the next five year.
- Received Certificate of Accreditation (Period 2016 – 2019) on City’s Drinking Water System.
- Blair McCallum got his Class 2 certification on water treatment plant.



### 3. Ministry of Environment and Climate Change's (MOECC's) Issues and Response

MOECC conducted an announced, focussed inspection of Drinking Water System on October 19<sup>th</sup>, 20<sup>th</sup> and 24<sup>th</sup>, 2016, with municipal staff.

As highlighted below, the inspection identified two non-compliance and two best management practice (BMP) issues.

Non-compliance issues:

1. The owner/operating authority was not in compliance with the requirement to prepare Form 2 documents for couple of alterations at the Plant as required by their Drinking Water Works Permit during the inspection period.

**Resolution** – Form 2's were prepared for all indicated alterations and submitted to the water inspector on October 27, 2016 requiring no further action.

2. The operations and maintenance manuals did not meet the requirements of the Drinking Water Works Permit and Municipal Drinking Water License issued under Part V of the SDWA.

**Resolution** – As advised the manuals have been updated and subsequent follow-up with MOECC. No further action required.

Best Management Practices:

1. MOECC recommends that the City of Kenora assess the security at the Keewatin stand pipe and take the necessary steps to prevent unauthorized access to within the fenced area.

**Plan** - Will be done in 2017.

2. MOECC recommends to have full status on possible cross connections on Coney Island summer service and full enforcement of City's water and sewer by-law 168-2004.

**Plan** – Report will be made before 2017 summer service on Coney Island.

(MOECC's full report and responses on non-compliance issues are included in the appendix).

#### 4. Flow Summary:

### 2016 Summary of Quantities and Flows

Month	Total Monthly Flow, m <sup>3</sup>		Avg. Daily Flow, m <sup>3</sup>		Max. Daily Flow, m <sup>3</sup>	
	Influent	Effluent	Influent	Effluent	Influent	Effluent
January	208,502	189,482	6,726	6,295	7,677	7,234
February	190,747	172,324	6,577	6,125	7,223	6,727
March	202,796	182,518	6,542	6,065	7,586	7,246
April	188,562	169,237	6,285	5,813	7,125	6,763
May	183,537	164,116	5,921	5,459	6,852	6,446
June	172,325	154,410	5,744	5,310	6,627	6,044
July	187,086	168,113	6,035	5,587	7,230	6,764
August	190,135	171,523	6,133	5,693	6,691	6,230
September	171,400	153,347	5,713	5,264	6,623	6,071
October	171,269	154,048	5,525	5,123	6,717	6,155
November	169,645	152,785	5,655	5,237	6,103	5,742
December	193,708	173,963	6,249	5,775	7,254	6,606
<b>Total</b>	2,229,712	2,005,866				
<b>Monthly Avg.</b>	185,809	167,156				

#### Comparisons:

##### Influent

Maximum Instantaneous Peak Flow (September 14th, 2016) = 274 L/s (23,702 m<sup>3</sup>/day).  
 Approved Permit to Take Water Maximum Instantaneous Flow Rate = 300 L/s (25,920 m<sup>3</sup>/day).  
 Highest Instantaneous Peak Flow Was 91% of Rated Capacity.

##### Effluent

Maximum Daily Effluent Flow of 7,246 m<sup>3</sup> was Recorded in March.  
 Plant's Rated Design Capacity = 292 L/s (25,270 m<sup>3</sup>/day).  
 Maximum Daily Effluent Rate was 29% of the Plants Design Capacity.

##### Note:

\*\* Both the influent and effluent are within the limits and the plant is not running on its full capacity.

\*\* Beginning in 2016 Total Monthly Effluent Flows are now calculated taking into account the plant's internal water use which is metered separately after the effluent flow meter.

## **5. Final Notes:**

- Consultant's recommendations on taste and odor should be considered in future plans for Water Treatment Plant.
- Program such as flushing and valve exercising should be implemented in the distribution system in a phase wise basis.
- Must have capital plans on looping the most critical dead end water mains and replacing identified critical sections with repeated maintenance issues.

## List on Operators' Certificate and Licence

Person	WD		WWC		WTP		WWTP		Remarks
	Class	Expiry Date	Class	Expiry Date	Class	Expiry Date	Class	Expiry Date	
Biman Paudel	2	10/31/17	2	10/31/17	2	10/31/17	2	10/31/17	Division Lead
Ray Lindquist	2	2/28/18	2	2/28/18					Team Leader
Jed Alcock	2	9/30/18	2	9/30/18					Operator
Craig Robinson	2	3/31/18	2	4/30/17					Operator
Jayson Pykerman	2	8/31/18	2	7/31/18					Operator
Darryl Paterick	2	1/31/18	2	1/31/18					Operator
Dwayne German	2	11/30/18	2	3/31/18					Operator
Leland Parker	2	6/30/17	2	6/30/17					Operator
Dave King	2	10/31/18	2	10/31/18					Operator
Ray Lunam	2	10/31/18	2	10/31/18					Operator
Raymond J. Bell	1	4/30/18	1	4/30/18					Operator
Mike Derouard	1	8/31/18	1	8/31/18					Operator
Bill Dixon	OIT	1/31/18	OIT	1/31/18					Operator
Jon Burt	OIT	3/31/17	OIT	10/31/18					Meter Reader
<b>WTP</b>									
Ryan Peterson					4	7/31/2018			ORO
Dan Anderson					3	10/31/2018			Operator
John Heatherington					3	10/31/2019			Operator
Blair McCallum					2	07/31/2019			Operator

WD- Water Distribution, WWC - Wastewater Collection, WTP - Water Treatment Plant, WWTP - Wastewater Treatment Plant.

\*\*\* Updated: January 23, 2017

# Appendix

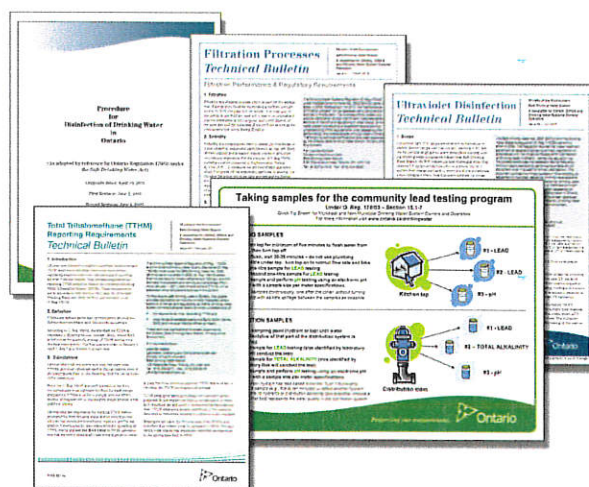


# Key Reference and Guidance Material for Municipal Residential Drinking Water Systems

Many useful materials are available to help you operate your drinking water system. Below is a list of key materials owners and operators of municipal residential drinking water systems frequently use.

To access these materials online click on their titles in the table below or use your web browser to search for their titles. Contact the Public Information Centre if you need assistance or have questions at 1-800-565-4923/416-325-4000 or [picemail.moe@ontario.ca](mailto:picemail.moe@ontario.ca).

For more information on Ontario's drinking water visit [www.ontario.ca/drinkingwater](http://www.ontario.ca/drinkingwater) and email [drinking.water@ontario.ca](mailto:drinking.water@ontario.ca) to subscribe to drinking water news.



PUBLICATION TITLE	PUBLICATION NUMBER
Taking Care of Your Drinking Water: A Guide for Members of Municipal Councils	7889e01
FORMS: Drinking Water System Profile Information, Laboratory Services Notification, Adverse Test Result Notification Form	7419e, 5387e, 4444e
Procedure for Disinfection of Drinking Water in Ontario	4448e01
Strategies for Minimizing the Disinfection Products Trihalomethanes and Haloacetic Acids	7152e
Total Trihalomethane (TTHM) Reporting Requirements Technical Bulletin (February 2011)	8215e
Filtration Processes Technical Bulletin	7467
Ultraviolet Disinfection Technical Bulletin	7685
Guide for Applying for Drinking Water Works Permit Amendments, Licence Amendments, Licence Renewals and New System Applications	7014e01
Certification Guide for Operators and Water Quality Analysts	
Guide to Drinking Water Operator Training Requirements	9802e
Taking Samples for the Community Lead Testing Program	6560e01
Community Sampling and Testing for Lead: Standard and Reduced Sampling and Eligibility for Exemption	7423e
Guide: Requesting Regulatory Relief from Lead Sampling Requirements	6610
Drinking Water System Contact List	7128e
Technical Support Document for Ontario Drinking Water Quality Standards	4449e01

[ontario.ca/drinkingwater](http://ontario.ca/drinkingwater)



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**Inspection Rating Record**

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# APPLICATION OF THE RISK METHODOLOGY USED FOR MEASURING MUNICIPAL RESIDENTIAL DRINKING WATER SYSTEM INSPECTION RESULTS



The Ministry of the Environment (MOE) has a rigorous and comprehensive inspection program for municipal residential drinking water systems (MRDWS). Its objective is to determine the compliance of MRDWS with requirements under the Safe Drinking Water Act and associated regulations. It is the responsibility of the municipal residential drinking water system owner to ensure their drinking water systems are in compliance with all applicable legal requirements.

This document describes the risk rating methodology, which has been applied to the findings of the Ministry's MRDWS inspection results since fiscal year 2008-09. The primary goals of this assessment

are to encourage ongoing improvement of these systems and to establish a way to measure this progress.

MOE reviews the risk rating methodology every three years to account for legislative and societal changes that affect acceptable risk levels. As a result of the most recent review, the methodology has been modified to present an improved metric for the evaluation of the risk/safety of MRDWS operations.

The Ministry's Municipal Residential Drinking Water Inspection Protocol contains up to 14 inspection modules and consists of approximately 120 regulatory questions. Those protocol questions are also linked to definitive guidance that

[ontario.ca/drinkingwater](http://ontario.ca/drinkingwater)



ministry inspectors use when conducting MRDWS inspections. The questions address a wide range of regulatory issues, from administrative procedures to drinking water quality monitoring. Additionally, the inspection protocol contains a number of non-regulatory questions.

A team of drinking water specialists in the ministry have assessed each of the inspection protocol regulatory questions to determine the risk (not complying with the regulation) to the delivery of safe drinking water. This assessment was based on established provincial risk assessment principles, with each question receiving a risk rating referred to as the Question Risk Rating. Based on the number of areas where a system is deemed to be non-compliant during the inspection, and the significance of these areas to administrative, environmental, and health consequences, a risk-based inspection rating is calculated by the ministry for each drinking water system.

It is important to be aware that an inspection rating that is less than 100 per cent does not mean that the drinking water from the system is unsafe. It shows areas where a system's operation can improve. To that end, the ministry works with owners and operators of systems to make sure they know what they need to do to achieve full compliance.

The inspection rating reflects the inspection results of the specific drinking water system for the reporting year. Since the methodology is applied consistently over a period of years, it serves as a comparative measure both provincially and in relation to the individual system. Both the drinking water system and the public are able to track the performance over time, which encourages continuous improvement and allows systems to identify specific areas requiring attention.

The ministry's annual inspection program is an important aspect of our drinking water safety net. The ministry and its partners share a common commitment to excellence and we continue to work toward the goal of 100 per cent regulatory compliance.

## Determining Potential to Compromise the Delivery of Safe Water

The risk management approach used for MRDWS is aligned with the Government of Ontario's Risk Management Framework. Risk management is a systematic approach to identifying potential hazards; understanding the likelihood and consequences of the hazards; and taking steps to reduce their risk if necessary and as appropriate.

The Risk Management Framework provides a formula to be used in the determination of risk:

$$\text{RISK} = \text{LIKELIHOOD} \times \text{CONSEQUENCE}$$

(of the consequence)

Every regulatory question in the inspection protocol possesses a likelihood value (L) for an assigned consequence value (C) as described in **Table 1** and **Table 2**.

**TABLE 1:**

Likelihood of Consequence Occurring	Likelihood Value
0% - 0.99% (Possible but Highly Unlikely)	L = 0
1 - 10% (Unlikely)	L = 1
11 - 49% (Possible)	L = 2
50 - 89% (Likely)	L = 3
90 - 100% (Almost Certain)	L = 4

**TABLE 2:**

Consequence	Consequence Value
Medium Administrative Consequence	C = 1
Major Administrative Consequence	C = 2
Minor Environmental Consequence	C = 3
Minor Health Consequence	C = 4
Medium Environmental Consequence	C = 5
Major Environmental Consequence	C = 6
Medium Health Consequence	C = 7
Major Health Consequence	C = 8

The consequence values (0 through 8) are selected to align with other risk-based programs and projects currently under development or in use within the ministry as outlined in **Table 2**.

The Question Risk Rating for each regulatory inspection question is derived from an evaluation of every identified consequence and its corresponding likelihood of occurrence:

- All levels of consequence are evaluated for their potential to occur
- Greatest of all the combinations is selected.

The Question Risk Rating quantifies the risk of non-compliance of each question relative to the others. Questions with higher values are those with a potentially more significant impact on drinking water safety and a higher likelihood of occurrence. The highest possible value would be 32 (4×8) and the lowest would be 0 (0×1).

**Table 3** presents a sample question showing the risk rating determination process.

**TABLE 3:**

**Does the Operator in Charge ensure that the equipment and processes are monitored, inspected and evaluated?**

**Risk = Likelihood × Consequence**

C=1	C=2	C=3	C=4	C=5	C=6	C=7	C=8
<b>Medium</b> Administrative Consequence	<b>Major</b> Administrative Consequence	<b>Minor</b> Environmental Consequence	<b>Minor</b> Health Consequence	<b>Medium</b> Environmental Consequence	<b>Major</b> Environmental Consequence	<b>Medium</b> Health Consequence	<b>Major</b> Health Consequence
L=4 (Almost Certain)	L=1 (Unlikely)	L=2 (Possible)	L=3 (Likely)	L=3 (Likely)	L=1 (Unlikely)	L=3 (Likely)	L=2 (Possible)
<b>R=4</b>	<b>R=2</b>	<b>R=6</b>	<b>R=12</b>	<b>R=15</b>	<b>R=6</b>	<b>R=21</b>	<b>R=16</b>

## Application of the Methodology to Inspection Results

Based on the results of a MRDWS inspection, an overall inspection risk rating is calculated. During an inspection, inspectors answer the questions that relate to regulatory compliance and input their responses as “yes”, “no” or “not applicable” into the Ministry’s Laboratory and Waterworks Inspection System (LWIS) database. A “no” response indicates non-compliance. The maximum number of regulatory questions asked by an inspector varies by: system (i.e., distribution, stand-alone), type of inspection (i.e., focused, detailed), and source type (i.e., groundwater, surface water).

The risk ratings of all non-compliant answers are summed and divided by the sum of the risk ratings of all questions asked (maximum question rating). The resulting inspection risk rating (as a percentage) is subtracted from 100 per cent to arrive at the final inspection rating.

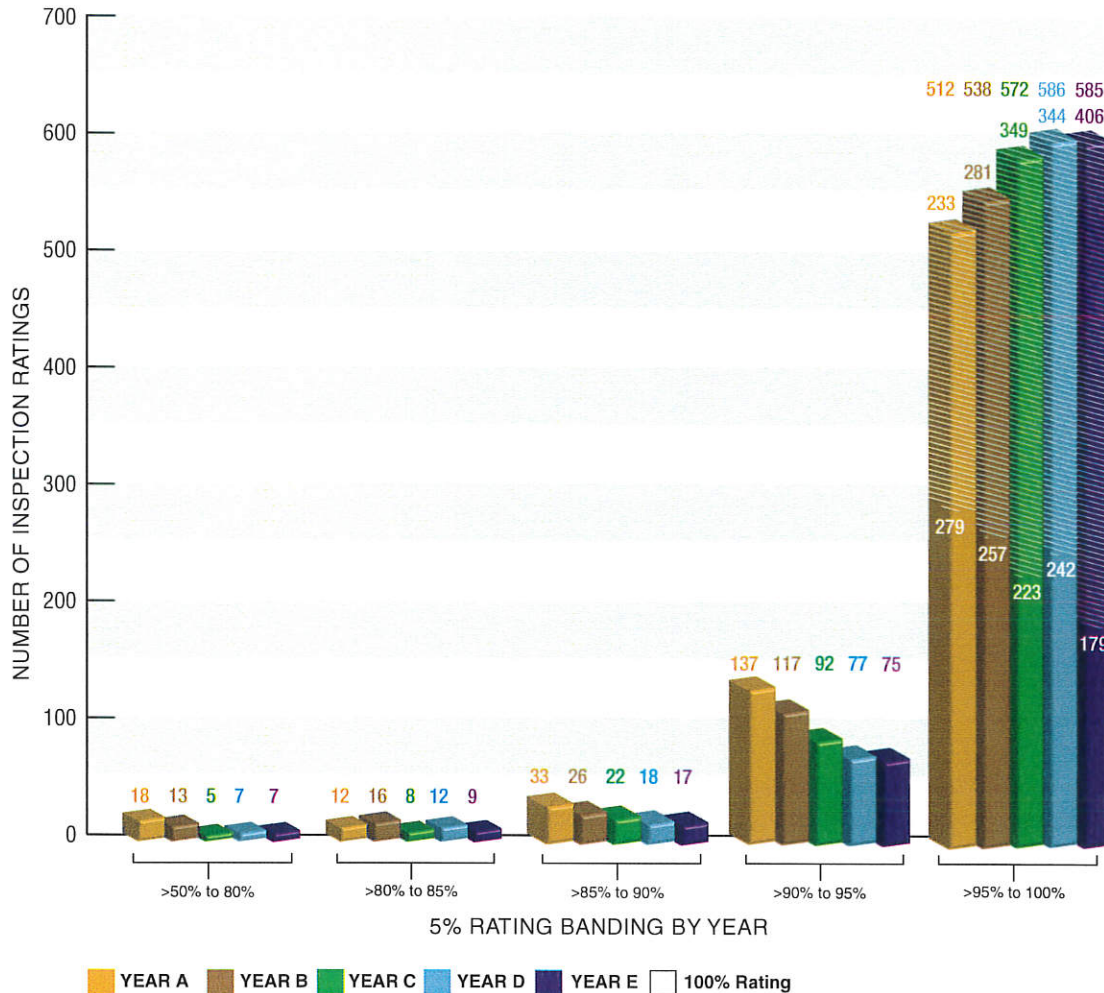


## Application of the Methodology for Public Reporting

The individual MRDWS Total Inspection Ratings are published with the ministry's Chief Drinking Water Inspector's Annual Report.

**Figure 1** presents the distribution of MRDWS ratings for a sample of annual inspections. Individual drinking water systems can compare against all the other inspected facilities over a period of inspection years.

**Figure 1: Year Over Year Distribution of MRDWS Ratings**



## Reporting Results to MRDWS Owners/Operators

A summary of inspection findings for each system is generated in the form of an Inspection Rating Record (IRR). The findings are grouped into the 14 possible modules of the inspection protocol,

which would provide the system owner/operator with information on the areas where they need to improve. The 14 modules are:

- |                         |                        |  |   |
|-------------------------|------------------------|--|---|
| 1. Source               | 5. Process Wastewater  | 9. Contingency and<br>Emergency Planning | 12. Water Quality Monitoring                          |
| 2. Permit to Take Water | 6. Distribution System | 10. Consumer Relations                   | 13. Reporting, Notification<br>and Corrective Actions |
| 3. Capacity Assessment  | 7. Operations Manuals  | 11. Certification and Training           | 14. Other Inspection Findings                         |
| 4. Treatment Processes  | 8. Logbooks            |  |   |

For further information, please visit [www.ontario.ca/drinkingwater](http://www.ontario.ca/drinkingwater)

**Ministry of the Environment - Inspection Summary Rating Record (Reporting Year - 2016-2017)**

**DWS Name:** KENORA AREA DRINKING WATER SYSTEM  
**DWS Number:** 220001423  
**DWS Owner:** Kenora, The Corporation Of The City Of  
**Municipal Location:** Kenora City

**Regulation:** O.REG 170/03  
**Category:** Large Municipal Residential System  
**Type Of Inspection:** Focused  
**Inspection Date:** October 19, 2016  
**Ministry Office:** Kenora Area Office

**Maximum Question Rating: 463**

<b>Inspection Module</b>	<b>Non-Compliance Rating</b>
Capacity Assessment	0 / 30
Treatment Processes	4 / 60
Operations Manuals	14 / 28
Logbooks	0 / 14
Certification and Training	0 / 28
Water Quality Monitoring	0 / 104
Reporting & Corrective Actions	0 / 66
Other Inspection Findings	0 / 0
Treatment Process Monitoring	0 / 133
<b>TOTAL</b>	<b>18 / 463</b>

**Inspection Risk Rating 3.89%**

**FINAL INSPECTION RATING: 96.11%**

**Ministry of the Environment - Detailed Inspection Rating Record (Reporting Year - 2016-2017)**

**DWS Name:** KENORA AREA DRINKING WATER SYSTEM  
**DWS Number:** 220001423  
**DWS Owner:** Kenora, The Corporation Of The City Of  
**Municipal Location:** Kenora City

**Regulation:** O.REG 170/03  
**Category:** Large Municipal Residential System  
**Type Of Inspection:** Focused  
**Inspection Date:** October 19, 2016  
**Ministry Office:** Kenora Area Office

Non-compliant Question(s)	Question Rating
<b>Operations Manuals</b>	
Do the operations and maintenance manuals meet the requirements of the DWWP and MDWL issued under Part V of the SDWA?	14
<b>Treatment Processes</b>	
Is the owner/operating authority able to demonstrate that, when required during the inspection period, Form 2 documents were prepared in accordance with their Drinking Water Works Permit?	4
<b>TOTAL QUESTION RATING</b>	<b>18</b>

**Maximum Question Rating: 463**

<b>Inspection Risk Rating</b>	<b>3.89%</b>
-------------------------------	--------------

<b>FINAL INSPECTION RATING:</b>	<b>96.11%</b>
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## Biman Paudel

---

**From:** Water Treatment Plant  
**Sent:** Wednesday, December 21, 2016 2:37 PM  
**To:** Biman Paudel  
**Subject:** FW: Operations Manual

Hi Biman,

See below. There are no more outstanding requirements from our 2016 MOECC inspection.

Ryan

---

**From:** Causyn, Aaron (MOECC) [mailto:Aaron.Causyn@ontario.ca]  
**Sent:** Wednesday, December 21, 2016 2:02 PM  
**To:** Water Treatment Plant  
**Subject:** RE: Operations Manual

Hi Ryan,

Thanks for addressing this issue. The actions you've taken satisfy the requirements of section 16.3, MDWL #228-101; no further actions required.

Aaron

**Aaron Causyn | Water Inspector**  
Ministry of the Environment and Climate Change  
Safe Drinking Water Branch  
808 Robertson St., 2<sup>nd</sup> Floor  
Kenora, ON P9N 1X9

Tel: 807.468.2721 | Fax: 807.468.2735  
Email: [aaron.causyn@ontario.ca](mailto:aaron.causyn@ontario.ca)  
Spill's Action Centre: 800.268.6060  
[www.ontario.ca/drinkingwater](http://www.ontario.ca/drinkingwater)

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**From:** Water Treatment Plant [mailto:watertreatment@kenora.ca]  
**Sent:** December-20-16 10:49 AM  
**To:** Causyn, Aaron (MOECC)  
**Subject:** Operations Manual

Hi Aaron,

See attached photos.

We've taken the manuals for our chemical feed pumps, analyzers, lab equipment, etc. and labelled them all to match how we refer to them in the plant. For example, if you are working on the clearwell effluent analyzer and need the calibration procedure, you would go to the Operations Manual shelf and use the manual labelled "Clearwell Effluent Analyzer". Before, you would need to know the model of the analyzer and find the appropriate manual.

Rather than incorporating calibration and maintenance procedures into our primary operations manual, we took advantage of the “maintenance manual or manuals” wording in the license and incorporated manufacturers manuals into our Operations Manual library. Our intention is to make this a working project, and anytime we get new equipment we will add its manual into the library.

Let me know if we need to do anything differently, or if we need to go any further to meet the Actions Required.

Thanks,

Ryan

City of Kenora Water Treatment Plant  
9 7th St S  
Kenora ON P9N 1P3  
Ph- 807-467-2101  
Fx- 807-467-2138  
[wtp@kenora.ca](mailto:wtp@kenora.ca)

Lake of the Woods  
**KENORA**



NORTH AMERICA'S  
**Premier**  
BOATING DESTINATION

**City of Kenora**  
**Water and Wastewater Division**

60 Fourteenth St. N  
Kenora, ON P9N 4M9  
Phone: 807-467-2296  
Fax: 807-467-2016

**"By Registered Mail"**

January 17, 2017

Mr. & Mrs. Glen Larson  
1317 Rocky Heights Rd  
Kenora, Ontario  
P9N 4G9

Re: 2016 Annual Report

Dear Mr. & Mrs. Larson,

Enclosed is the 2016 Annual Report for the City of Kenora's Drinking Water System. The City is required to provide a copy of the report to the owner(s) of private water systems that receive drinking water from the City of Kenora Drinking Water System, as outlined in the current regulations of the Safe Drinking Water Act, 2002.

As you are deemed to be the owner of the Rocky Heights Private Water System, you are therefore required to operate the water system in accordance with the current regulations under the Safe Drinking Water Act.

Should you have any questions or comments in regards to this letter and report please feel free to contact me at (807) 467 2296 or my email: [bpauldel@kenora.ca](mailto:bpauldel@kenora.ca).

Thank you.

Biman Paudel  
Division Lead

CC Karen Brown, CAO  
CC Jeff Hawley, Manager of Operations and Infrastructure  
CC Aaron Causyn, Drinking Water Inspector, MOE Kenora Area Office

*Attachment: 2016 Annual Report*





**OPTIONAL ANNUAL REPORT TEMPLATE**

<b>Drinking-Water System Number:</b>	220001423
<b>Drinking-Water System Name:</b>	KENORA AREA WATER TREATMENT PLANT
<b>Drinking-Water System Owner:</b>	CITY OF KENORA
<b>Drinking-Water System Category:</b>	LARGE MUNICIPAL RESIDENTIAL
<b>Period being reported:</b>	JANUARY 1, 2016 – DECEMBER 31, 2016

<p><b><u>Complete if your Category is Large Municipal Residential or Small Municipal Residential</u></b></p> <p><b>Does your Drinking-Water System serve more than 10,000 people? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></b></p> <p><b>Is your annual report available to the public at no charge on a web site on the Internet? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></b></p> <p><b>Location where Summary Report required under O. Reg. 170/03 Schedule 22 will be available for inspection.</b></p> <div style="border: 1px solid black; padding: 5px;"> <p>City Hall – 1 Main Street South              Kenora Water Treatment Plant –              9 7th Street South              City of Kenora – Website  <a href="http://www.kenora.ca">http://www.kenora.ca</a></p> </div>	<p><b><u>Complete for all other Categories.</u></b></p> <p><b>Number of Designated Facilities served:</b></p> <div style="border: 1px solid black; padding: 2px; width: fit-content;">N/A</div> <p><b>Did you provide a copy of your annual report to all Designated Facilities you serve? Yes <input type="checkbox"/> No <input type="checkbox"/></b></p> <p><b>Number of Interested Authorities you report to:</b></p> <div style="border: 1px solid black; padding: 2px; width: fit-content;">N/A</div> <p><b>Did you provide a copy of your annual report to all Interested Authorities you report to for each Designated Facility? Yes <input type="checkbox"/> No <input type="checkbox"/></b></p>
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**Note: For the following tables below, additional rows or columns may be added or an appendix may be attached to the report**

**List all Drinking-Water Systems (if any), which receive all of their drinking water from your system:**

Drinking Water System Name	Drinking Water System Number
Rocky Heights Distribution System	N/A

**Did you provide a copy of your annual report to all Drinking-Water System owners that are connected to you and to whom you provide all of its drinking water? Yes  No**



Indicate how you notified system users that your annual report is available, and is free of charge.

- Public access/notice via the web
- Public access/notice via Government Office
- Public access/notice via a newspaper
- Public access/notice via Public Request
- Public access/notice via a Public Library
- Public access/notice via other method \_\_\_\_\_

**Describe your Drinking-Water System**

The Kenora Water Treatment Plant is categorized as Large Municipal Residential. It is designated a Class III plant. The total number of service connections at this time is 5136. The water plant has a rated capacity of 292 Litres per second. The process is chemically assisted and includes filtration to meet the treatment requirements of O.Reg 170/03 for surface water. The plant uses chloramination to provide secondary disinfection prior to distribution.

**List all water treatment chemicals used over this reporting period**

Chlorine, Ammonium Sulphate, Aluminum Sulphate, Polyelectrolyte, Sodium Hydroxide, Sodium Silicofluoride.

**Were any significant expenses incurred to?**

- Install required equipment
- Repair required equipment
- Replace required equipment

**Please provide a brief description and a breakdown of monetary expenses incurred**

Installation of New Pumps and VFD's at Pine Portage Booster – \$15,000  
Purchase of Backup Sludge Pump – \$16,000  
Replacement of Loss of Head Pressure Transmitters – \$11,000  
Installation of Dehumidification Equipment in Highlift Area - \$15,000



Provide details on the notices submitted in accordance with subsection 18(1) of the Safe Drinking-Water Act or section 16-4 of Schedule 16 of O.Reg.170/03 and reported to Spills Action Centre

Incident Date	Parameter	Result	Unit of Measure	Corrective Action	Corrective Action Date
Jun 27 2016	Total coliform present in a sample taken during routine sampling. Subsequent downstream sampling revealed further total coliform at one specific residence.	Present		Flushing was conducted and resampling confirmed the absence of TC at the original sample location. Investigation revealed TC at downstream residence was likely an internal plumbing issue. Sampling from service line to residence confirmed the absence of TC.	Jul 18 2016
Jul 18 2016	Total coliform present in two consecutive samples taken from a residence under BWA due to a watermain repair.	Present		Residence remained on a BWA until flushing was done and sampling confirmed the absence of TC.	Jul 25 2016
Aug 29 2016	Total coliform present in a sample taken during routine sampling.	Present		Flushing was conducted and resampling confirmed the absence of TC.	Sep 6 2016





# Ontario Drinking-Water Systems Regulation O. Reg. 170/03

Microbiological testing done under the Schedule 10, 11 or 12 of Regulation 170/03, during this reporting period.

	Number of Samples	Range of E.Coli Results (min #)-(max #)	Range of Total Coliform Results (min #)-(max #)	Number of HPC Samples	Range of HPC Results (min #)-(max #)
Raw	52	<1 – 22	<1 – >2420	N/A	N/A
Treated	52	Absent	Absent	52	0 – 3
Distribution	312	Absent	Absent-Present	98	0 – 525

Operational testing done under Schedule 7, 8 or 9 of Regulation 170/03 during the period covered by this Annual Report.

	Number of Grab Samples	Range of Results	Number of Online Samples	Range of Results
Turbidity	365	0.038 - 0.085 NTU	8760	0.004 – 0.093 NTU
Chlorine	365	1.03 – 1.71 mg/L	8760	1.04 – 1.65 mg/L
Fluoride (If the DWS provides fluoridation)	365	0.19 - 0.76 mg/L	8760	0.05 – 0.72 mg/L

**NOTE:** Record the unit of measure if it is *not* milligrams per litre.

Summary of additional testing and sampling carried out in accordance with the requirement of an approval, order or other legal instrument.

Date of legal instrument issued	Parameter	Date Sampled	Result	Unit of Measure
Nov 3/2004	Total suspended solids	No samples were taken as effluent was not discharged to lake in 2016.	N/A	mg/L



**Summary of Inorganic parameters tested during this reporting period or the most recent sample results**

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Antimony	Jan 11/2016	<0.60	ug/L	No
Arsenic	Jan 11/2016	<1.0	ug/L	No
Barium	Jan 11/2016	<10	ug/L	No
Boron	Jan 11/2016	<50	ug/L	No
Cadmium	Jan 11/2016	<0.10	ug/L	No
Chromium	Jan 11/2016	<1.0	ug/L	No
*Lead	N/A	N/A	N/A	N/A
Mercury	Jan 11/2016	<0.10	ug/L	No
Selenium	Jan 11/2016	<1.0	ug/L	No
Sodium	Jan 5/2015	14.1	mg/L	No
Uranium	Jan 11/2016	<2.0	ug/L	No
Fluoride	Jan 5/2015	0.550	mg/L	No
Nitrite	Jan 11/2016	<0.010	mg/L	No
	Apr 4/2016	<0.010	mg/L	No
	July 11/2016	<0.010	mg/L	No
	Oct 3/2016	<0.010	mg/l	No
Nitrate	Jan 11/2016	0.177	mg/L	No
	Apr 4/2016	0.224	mg/L	No
	July 11/2016	<0.020	mg/L	No
	Oct 3/2016	0.041	mg/L	No

\*only for drinking water systems testing under Schedule 15.2; this includes large municipal non-residential systems, small municipal non-residential systems, non-municipal seasonal residential systems, large non-municipal non-residential systems, and small non-municipal non-residential systems.

**Summary of lead testing under Schedule 15.1 during this reporting period**

(applicable to the following drinking water systems; large municipal residential systems, small municipal residential systems, and non-municipal year-round residential systems)

Location Type	Number of Samples	Range of Lead Results (min#) – (max #)	Number of Exceedances
Plumbing	N/A	N/A	N/A
Distribution	N/A	N/A	N/A

**Summary of Organic parameters sampled during this reporting period or the most recent sample results**

Parameter	Sample Date	Result Value	Unit of Measure	Exceedance
Alachlor	Jan 11/2016	<0.10	ug/L	No
Aldicarb	Jan 11/2016	<1.0	ug/L	No
Atrazine + N-dealkylated metabolites	Jan 11/2016	<0.20	ug/L	No
Azinphos-methyl	Jan 11/2016	<0.10	ug/L	No





Benzene	Jan 11/2016	<0.50	ug/L	No
Benzo(a)pyrene	Jan 11/2016	<0.010	ug/L	No
Bromoxynil	Jan 11/2016	<0.20	ug/L	No
Carbaryl	Jan 11/2016	<0.20	ug/L	No
Carbofuran	Jan 11/2016	<0.20	ug/L	No
Carbon Tetrachloride	Jan 11/2016	<0.50	ug/L	No
Chlorpyrifos	Jan 11/2016	<0.10	ug/L	No
Diazinon	Jan 11/2016	<0.10	ug/L	No
Dicamba	Jan 11/2016	<0.20	ug/L	No
1,2-Dichlorobenzene	Jan 11/2016	<0.50	ug/L	No
1,4-Dichlorobenzene	Jan 11/2016	<0.50	ug/L	No
1,2-Dichloroethane	Jan 11/2016	<0.50	ug/L	No
1,1-Dichloroethylene (vinylidene chloride)	Jan 11/2016	<0.50	ug/L	No
Dichloromethane	Jan 11/2016	<5.0	ug/L	No
2,4 Dichlorophenol	Jan 11/2016	<0.30	ug/L	No
2,4-Dichlorophenoxy acetic acid (2,4-D)	Jan 11/2016	<0.20	ug/L	No
Diclofop-methyl	Jan 11/2016	<0.20	ug/L	No
Dimethoate	Jan 11/2016	<0.10	ug/L	No
Diquat	Jan 11/2016	<1.00	ug/L	No
Diuron	Jan 11/2016	<1.00	ug/L	No
Glyphosate	Jan 11/2016	<5.00	ug/L	No
Malathion	Jan 11/2016	<0.10	ug/L	No
Metolachlor	Jan 11/2016	<0.10	ug/L	No
Metribuzin	Jan 11/2016	<0.10	ug/L	No
Monochlorobenzene	Jan 11/2016	<0.50	ug/L	No
Paraquat	Jan 11/2016	<1.00	ug/L	No
Pentachlorophenol	Jan 11/2016	<0.50	ug/L	No
Phorate	Jan 11/2016	<0.10	ug/L	No
Picloram	Jan 11/2016	<0.20	ug/L	No
Polychlorinated Biphenyls(PCB)	Jan 11/2016	<0.035	ug/L	No
Prometryne	Jan 11/2016	<0.10	ug/L	No
Simazine	Jan 11/2016	<0.10	ug/L	No
THM (NOTE: show latest annual average)	Jan 11/2016 April 4/2016 July 11/2016 Oct 3/2016	51.9	ug/L	No
Terbufos	Jan 11/2016	<0.20	ug/L	No
Tetrachloroethylene	Jan 11/2016	<0.50	ug/L	No
2,3,4,6-Tetrachlorophenol	Jan 11/2016	<0.50	ug/L	No
Triallate	Jan 11/2016	<0.10	ug/L	No
Trichloroethylene	Jan 11/2016	<0.50	ug/L	No
2,4,6-Trichlorophenol	Jan 11/2016	<0.50	ug/L	No
Trifluralin	Jan 11/2016	<0.10	ug/L	No



# Ontario Drinking-Water Systems Regulation O. Reg. 170/03

Vinyl Chloride	Jan 11/2016	<0.20	ug/L	No
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List any Inorganic or Organic parameter(s) that exceeded half the standard prescribed in Schedule 2 of Ontario Drinking Water Quality Standards.

Parameter	Result Value	Unit of Measure	Date of Sample
Sodium	14.1	mg/L	Jan 5/2015
THM	51.9	ug/L	Annual Average



# CERTIFICATE OF ACCREDITATION

This is to certify that the following operating authority:

## The Corporation of the City of Kenora

1 Main Street Kenora, Ontario P9N 3X2 Canada

### Additional Drinking Water System:

Kenora Area Drinking Water System

operates a

## Quality Management System

which conforms with the requirements of

## Drinking Water Quality Management Standard (DWQMS):2006

for the following scope of accreditation

### Full Scope - Entire DWQMS

Certificate No.: CERT-0097531  
File No.: 1635367  
Issue Date: August 8, 2016

Original Certification Date: August 7, 2013  
Certification Effective Date: August 6, 2016  
Certification Expiry Date: August 5, 2019

Paul Simpson  
Global Head of Policy, Risk and Compliance



DWQMS

Accredited by:  
QMI-SAI Canada Limited (SAI Global), 20 Carlson Court, Suite 200, Toronto, Ontario M9W 7K6 Canada. This registration is subject to the SAI Global Terms and Conditions for Certification. While all due care and skill was exercised in carrying out this assessment, SAI Global accepts responsibility only for proven negligence. This certificate remains the property of SAI Global and must be returned to them upon request.  
To verify that this certificate is current, please refer to the SAI Global On-Line Certification Register: [www.qmi-saiglobal.com/qmi\\_companies/](http://www.qmi-saiglobal.com/qmi_companies/)

 **SAI GLOBAL**  
INFORM. INSPIRE. IMPROVE.





4 March 2017

## City Council Committee Report

**To: Mayor and Council**

**Fr: Karen Brown, CAO**

**Re: Seventh Avenue Bridge – Load Restriction**

### **Recommendation:**

That Council hereby approves a load restriction of a 5 tonne Gross Vehicle Weight for the Seventh Avenue Bridge effective immediately; and further

That the appropriate bylaw be passed for this purpose.

### **Background:**

The City recently received the 2016 Bridge Inspection Report from Stantec. Pricing for a follow up presentation to Council on the results of those inspections has been obtained and will form part of the 2017 operating budget deliberations. A copy of the executive summary related to the Seventh Avenue Bridge is attached for Council's reference.

In 2014, the Seventh Avenue Bridge BCI (Bridge Condition Index) was determined to be 44.92 based on the inspection by WSP Canada Inc. With that rating, the Seventh Avenue Bridge represented the bridge that was by far in the worst shape, with the next worst bridge Coker Road Bailey Bridge having a BCI of 58.51.

In the 2016 inspection done by Stantec, the Seventh Avenue Bridge BCI increased to 55.14, and the Coker Road Bailey Bridge fell to 52.82. It should be recognized that no works were done on the Seventh Avenue Bridge that would have resulted in a positive shift in this assessment. Rather, it should be understood that these assessments rely on visual inspections and can be subjective between different consultants.

Given the current state of the Seventh Avenue Bridge, the consultants have recommended that future inspections be done on an annual basis (as opposed to the current required biennial inspection), and on an enhanced OSIM (Ontario Structural Inspection Manual) basis (as opposed to a non-enhanced basis). As per the City's Municipal Engineer, this means that the components of the bridge would need to be inspected within an arms-length, so as to be up close to determine the bridge condition and be able to tap and pick at the structure for soundness. (This as opposed to the non-enhanced inspection, which involves a visual inspection by way of getting as close to the structure as possible, which can include looking at it through binoculars from the shoreline.) The consultants are recommending that the bridge be replaced within the next 2 – 3 years. This is in recognition that originally the City had planned for replacement of this bridge in 2017, however was unsuccessful in its efforts to obtain funding from the Province.

The new recommendations from Stantec related to increasing the frequency and the nature of the ongoing inspections has resulted in the question as to whether or not the City should be considering implementing a load restriction on the Seventh Avenue Bridge.

The bridge is in close proximity to an elementary school, and it has been confirmed that it is used by the school bus traffic.

City engineering has advised that determination as to whether or not a load restriction would be required would be done through a structural engineer performing a structural analysis on the bridge. As noted by engineering, this may be difficult, and would need to be conducted based on conservative assumptions as the City does not have any construction or "as built" drawings of the current bridge that the engineer would require in order to prepare an accurate analysis.

For clarity, nothing in the bridge inspection report or provided to the City by the consultant has indicated that the City needs to move forward with a load restriction on the bridge. Rather, it is recommended that the City err on the side of caution and take reasonable precautions given the current bridge conditions and the recommendation for a more in depth, annual assessment moving forward.

Given the unknowns, and the location of the bridge, administration is recommending that Council implement a load restriction on this bridge to a 5 tonne Gross Vehicle Weight limit. This restriction would limit traffic to only small passenger vehicles.

This restriction will prohibit school buses, construction trucks/equipment, ambulances and the larger fire vehicles traversing this bridge. The City's Fire & Emergency Services department already makes every effort to avoid using this bridge unless required in the case of an emergency. (The second attachment is a map previously distributed to that department's staff, both full time and volunteer with regards to avoiding this bridge wherever possible.) Regardless, it is recommended that the load restriction be put in place until the structural integrity can either be confirmed, or the bridge replaced.

Finally, a further review is required with regards to the Coker Road Bailey Bridge, although no restrictions are being recommended in conjunction with this report and at this time.

**Budget / Financial Implications:**

Minimal budget impact related to signage and communication on Council's decision with regards to a load restriction.

**Communication Plan/Notice By-law Requirements:**

Communication plan with the public including appropriate signage. Specific communication is required to First Canada (student busing) and to City Fire Department.

**Strategic Plan or other Guiding Document:**

The City will ensure that our municipal infrastructure assets are managed and maintained using available resources through a robust asset management plan and process, with the intent of moving towards all City infrastructure being in a good state of repair to ensure certainty, security and long-term stability of our systems.

The City will keep in the forefront that there is a significant infrastructure deficit, and current and future Councils will need to continue to work towards allocating sufficient resources to be able to adequately address this issue.

**ERM Assessment:**

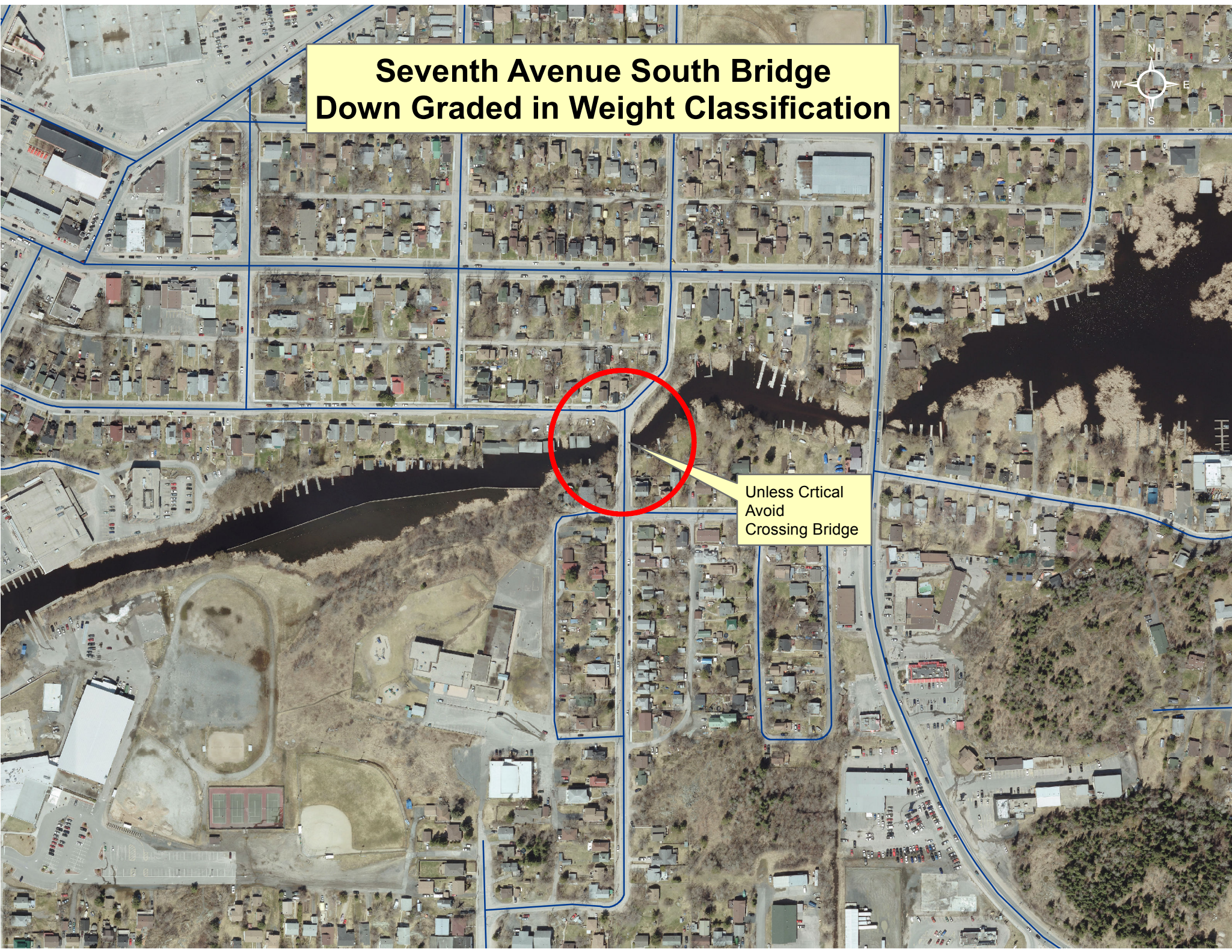
Although the exact likelihood is unknown and may not be able to be accurately determined, potential critical impact due to bridge failure.



# Seventh Avenue South Bridge Down Graded in Weight Classification



Unless Critical  
Avoid  
Crossing Bridge





### 3.20 SEVENTH AVENUE BRIDGE

The Seventh Avenue Bridge is a single 9.60 m span concrete girder bridge supported on concrete abutments with a concrete deck. The bridge was inspected by Justin Dahl, P.Eng. and Codi James, C.E.T. on July 13, 2016. The inspection was an OSIM inspection and did not include any special access provisions. As such, portions of the north abutment wall, the south abutment wall, bearings, diaphragms, the interior deck soffit, and the girders could not be fully accessed or inspected. Details of the inspection findings, recommendations, and photos can be found within the individual OSIM inspection report. The direction of structure is south to north.

#### 3.20.1 Observations

The overall condition of the bridge is fair with several large areas of poor defects. A summary of the poor noted defects is listed below:

##### Substructure

- Abutment walls have areas of severe scaling and concrete disintegration.
- The rock wall in front of both abutments has approximately 50% loss of grout or grout that is disintegrating. The SW and NW corners of the rock wall is being undermined.
- All four retaining walls are showing sign of movement away from the roadway and towards the waterway. The SW retaining wall was measured to have moved ~310 mm and the SE retaining wall was measured to have moved ~190 mm. The NE and NW retaining wall movements could not be measured.

##### Superstructure

- Light to severe potholes and severe cracking on the approach wearing surface. The South approach wearing surface appears to have settled approximately 70 mm.
- Wide transverse cracking on the south approach sidewalks.
- Isolated spalls on the barrier posts P2 and P4.
- Isolated delamination and spall on barrier railing at the NE corner.
- Several timber railings are missing.
- The newel posts have isolated spalls.
- The deck drains directly onto several girders causing severe deterioration on the girders.
  - G1 has spalling and delamination with exposed corroded reinforcement.
  - G2 has spalling, delamination, and disintegration with exposed corroded reinforcement.
  - G5 has spalling and disintegration along the bottom of the girder for nearly the full length with exposed corroded reinforcement.
- The asphalt wearing surface has severe ravelling and severe potholes. Asphalt is missing at north approach and the concrete deck is exposed with severe scaling and spalls with exposed corroded reinforcement.
- Several deck drains are plugged and non-functioning.
- The SW exterior soffit has a spall and delamination.
- The NW embankment is beginning to undermine the north abutment retaining wall and abutment.
- There is greater than 60% loss of riprap material around the bridge.
- Scour at the NE embankment corner is starting to encroach the adjacent roadway.

## 2016 CITY OF KENORA DETAILED VISUAL BRIDGE AND PARKADE INSPECTIONS

Executive Summary  
February 17, 2017

- The bridge sidewalks have areas of severe scaling along the sidewalk edge.

### 3.20.2 Additional Investigations

The movement of the retaining walls should be monitored by referencing the movement measurements included in the inspection report. Further, because of the severe deterioration of the structural members (girders), the bridge inspection frequency should be reduced to 1 year until the structure is replaced. The inspection and monitoring program can coincide with each other on the same 1-year frequency.

### 3.20.3 Recommendations

Based on the observations made during the inspection, the following maintenance work is recommended:

Recommended Work	Timing	Class C Opinion of Probable Cost
Replace missing railing timbers	<1 Year	\$7,000
Replace bridge	2-3 Years	\$2,000,000
	<b>TOTAL</b>	<b>\$2,007,000</b>

Due to the continuing foundation movements of the abutments, movement of the four retaining walls, undermining of the abutments, and severe deterioration of the girders, it is recommended that the bridge be replaced within 2 to 3 years.

### 3.20.4 Future Inspections

Based on the condition of the structure and number of bridge elements that could not be inspected by a standard OSIM inspection, it is recommended that an Enhanced OSIM Inspection be completed for each subsequent inspection, on a yearly basis, until the structure can be replaced. This Enhanced OSIM Inspection will likely require the use of a boat or under bridge crane to access the middle portions of the span.



March 3, 2017

## City Council Committee Report

**TO: Mayor and Council**

**FR: Jeff Hawley, Operations & Infrastructure Manager  
Biman Paudel, Water & Wastewater Division Lead**

**RE: Water Dispensing Units - Replacement**

### **Recommendation:**

That Council hereby approves the supply and replacement of three (3) water dispensing units: two (2) (low flow and high flow) at Evergreen Water Station, and one (1) (low flow) at Rabbit Lake Road Water Station, plus miscellaneous administrative expenses related to the new install, representing a total project cost of \$35,000 to be funded through the City's Water and Wastewater Reserve; and further

That Council gives three readings to a bylaw to amend the Tariff of Fees and Charges bylaw, Schedule D, to reflect the current water outlet card fees to reflect the present \$10.00 deposit for Water Dispensing Unit Customer cards be replaced with a \$25.00 one-time charge for new Customers and a \$15.00 one-time charge for existing Customers, in consideration that existing card holders already have a \$10.00 deposit on account with the City; and further

That Council hereby accepts the recommendation from administration for the proposal from Flo-Crest Equipment, Winnipeg, Manitoba, related to the supply and replacement of three (3) water dispensing units; and further

That bylaw number 131-2016 be hereby repealed.

### **Background:**

The low flow dispenser unit at the Evergreen Water Station has been non-functional for the last two months and customers coming to this location to get water have to go to the Rabbit Lake Road Water Station, which fortunately is still working. When the City Electricians tried to fix this non-functioning unit, it was determined that the transaction terminals were at the end of their life and obsolete. In contact with the company that installed these units and assisted on repairs in the past it was determined that spare parts were no longer available and there were no plans for future production. The Electricians have already used their last spare parts on an earlier repair.

The high flow unit at Evergreen and low flow unit at Rabbit Lake Road, installed at the same time along with the current non-working low flow unit at Evergreen, may break down anytime in the future with no spare parts available for repairs. If these running units break down customers will not have any other location or option to get water. This could also result in a disruption of the water tank truck delivery service. The Water and Wastewater Division therefore believes that all three (3) units (two running at the end of life and one already broken) must be replaced at the same time to make the purchase more cost effective and convenient to the customer.

The Water and Wastewater Division obtained quotations from companies who specialize in these units, see Biman Paudel's Report attached. Prices are as follows (HST included):

Flo-Crest Equipment	\$32,000.00
Indus Automation Inc	\$40,000.00
Birksco/Aqualoader	\$57,000.00

Comparative analysis shows Flo-Crest Equipment's price of \$32,000.00, HST included, is the lowest one, and on attending their demonstration it appears that they are more familiar with the City's expectations and requirements. Their proposed system looks very similar to the current one which will make it easier for our customers to use.

The present practice of issuing an access card with a deposit of \$10.00 is not in keeping with the user pay principle and since the old cards will not be compatible with the new system it is proposed that a one-time \$25 price be applied for each new card (\$15.00 price for existing card holders that already have a \$10.00 deposit on an account with the City), to offset the purchase and replacement cost of the units.

It is recommended that Council approve a purchase in the amount of \$35,000.00, to cover the required cost of \$32,000.00, HST included, for the supply and replacement of three (3) water dispensing units, and other administrative (replacement of cards, customers' education on the new system etc.) plus miscellaneous expenses. Also, that the lowest quotation received from Flo-Crest Equipment, Winnipeg, Manitoba, be accepted to perform the works.

**Budget:** \$35,000.00 from the Water and Wastewater Reserve Fund. Revenue received from the one-time card cost of \$25.00 per new Customer, and \$15.00 per existing Customer. This purchase will be included in the 2017 Water & Wastewater capital budget.

**Risk Analysis:** As per the requirements in the City's ERM Policy, there is a moderate operational risk and senior management have been informed. The risk has been mitigated by approved spending to purchase replacement Water Dispensing Units.

**Communication Plan/Notice By-law Requirements:**

Notice required to be placed on Committee Agenda, Minutes and subsequent Council Agenda/Minutes. By-law and Resolution required. Distribution: J. Hawley, B. Paudel

**Strategic Plan or other Guiding Document:**

Goal #2 Strengthen Our Foundations

2-1 - The City will ensure that our municipal infrastructure is maintained using available resources with the intent of moving towards all City infrastructure being in a good state of repair to ensure certainty, security and long-term stability of our systems.

2-3 - The City will ensure prompt and immediate response times supported by resilient communications in the event of system outages and other emergencies.

From : Biman Paudel, Water/Wastewater Division  
To : Jeff Hawley, Operations and Infrastructure Manager  
Subject : Replacement of Water Dispensing Units  
Date : 03/03/2017

## **Water Dispensing Units**

### **Current Status**

The low flow dispenser unit at Evergreen Water Station is non-functional since the last two months and the customers coming at this location to get water has to go to Rabbit Lake Road Water Station which fortunately is still working. When the electricians (Marc/Dave) tried to fix this non-functioning unit, it was determined that the transaction terminals were at the end of their life and obsolete. When contacted the company that installed these units and assisted on repair in the past we found the spare parts are not available with no more future production.

Marc and Dave already used their last spare parts on earlier fixing and were almost helpless at this time. Dave then went to explore all possible options to find out as follows:

The high flow unit at Evergreen and low flow unit at Rabbit Lake Road installed at the same time along with the current non-working unit may break down anytime in future with no spare parts available for repairs. If these running units are broken customers won't have any other location/option to get the water and there will be partial disruption on City's water truck delivery too. The water/wastewater division therefore believes that all three units (two running at the end of life and one already broken) must be replaced at the same time to make the work more cost effective and convenient. Towards replacement, the division received proposals from the following interested parties with their price:

<b>Company</b>	<b>Price (with tax)</b>	<b>Delivery and Installation Time</b>	<b>Difference from the existing</b>
Flo-Crest	\$32,000	3-5 weeks	Same company with the existing system, updated technology with cards similar to existing, seems more convenient and familiar



Indus	\$40,000	4-6 weeks	New technology, RFID/Kfob
Aqua Loader	\$57,000	Not included	Key fob driver system

Comparative analysis shows Flo-Crest's price of \$32,000 is the lowest one, and on attending their demonstration it looks like they are more familiar with the City's expectations and requirements. Their proposed system looks very similar to the current one which can help customers more easy to understand the system. The division thus recommends to go with Flo-Crest's proposal with a capital budget request for \$35,000 to cover the required cost of \$32,000 and other administrative (replacement of cards, customers' education on the new system etc.) plus miscellaneous expenses.

### **Proposed Changes on Customer's Card**

All activities under water/wastewater division are run on user pay principle. Water dispensing units are also not the exception. There is always a price associated with each card. So the current practice of issuing the card with \$10 deposit on each is not justified. To compensate the price and recover the installation cost and operating cost of the entire system in next couple of years the division recommends to tag one time \$25 price for each card. Once the new system starts working, each new customer is asked to pay \$25 for the card and the existing customers can replace their old card (which is not workable with the new arrangement) with the new one by paying \$15 in consideration that each old card already has \$10 deposit with the City account.



January 24, 2017

## City Council Committee Report

**TO: Mayor and Council**

**FR: Lake of the Woods Development Commission**

**RE: Memorandum of Understanding**

### **Recommendation:**

That Council hereby authorizes the Mayor and Clerk to enter into a Memorandum of Understanding between the Corporation of the City of Kenora and Harbourtown BIZ for a free one day rental of the Whitecap Pavilion per calendar year effective immediately and indefinitely; and further

That three readings be given to a by-law for this purpose.

### **Background:**

Harbourtown BIZ donated \$50,000 to the construction of the Whitecap Pavilion. As part of that donation, there was a verbal agreement struck between Harbourtown BIZ and the Lake of the Woods Development Commission/City of Kenora for Harbourtown BIZ to have a free one day rental of the Whitecap Pavilion per calendar year. This agreement has been honored since the conception of the Whitecap Pavilion including as recently as a free day rental to a Harbourtown BIZ member for the Triple B BBQ festival.

Harbourtown BIZ has acknowledged that the agreement is still in place and would like to see an official Memorandum of Understanding stating said agreement.

Conditions on the free day rental include:

- The date selected must be suitable to both the City of Kenora (Special Events) and Harbourtown Biz
- Harbourtown Biz will be allotted one (1) free day rental per calendar year that will expire December 31<sup>st</sup> if not used
- The free day rental cannot be used for a private function (ie. Wedding)
- The free day rental cannot be resold
- The free day rental cannot be divided into partial days

**Budget:** The impact would be loss of revenue for the tent rental period, with staff costs still associated with that rental.

### **Risk Analysis:**

As per the requirements in the City's ERM Policy, there is low financial and operational risk. This MOU would provide the community with the potential for an additional event on a yearly basis outside of the annual events like Harbourfest & KBI. The only cost incurred would be absorbed in the KAR contract for set up and take down.

**Communication Plan/Notice By-law Requirements:**

Council and Lake of the Woods Development Commission will advise Harbourtown BIZ & Tourism Kenora of the outcome.

**Strategic Plan or Other Guiding Document:**

## **MEMORANDUM OF UNDERSTANDING**

Dated the 8<sup>th</sup> day of March, 2017

### **BETWEEN**

The City of Kenora  
(Hereinafter called the "City")

### **AND**

Harbourtown Biz  
(Hereinafter called "BIZ")

### **REGARDING**

Free one (1) day rental of Whitecap Pavilion per year.

#### **1.0 Background**

BIZ donated \$50,000 to the construction of the Whitecap Pavilion. As part of that donation, there was a verbal agreement struck between BIZ and the Lake of the Woods Development Commission/City for BIZ to have a free one day rental of the Whitecap Pavilion per calendar year. This agreement has been honored since the conception of the Whitecap Pavilion including as recently as a free day rental to a BIZ member for the Triple B BBQ festival.

#### **2.0 Purpose**

The purpose of this agreement is to establish an MOU (Memorandum of Understanding) between the City and Biz for a free one day rental of the Whitecap Pavilion per year. This agreement will outline conditions the city and Biz need to meet in order to execute the free day rental.

#### **3.0 Conditions**

The City and Biz mutually agree and commit to the following conditions:

- The date selected must be suitable to both the City of Kenora (Special Events) and BIZ
- BIZ will be allotted one (1) free day rental per calendar year that will expire December 31<sup>st</sup> if not used
- The free day rental cannot be used for a private function (ie. Wedding)
- The free day rental cannot be resold
- The free day rental cannot be divided into partial days

#### **4.0 Review and/or Period Renewal**

This agreement to be reviewed in ten (10) years, with period ending March 8<sup>th</sup>, 2026.

**SIGNED, SEALED AND DELIVERED**

On behalf of the City,

\_\_\_\_\_  
Mayor

\_\_\_\_\_  
Clerk

\_\_\_\_\_  
Date

On behalf of the Harbourtown Biz

\_\_\_\_\_  
Darell Plummer  
Harbourtown Biz, Chair

\_\_\_\_\_  
Date