Corporate Asset Management Plan 2016

Town of Orangeville

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Abbreviations

Term or Abbreviation	Description
AM	Asset Management
AM Plan	Asset Management Plan
B/C	Benefit Cost Ratio
BCA	Building Condition Assessment
BCI	Bridge Condition Index
CoF	Consequence of Failure
CPI	Consumer Price Index
DWQMS	Drinking Water Quality Management System
ECA	Environmental Compliance Approval
IIMM	International Infrastructure Management Manual
KPI	Key Performance Indicator
LOS	Level of Service
MTO	Ministry of Transportation
MPL	Maximum Potential Life
NPV	Net Present Value
OSIM	Ontario's Structure Inspection Manual
PCI	Pavement Condition Index
PoF	Probability of Failure
PSAB	Public Sector Accounting Board
SOIR	State of the Infrastructure Report
TCA	Tangible Capital Asset
WPCP	Water Pollution Control Plant

1. Executive Summary

1.1 Background

This Asset Management Plan (AM Plan) is a long range planning document that is used to provide a rational framework for managing the Town of Orangeville's (the Town) assets over both a medium term (10 years) and long term (50 years) focus. The plan discusses management of risk and strategies for the Town's assets based on understanding of citizen and business requirements, regulatory compliance, and levels of service.

The AM Plan is intended to improve the Town's ability to meet its corporate goals and objectives in a way that best services its citizens and businesses. It provides a rational framework enabling systematic and repeatable processes to manage costs, risks and levels of service of its assets. The AM plan also identifies future funding requirements that can be used to prioritize renewal and capital programs.

1.2 State of the Local Infrastructure

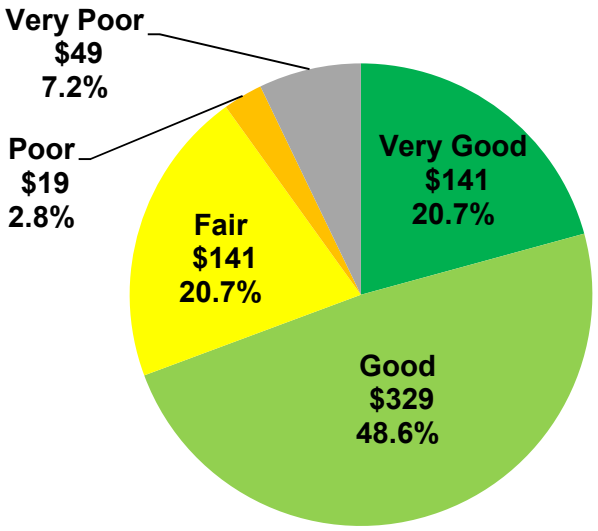
The AM Plan includes all corporate assets owned and operated by the Town. These assets have a total replacement value of $678.8 million. The Town's asset hierarchy and inventory is summarized in Table 1.

Table 1 Town Asset Inventory Count and Replacement Value (2016$M), $678.8M Total

Asset	Replacement Cost ($M)
Road Network (including bridges, sidewalks, signals, signs, lights, trees)	$246.1
Wastewater Network (including WPCP)	$118.5
Water Network	$132.4
Storm Network	$76.4
Parks & Recreation (including Recreation Centres)	$68.4
Buildings	$22.6
Fleet	$6.6
IT	$1.8
IT (Police)	$1.2
Machinery & Equipment	$4.9
Total	**$678.8**

Overall, 90% of town assets are in at least fair condition, weighted by replacement value, as summarized in Figure 1. The condition of the asset portfolio is based on condition assessments for roads, bridges, trails, traffic signs, ROW trees, and park trees, and the age and expected life for all other assets.

Figure 1 Asset Condition, $678.8 million (2016$M)



The assets estimated to have a Very Poor condition represent those assets that are close to, or past, the end of their Maximum Potential Life, and therefore represent assets that are expected to require renewal immediately or in the near future. The condition estimate will be improved as the Town carries out condition assessments on additional assets.

1.3 Levels of Service

Community and customer objectives for the Town are set by its Vision and Values. Town Council has set out a vision that values a safe and secure environment, and a well-maintained infrastructure. The Official Plan (2013) provides guidance for the physical development of Orangeville over a 20 year period, and provides goals that supplement the Town's Vision and Values.

To evaluate performance and confirm that its assets are meeting objectives at the higher strategic and customer levels, a Level of Service framework is proposed for the Town to track Key Performance Indictors (KPIs). This framework requires documentation of the responsibility, reporting frequency, data source, and hierarchy level at which to track data. Targets are still to be reviewed and endorsed by Council. In addition to meeting legislative requirements, the Town focuses on safety and reliability metrics that show that assets are being maintained in good condition.

1.4 Asset Management Strategy

An asset management strategy is the set of planned actions that will enable the assets to provide the desired levels of service in a sustainable way while managing risk at the lowest life cycle cost. These activities include operations and maintenance activities funded through the Operations budget, and renewal and rehabilitation activities planned through the Capital Budget.

For roads, a resurfacing period of 30 years, followed by a full reconstruction at 60 years was determined to meet the required level of service, and most accurately represent on-going Town practices. In determination of this strategy, it was assumed that operations and maintenance treatments such as crack sealing and pothole repairs were also completed during the asset lifecycle. Performing such preventative maintenance to extend pavement life is preferable to a 'do nothing' strategy in which the pavement and base would need to be replaced at earlier intervals. In general, an appropriately timed preventive maintenance treatment postpones more expensive corrective rehabilitation treatments.

The asset management strategy for other Town assets consists of replacement at the end of useful life. These maximum potential lives (MPLs) were determined in consideration of the risk level the Town is willing to accept. A higher MPL would result in greater asset deterioration and higher risk to the Town in terms of potential liabilities. Useful lives were based mainly on CityWide data that was updated based on discussions with Town staff to more accurately reflect the expected asset deterioration rate.

1.5 Financing Strategy

The long-term investment forecasts assume that existing assets will be replaced when the asset reaches the end of its Maximum Potential Life as well as resurfacing treatments for road assets. While operations and maintenance activity costs are not incorporated into the projections, the Maximum Potential Life used assumes that these preventative treatments are performed such that the asset's life is extended until the specified Maximum Potential Life. The 50-year forecast indicates that $13.24 million per year, on average, is required to maintain the existing asset network. Note that this requirement includes some renewal of lower value assets such as street lights, traffic signs, IT, machinery & equipment, and park assets that may be covered by the Operating budget. Table 2 summarizes the annual average future investment amount over the 10-year and 50-year periods.

Table 2 Average Annual Future Investment per Service Area

Asset	Annual Average 10 Year Forecast	Annual Average 50 Year Forecast
Road Network (excluding ROW Trees)	$3.40	$4.33
Water Network	$2.34	$2.00
Wastewater Network (including WPCP)	$1.83	$1.83
Storm Network	$0.02	$0.79
Parks & Recreation (including Recreation Centres)	$1.98	$2.06
Buildings	$0.59	$0.66
Fleet	$0.74	$0.66
IT (including Police IT)	$0.42	$0.45
Machinery & Equipment Total	$0.54	$0.46
Total	**$11.86**	**$13.24**

Funding shortfalls were determined by comparing the Town's Capital Budget to the future investment needs analysis (50-Year forecast). An analysis of shortfalls for IT and machinery & equipment were not included, as a significant portion of the forecasted estimate for these assets is assumed to be funded through the Operating budget. The following table summarizes the comparison for all other departments, showing a funding shortfall of $5.35 million per year. The storm network forecast is separated between sewers and ponds, as storm sewers are typically associated with the roads budget.

Table 3 Comparison of Capital Budgets to Future Investment Needs

Asset		Annual Average 50 Year Forecast	Annual Town Budget	Annual Funding Shortfall
Road Network excluding bridges and ROW trees		$4.20	$2.75	-$1.45
Bridges		$0.14	$0.16	$0.02
Water Network		$2.00	$1.66	-$0.34
Wastewater Network (including WPCP)		$1.83	$0.67	-$1.16
Storm Network		$0.79	$0.05	-$0.74
	Storm Sewers	$0.53	incl. with Roads	-$0.53
	Stormwater Pond	$0.26	$0.05	-$0.21
Parks & Recreation (including Recreation Centres)		$2.06	$0.81	-$1.24
Buildings		$0.66	$0.15	-$0.51
Fleet		$0.66	$0.72	$0.07
Total (excluding IT, Equipment, ROW Trees)		**$12.33**	**$6.98**	**$5.35**

This comparison suggests that current expenditure levels are insufficient to sustain the asset portfolio in the long-term. The 50-Year forecast indicates an average annual $1.45 million shortfall for roads, including curbs, sidewalks, signs, signals, and lights within the same budget. In the shorter term, there is a higher shortfall in the immediate future (5-year period) of $2.15 million per year. Assuming the required project work is completed in these five years, the funding requirement is significantly reduced in years 6 to 10, resulting in a lower $0.65 million shortfall per year over the 10-year forecast.

An analysis of funding sources over the past five years indicates that the Town has been relying on non-tax levy funding sources. For the road network, capital projects have predominantly been funded through water and wastewater rates and the federal gas tax, as well as grants in 2015. It is recommended that the Town review allocation of tax levy funds for road projects. The Town needs to continue performing strategic, long-term financial planning to address its reliance on alternate sources of funding and ensure adequate reserve levels for future capital requirements.

1.6 Future Improvements

The Town's continuous improvement of asset management practices and data refinement should be reflected in annual updates of this AM Plan. Improvements noted for future revisions of the AM Plan include:

- **Replacement Costs**: It is recommended that the accuracy of costs be improved through the use of current unit construction costs where PSAB values in CityWide are currently used. For facilities, It is recommended that the Town carry out an Insurance Valuation to improve the accuracy of all facility replacement values.
- **Asset inventory**: Asset areas for which granularity should be improved include storm water ponds and buildings. For buildings, the breakdown should be consistent with the asset inventory used in the building condition assessments (BCAs).
- **TCA Policy and CityWide data**: The Town is currently developing a TCA policy that will formalize the process for creating, maintaining, and disposing of assets in the database. This will improve the accuracy of the inventory by clearly identifying duplicates as well as assets no longer in service.
- **Condition**: Condition assessment information for roads, bridges, signs, trails, and trees were used in this AM Plan. For other assets, actual condition data, rather than age, will improve the understanding of the current state of assets, and improve the timing of future investment requirements.
- **Refinements to the estimated service life and treatment strategies**: As the Town establishes the costs and benefits of preventive and maintenance treatments, asset service life values should be reviewed and updated regularly to reflect observed deterioration rates and incorporate the benefits of maintenance and renewal strategies.
- **Planned Growth**: Growth assets are described in the Master Plan, Long Term Servicing Strategy, DC Background Study, and the Water and WW Rates study. It is recommended that growth assets be included in future updates to improve the future investment needs forecast.
- **Risk processes**: A risk framework should be developed to support strategic and optimized maintenance, renewal and capital programming.

2. Introduction

2.1 Purpose of the Plan

The Council's Vision for the Town of Orangeville is based on providing a safe and secure environment, and well-maintained infrastructure.

This Asset Management Plan (AM Plan) is a long range planning document that is used to support this vision, by providing a rational framework for managing the Town's assets. It provides a guide to understanding key items such as:

- The Town's strategic goals
- The Town's asset portfolio
- Levels of service and performance standards
- Demand forecasts
- Management techniques to assist in making long term funding decisions and prolonging asset life
- Lifecycle activities used to operate, maintain, renew, develop and dispose of assets
- Cash flow forecasts to sustain the Town's asset portfolio
- Key asset management practice improvement actions.

This AM Plan outlines a systematic and repeatable process in determining future investment needs for existing assets, in consideration of the required levels of service and tolerable risk. A long term (50 year) and medium term (10 year) analysis is included. This AM Plan is intended to improve the Town's ability to meet its Corporate Vision and Values in a way that best services its citizens and businesses.

2.1.1 Relationship with Other Town Activities and Planning Documents

AM planning is a key tactical (medium term) planning activity that relies on input from strategic (long term) planning activities and informs operational (short term) decision-making; the AM Plan relies on input from the Town's Vision and Official Plan, and provides a framework to assist the Town in developing appropriate budget forecasts and annual capital and operating programs.

2.1.2 Infrastructure Assets Included in the AM Plan

The AM Plan includes corporate assets operated by the Town to deliver services to the community, as summarized in the following table:

Table 4 Assets Included in this AM Plan

Level 1	Level 2
Road Network	Roads
	Curb
	Bridge
	Sidewalks
	Traffic Signals
	Signs
	Street Lights
	ROW Trees
Water Network	Watermains
	Wells
	Water Storage and High Lift Stations
	Water Meters
Wastewater Network	Sewers
	Pumping Station
	Water Pollution Control Plant
Storm Network	Storm Sewers
	Stormwater Pond
Parks & Recreation	Parks
	Facilities
Buildings	Public Works
	Facilities
Fleet	Vehicle - Light
	Vehicle - Medium
	Vehicle - Heavy
	Trailers
IT	Communication Equipment
	Computer Hardware
	Computer Software
	Electronics
	Fiber
Machinery & Equipment	Communication Equipment
	Equipment - Light
	Equipment - Medium
	Equipment - Heavy
	Fire Suppression
	Miscellaneous Machinery & Equipment

2.1.3 Key Stakeholders in the Plan

Key stakeholders of this AM Plan include:

- External Stakeholders
  - The Town of Orangeville community
  - Regulatory agencies
- Internal Stakeholders
  - Town Council
  - Chief Administrative Officer and departmental senior management
  - Departmental staff

2.2 AM Plan Framework

The content of this AM Plan details the approach and methodology taken in developing the AM Plan, and discusses the Town's assets at the network level. The body of the AM Plan is presented in a consistent framework based on the Guide for Municipal Asset Management Plans issued by the Ontario Ministry of Infrastructure.

2.3 AM Plan Development Process

The AM Plan was developed by GHD with in collaboration with Town staff. Workshops were conducted through September to November 2016 to improve the asset hierarchy, develop Levels of Service, discuss data gaps and improvements, and validate asset maintenance and rehabilitation strategies.

2.4 Future Improvements

The first version of an AM Plan will not meet all of the long term goals of a fully developed AM Plan due to gaps in data, information and business processes. It is intended that the continual improvement of asset management practices and associated data collection by the Town will result in annual updates to this document. As such, this AM Plan is a living document that will require ongoing refinement to reflect the improvement of asset management maturity within the Town over time. Improvements noted for future revisions of the AM Plan include:

- **Replacement Costs**: Inflated PSAB values are currently used for replacement costs, and it is recommended that the accuracy of costs be improved through the use of current unit construction costs. The WPCP was noted in particular as currently being undervalued in the CityWide dataset. Alder and Tony Rose Recreation asset values were increased in the inventory and future forecast analysis. It is recommended that the Town carry out an Insurance Valuation of all facilities to improve the accuracy of all facility replacement values.
- **Asset inventory**: The database for some asset areas was limited to the asset structure in CityWide. Asset areas for which granularity should be improved include stormwater

ponds and buildings. For buildings, it is recommended that the asset breakdown in CityWide be improved to be consistent with the asset inventory used in building condition assessments (BCAs).

- **Data improvements**: The CityWide database should be integrated with other department databases (currently the CityWide database does not have asset attribute information such as road lengths/widths, road type, sewer/watermain lengths and material, etc.). Unique asset identifiers are required to integrate databases. Duplication of existing assets and assets no longer in service need to be deleted from the database, and classification of assets such as trailers as vehicles versus equipment should be more clearly defined. The inventory of parks structures should also be improved in CityWide.
- **TCA Policy and CityWide data**: CityWide data was in large part used for Parks & Recreation, Buildings, IT, Machinery & Equipment, and Fleet assets. During the workshops and development of the AMP, improvements were made to the data by identification of disposed assets. The Town is currently developing a TCA policy that will formalize the process for creating, maintaining, and disposing of assets in the database. Careful consideration should be given to increasing and decreasing asset value for improvement/upgrade type entries, and policies for updating condition and installation year data. The inventory summary in Section 3 and financial forecast in Section 6 includes inventory from CityWide on signals, signs, IT, and machinery & equipment that may be funded by the Operating budget, rather than the Capital budget. Clear distinction of items considered as a Tangible Capital Asset and how other non-TCA assets are to be captured in CityWide should be defined.
- **Condition**: Condition assessment information for roads, bridges, signs, trails, and trees were used in this AM Plan. For other assets, asset condition is currently estimated based on age and expected life. Actual condition data should be used to improve the confidence in the timing of future investment needs. For water and wastewater assets, some sewers have had CCTV inspections, and watermain break history is also recorded. These inspections and breaks, however, are only recorded on paper and should be digitized, and it is recommended that the Town develop a standard process for converting this information into condition ratings. Digitizing available data and information will allow Staff to make informed decision based on historical and statistical trends.
- **Activity Costs**: It is recommended that the Town start to track activity costs so that information on resources spent on specific activities can be tracked (example: crack sealing, asphalt patching). These activities should be recorded against specific assets. This information will enable the Town to make informed decisions to effectively fund preventive versus rehabilitation treatments, and establish how increases in operating activities such as asphalt patching can help decrease more expensive capital rehabilitations in the future.
- **Refinements to the estimated service life and treatment strategies**: As the Town establishes the costs and benefits of preventive and maintenance treatments, asset service life values should be reviewed and updated regularly to reflect observed deterioration rates and incorporate the benefits of maintenance and renewal strategies.

For example, lifecycle strategies are currently assumed to be the same for all road segments. In the next AM Plan update, it is recommended that the Town identify different lifecycle strategies based on road types (example: local, collector, arterial). The future forecasts will also improve in accuracy through these improved strategies and incorporation of major rehabilitation activities such as major building repairs that need to be funded by the capital budget.

- **Planned Growth**: Growth assets are described in the Master Plan, Long Term Servicing Strategy, DC Background Study, and the Water and WW Rates study. Growth assets are discussed in this AM Plan but are not included in the future investment needs analysis. It is recommended that growth assets be included in future updates to improve the future investment needs forecast. Operations, maintenance and renewal of growth assets should also be incorporated into the forecast.
- **Risk processes**: A risk framework should be developed to support strategic and optimized maintenance, renewal and capital programming.

3. State of the Local Infrastructure

This section describes the Town's asset inventory, and provides a snapshot of the valuation, age distribution and condition of its assets. Recommendations are also provided for monitoring of the asset portfolio and collection, and reporting of data.

3.1 Asset Hierarchy and Inventory

The AM Plan includes all corporate assets owned and operated by the Town. The Town's asset inventory for these assets is summarized in Table 5.

The total replacement value of the Town's Roads, Bridges and Major Culverts, Water, and Wastewater assets is $678.8 million. Asset replacement values for linear assets in roads, water, and wastewater networks were based on unit construction costs. For most other assets, replacement value was based on the Towns' CityWide database, which uses original installation costs inflated to current day values using consumer price indices.

Table 5 Town Asset Inventory Count and Replacement Value (2016$)

Asset	Replacement Cost ($M)	Costing Method
Road Network	$246.1	
Roads	$181.85	Unit Costs
Curb	$24.27	Unit Costs
Bridge	$6.88	CityWide
Sidewalks	$13.79	Unit Costs
Traffic Signals	$2.86	Unit Costs
Signs	$0.10	Unit Costs
Street Lights	$12.22	Unit Costs
ROW Trees	$4.12	Unit Costs
Wastewater Network	$118.5	
Sewer	$83.08	Unit Costs
Pumping Station	$4.12	CityWide
Water Pollution Control Plant	$31.31	CityWide
Water Network	$132.4	
Watermain	$96.04	Unit Costs
Water Meters	$2.22	Unit Costs
Water Storage and High Lift stations	$15.69	CityWide
Wells	$18.42	CityWide
Storm Network	$76.4	
Sewer	$63.45	Unit Costs
Stormwater Pond	$12.90	CityWide

Asset	Replacement Cost ($M)	Costing Method
Parks & Recreation	$68.4	
Parks	$12.32	CityWide
Recreation Centres	$56.04	CityWide (adjusted)
Buildings	$22.6	
Facilities	$18.94	CityWide
Public Works	$3.64	CityWide
Fleet	$6.6	
Vehicle - Light	$0.74	CityWide
Vehicle - Medium	$1.09	CityWide
Vehicle - Heavy	$4.77	CityWide
Trailers	$0.02	CityWide
IT	$1.8	
Communication Equipment	$0.08	CityWide
Computer Hardware	$0.57	CityWide
Computer Software	$0.35	CityWide
Electronics	$0.25	CityWide
Fiber	$0.58	CityWide
IT (Police)	$1.2	
Communication Equipment	$0.56	CityWide
Computer Hardware	$0.58	CityWide
Computer Software	$0.01	CityWide
Electronics	$0.05	CityWide
Machinery & Equipment	$4.9	
Communication Equipment	$0.35	CityWide
Equipment - Light	$0.25	CityWide
Equipment - Medium	$0.53	CityWide
Equipment - Heavy	$1.63	CityWide
Fire Suppression	$0.58	CityWide
Miscellaneous Machinery & Equipment	$1.55	CityWide
Total	**$678.8**	

More detailed inventories based on available asset attributes are provided in the following tables. Unit construction costs are also provided as applicable for each asset class. Service lives assumed for determining condition and used in the AM strategy and future forecast (Sections 5 and 6) are also summarized.

3.1.1 Road Network Inventory

Table 6 Town Asset Inventory of Roads by Road Classification

Road Type	Length (m)	Area (m^2)	Replacement Value ($M)	Service Life (Years)
Laneway	4,440	20,635	$3.81	60
Local	76,003	592,001	$109.25	60
Minor Collector	18,395	160,788	$29.67	60
Major Collector	14,885	178,623	$32.96	60
Arterial	2900	33350	$6.15	60
Total	**116,623**	**985,397**	**$181.85**	

Table 7 Road Resurfacing and Reconstruction Unit Costs

Pavement	Unit Cost (per m2)	Curb	Unit Cost (per m)	Comment
Reconstruction	$185	Curb Reconstruction	$115	Length = 2 times road length + 40m
Resurfacing	$28	Curb Reconstruction for resurfacing	$150	25% of curb length is reconstructed

Table 8 Town Asset Inventory of Traffic Signals (Quantity 24)

Signal Component	Replacement Value ($M)	Service Life (Years)
Control Cabinet and components	$0.80	15
Heads/Backboards/lights/push buttons	$0.78	15
Poles/Bases/Arms/hangars	$0.55	30
Sub-surface /electrical/power supply	$0.73	20
Total	**$2.86**	

Table 9 Town Asset Inventory of Street Lights (Quantity 1880)

Street Lights	Replacement Value ($M)	Service Life (Years)
Light	$0.94	15
Pole, Arm, Base	$11.28	75
Total	**$12.22**	

Table 10 Town Asset Inventory of Sidewalks by Material

Sidewalk Type	Length (m)	Area (m^2)	Replacement Value ($M)	Service Life (Years)
Asphalt	5,842	11,737	$1.00	15
Concrete	109,032	150,470	$12.79	60
Total	**114,874**	**162,208**	**$13.79**	

3.1.2 Water Network Inventory

Table 11 Town Asset Inventory of Watermains by Material

Material	Length (m)	Replacement Value ($M)	Service Life (Years)
Cast Iron	10,202	$8.46	45
Ductile iron	8,937	$7.60	45
Copper	455	$0.37	75
PVC	85,716	$73.10	75
PVC Series 160	4,261	$3.44	45
PVC / DI (306)	398	$0.39	75
Asbestos Cement	2,615	$2.45	45
Unknown	290	$0.23	75
Total	**112,874**	**$96.0**	

Unit construction costs were used to develop the valuation for watermains. These costs are summarized in the following table:

Table 12 Town Asset Inventory of Watermains by Size (Diameter)

Size (mm)	Length (m)	Unit Cost (per m)
50-150	63,903	$807
200-250	26,705	$811
300-350	22,266	$1,024
Total	**112,874**	

3.1.3 Wastewater Network Inventory

Table 13 Town Asset Inventory of Sanitary Sewers by Material

Material	Length (m)	Replacement Value ($M)	Service Life (Years)
Asbestos Cement	25,001	$20.43	75
Concrete	4,075	$4.33	75
HDPE	895	$0.72	75
PVC	57,753	$46.71	75
Vitrified Clay	11,802	$10.50	75
Unknown	394	$0.39	75
Total	**99,920**	**$83.08**	

Table 14 Town Asset Inventory of Sanitary Sewers by Size (Diameter)

Size (mm)	Length (m)	Unit Cost (per m)
50-200	67,729	$805
250-300	19,081	$811
350-400	7,177	$836
450-750	5,932	$1,200
	99,920	

3.1.4 Storm Network Inventory

Table 15 Town Asset Inventory of Storm Sewers by Size (Diameter)

Size (mm)	Length (m)	Replacement Value ($M)	Unit Cost (per m)	Service Life
200-250	5,502	$2.97	$540	75
300-375	34,749	$20.53	$591	75
400-450	11,175	$8.12	$727	75
500-525	6,498	$5.60	$862	75
600-800	11,024	$11.26	$1,021	75
825-1200	8,340	$11.15	$1,337	75
1350-1500	1,090	$2.07	$1,900	75
Elliptical	1,032	$1.75	$1,700	75
Total	**79,411**	**$63.45**		

3.1.5 Parks & Recreation Inventory

Table 16 Town Asset Inventory of Park Assets

Parks & Recreation	Replacement Value ($M)	Service Life (Years)
Baseball Diamond	$0.98	20
Basketball Court	$0.08	20
Bleachers	$0.04	15
Fencing	$0.27	15
General Land Improvements	$2.14	10 to 20
Landscaping	$0.07	15 to 20
Lights	$1.07	15
Parking Lot	$0.26	15
Pedestrian Bridge	$0.02	20 to 30
Playground	$1.33	20
Sidewalk	$0.00	15
Skate Park	$0.43	20
Soccer Field	$0.35	15 to 20
Splash Pad	$0.82	15 to 50
Sports Pad	$0.11	15
Structure	$0.74	20 to 50
Tennis Courts	$0.31	20
Trails	$2.29 ($265 per m)	15
Trees	$0.81 ($600 per tree)	-
Walkway	$0.20	15 to 30
Total	**$12.32**	

The Township's Mill Creek and Credit Creek trails total 8.7 km of asphalt trails. The Township also owns and maintains four boardwalks and two gravel trails for which length is not currently available in the dataset. These additional trails are not included in the inventory. The dataset includes park structures listed in the CityWide dataset. The Town maintains a separate inventory of park structures that needs to be matched and aligned with the CityWide data.

Table 17 Town Asset Inventory of Recreation Facilities

Recreation Facilities	Replacement Value ($M)	Service Life (Years)
Alder Recreation Centre	$36.04	Varies by component (generally follows Buildings Table 18)
Tony Rose Recreation Centre	$20.00	
Total	**$56.04**	

Based on discussions with Town staff, the two recreation facilities were undervalued in CityWide data, and each asset was increased by a proportion such that the overall Alder Recreation Centre value totaled $36 million. Similarly, Tony Rose Recreation Centre assets were increased to total $20 million.

3.1.6 Buildings Inventory

Table 18 Town Asset Inventory of Building Assets

Buildings	Replacement Value ($M)	Service Life (Years)
Structure	$10.24	75
Roof	$0.83	20
HVAC	$1.08	20
Mechanical	$0.56	15
Electrical	$1.06	15 to 30
Plumbing	$0.34	20
Building Improvements	$5.99	5 to 75
Landscaping	$0.11	15
Parking Lot	$1.77	15
Buildings	$0.50	50
Small Structure	$0.07	15 to 20
General Land Improvements	$0.02	50
Total	**$22.57**	

3.1.7 Fleet Inventory

Table 19 Town Asset Inventory of Fleet Assets

Fleet	Replacement Value ($M)	Service Life (Years)
Vehicle - Light	$0.74	5 to 10
Vehicle - Medium	$1.09	5 to 18
Vehicle - Heavy	$4.77	7 to 20
Trailers	$0.02	8 to 10
Total	**$6.63**	

3.1.8 IT Inventory

Table 20 Town Asset Inventory of IT Assets

IT	Replacement Value ($M)	Service Life (Years)
Communication Equipment	$0.08	5 to 20
Computer Hardware	$0.57	4 to 5
Computer Software	$0.35	5 to 15
Electronics	$0.25	5 to 15
Fiber	$0.58	50
Total	**$1.84**	

Table 21 Town Asset Inventory of Police IT Assets

Police IT	Replacement Value ($M)	Service Life (Years)
Communication Equipment	$0.56	5
Computer Hardware	$0.58	5
Computer Software	$0.01	5
Electronics	$0.05	5
Total	**$1.20**	

3.1.9 Machinery & Equipment Inventory

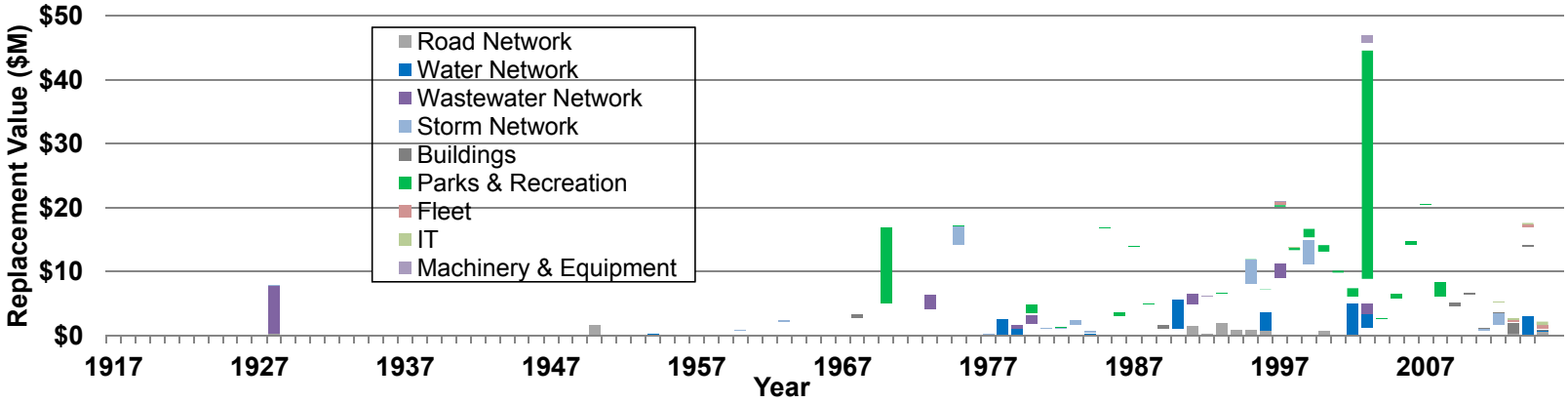
Table 22 Town Asset Inventory of Machinery & Equipment Assets

Machinery & Equipment	Total	Service Life (Years)
Communication Equipment	$0.35	5 to 25
Equipment - Light	$0.26	4 to 20
Equipment - Medium	$0.55	5 to 20
Equipment - Heavy	$1.63	4 to 20
Fire Suppression	$0.58	5 to 10
Miscellaneous Machinery & Equipment	$1.55	4 to 25
Total	**$4.93**	

3.2 Installation Profile of Assets

The installation profile of the asset portfolio shows the replacement value of assets installed over the past 100 years (see following figure). The Profile does not include some Road network and Parks & Recreation assets for which installation years were not provided (roads, traffic signs, trails and ROW and park trees). Figure 2 reflects the moderate growth of the City during the 1970's through to the mid 2000's.

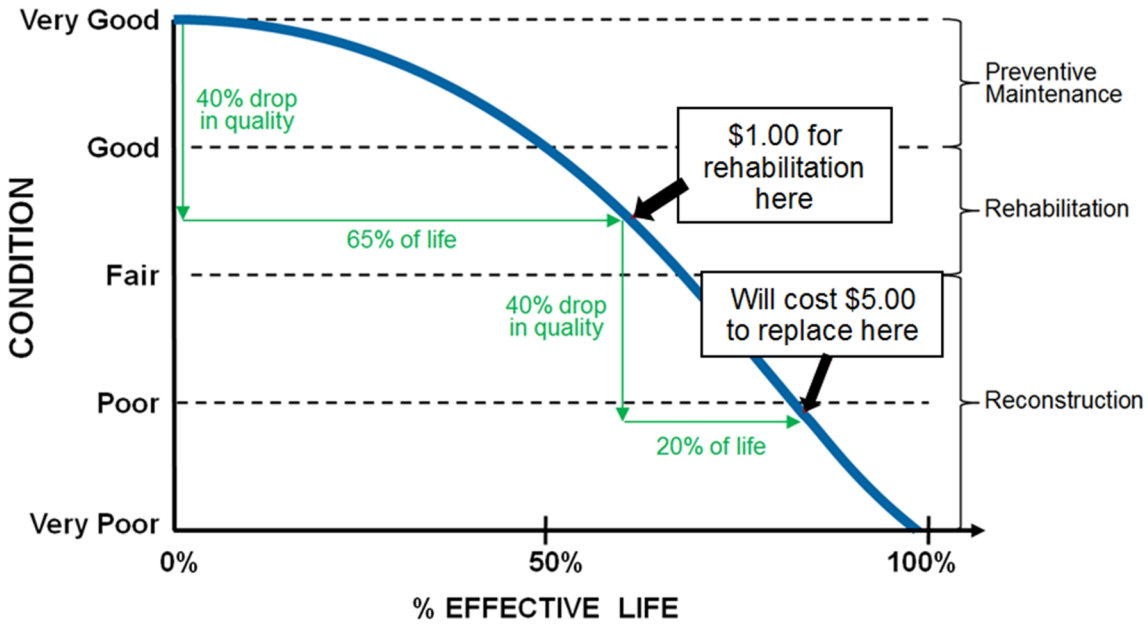
Figure 2 Asset Installation Profile | Overall Network (2015$)



3.3 Asset Condition

In this AM Plan, the term “condition” refers to the degree of physical deterioration of the asset. Asset condition is a measured assessment of an asset’s current position or place on the asset deterioration curve. The typical pavement lifecycle is illustrated in the figure below which shows the relationship between the condition and effective life (i.e., age). Pavement typically deteriorates slowly at first and then more rapidly as the pavement nears the end of its useful life. A key observation is that it is far more cost effective to maintain and rehabilitate pavements before they reach a condition where the only option is costly reconstruction. For pavement, preventive maintenance and rehabilitation activities can increase the life of the asset and delay expensive reconstruction costs, resulting in lower lifecycle costs. Therefore, it is important to understand the asset’s current condition to implement optimal treatments at the right time such that lowest lifecycle strategies are employed.

Figure 3 Typical Asset Decay Curve



An ongoing condition assessment program evaluates current condition, determines rate of deterioration over time, and informs the most beneficial type and timing of treatment.

3.3.1 Condition Rating – Roads

The Town retained Triton Engineering Services Limited to undertake an update to the Town’s Road Needs Study for the end of 2015. Each road and laneway section was inspected and assessed a condition rating in November of 2015. In this AMP, the Structural Adequacy score is used as the key assessment field. Structural Adequacy is a score from 1 to 20 (20 is new pavement), and it represents the current condition of the

roadway section taking into account its construction and improvement history. In this AM Plan, a 5 level scale is used to be consistent with the age-based condition ratings developed for all other assets for which condition information is not available (refer to Section 3.3.3). This 5 level rating scale is shown in the following figure:

Figure 4 Asset Condition Scales: Roadways

Structural Adequacy	Condition
20 19 18 17 16	Very Good
15 14 13 12	Good
11 10 9 8	Fair
7 6 5 4	Poor
3 2 1	Very Poor

3.3.2 Condition Rating - Bridges

The Ontario's Structure Inspection Manual (OSIM) sets standards for the visual inspection and condition rating of bridges every two years. The standards include specifications on pre and post inspection operations, inspector's qualifications, inspection frequency, inspection descriptions, and technical information to clearly identify structural elements, material defects and performance deficiencies.

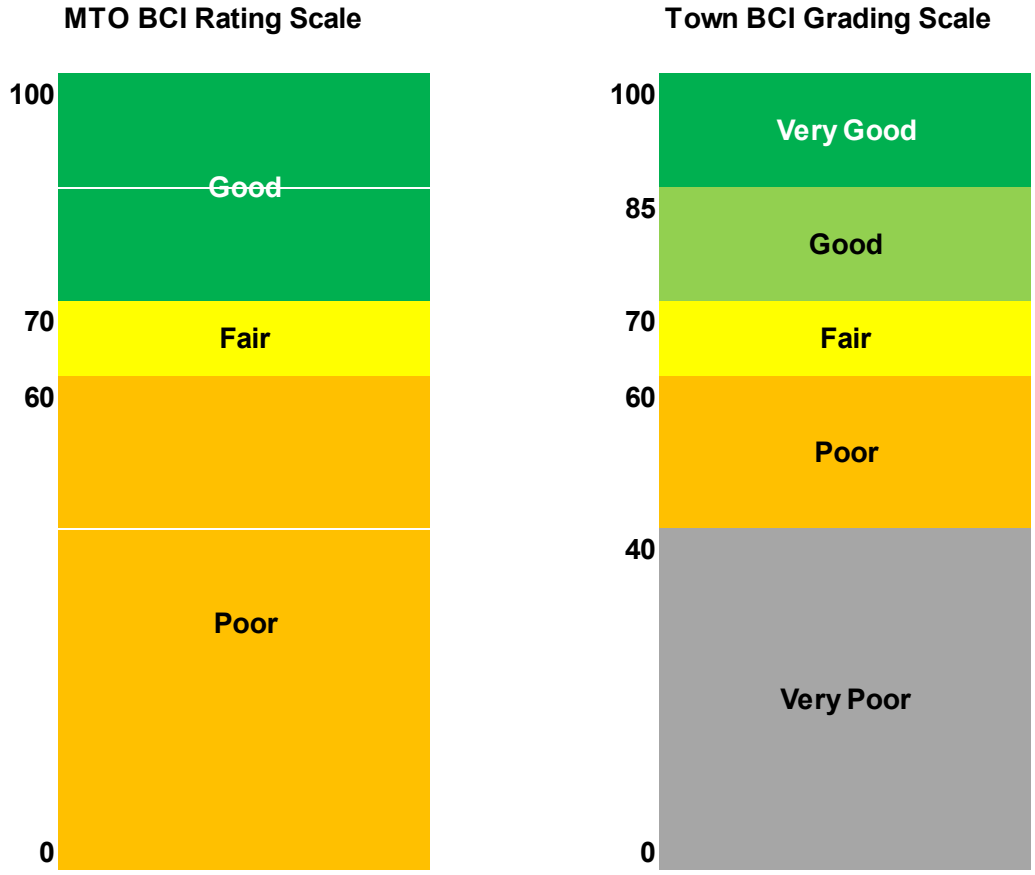
Bridge condition is typically reported in terms of a single value - the Bridge Condition Index (BCI). The BCI is calculated as a weighted average of the condition states for each of the elements making up the structure. Since elements are not of equal importance to the structure, the index is weighted according to the relative value or importance of each element of the total.

BCI ranges from 100 (new) to 0 (all elements being in poor condition). BCI condition ratings from the Town's 2014 inspections are incorporated in this AM Plan. The ratings

indicate whether or not significant maintenance work is required on a bridge in the near term to keep the bridge in service. The BCI rating doesn't necessarily indicate a bridge's ability to carry traffic loads. It helps determine which bridges may need repair or replacement, not the potential for collapse.

According to the Ministry of Transportation, Ontario (MTO), bridges with a BCI of 70 or above are generally considered to be in Good or Very Good condition, and below 60 to be in Poor or Very Poor condition. Similar to road assets, a 5 level scale is used to be consistent with the age-based condition ratings developed for all other assets for which condition information is not available (refer to Section 3.3.3). This 5 level rating scale is shown in the following figure:

Figure 5 Asset Condition Scales: Bridges



3.3.3 Condition Rating Methodology – Traffic Signs

The Town maintains an inventory of all traffic signs, and provides ratings on retro reflectivity, a contrast assessment, and overall sign condition. Ratings in the Town inventory were provided as good, fair, and poor. For purposes of this AMP, overall sign condition was mapped to the same good, fair, poor groups on the five-point scale.

Figure 6 Asset Condition Scales: Traffic Signs

Town Sign Condition	Condition Rating
Good	Very Good
-	Good
Fair	Fair
-	Poor
Poor	Very Poor

3.3.4 Condition Rating Methodology – ROW Trees

The Town maintains an inventory of all ROW trees, and provides ratings on overall health, wood condition, and crown condition. For purposes of this AMP, overall tree health was used to determine the tree on the five-point scale. Town ratings were provided as good, fair, poor, and dead. For purposes of aligning with the five-point scale, the following figure summarizes the mapping of overall health condition to the AMP scale.

Figure 7 Asset Condition Scales: ROW Trees

Town Tree Overall Health	Condition Rating
	Very Good
Good	Good
Fair	Fair
Poor	Poor
Dead	Very Poor

3.3.5 Condition Rating Methodology – Park Trees

The Town had a Park Tree Inventory report completed in 2015. This report summarized the general canopy condition of trees for each park. Town ratings were provided as good, fair to good, fair (satisfactory), poor to fair, poor, and dead. For purposes of aligning with the five-point scale, the following figure summarizes the mapping of park tree condition to the AMP scale. Note that the conditions used from the report were generalized tree condition for all the trees on a park by park basis. The more detailed inventory of tree condition by individual tree was not analyzed in this AMP.

Figure 8 Asset Condition Scales: Park Trees

Town Condition	Condition Rating
Good specimens will have less than 10% dead wood, strong indication of compartmentalization and healing of any wounds and good structural habit with no defects.	Very Good
Fair to Good - most physical characteristics illustrate a good specimen, but with minor indicators of stress.	Good
Fair (satisfactory) - specimen has between 10% and 30% dead wood, size and the frequency of wounds are evident, minor structural defects and reduced crown size.	Fair
Poor to Fair - Stronger display of poor quality attributes, but with indication the specimen is not in total decline.	Poor
Poor (declining) - tree has more than 30% dead wood, wounds are quite prevalent with greatly reduced evidence of healing (early leaf drop and evidence of insect and disease affliction) and major structural defects includes heavy suckering. Dead - tree has no indicators of present or future growth.	Very Poor

3.3.6 Condition Rating Methodology - Other Assets

Due to an incomplete record of asset condition for assets other than roads, bridges, signs, trees, and trailways, the condition ratings for the remaining assets are based on asset age as a percentage of expected useful life. Estimates of asset condition as Very Good, Good, Fair, Poor, and Very Poor (5-level scale) were made using linear and non-linear deterioration assumptions.

In this AM Plan, it is assumed that the deterioration curve is more accurately modelled with a non-linear rate. For these assets, the deterioration is assumed to occur in the latter stage of the asset life:

Table 23 Useful Life by Asset Type (Non-Linear Deterioration)

Condition	Age
Very Good	>90% life remaining
Good	>50% life remaining
Fair	>25% life remaining
Poor	>10% life remaining
Very Poor	Up to 10 % life remaining

The generic rating scale (Very Good, Good, etc.) is used to translate condition information in a way that the public, council and senior management can understand. An industry standard general condition grading system that provides context of Very Good to Very Poor asset condition is summarized in the table below, based on the 2011 International Infrastructure Management Manual (IIMM).

Table 24 General Condition Grading System (Source: IIMM, 2011)

Grade	Description	Condition Criteria)
VG	Very Good	Very Good Condition – Only normal maintenance required.
G	Good	Minor Defects only – Minor maintenance required (5%).
F	Fair	Maintenance Required to Return to Accepted Level of Service – Significant maintenance required (10-20%).
P	Poor	Requires Renewal – Significant renewal/upgrade required (20-40%).
VP	Very Poor	Asset unserviceable – Over 50% of asset requires replacement.

Condition ratings are estimated based on the percentage of life remaining (age as percentage of useful life), as summarized in the preceding tables. In general, the Maximum Potential Life (MPL) used in this AM Plan for each asset type is consistent with the values indicated in the Town's Tangible Capital Asset Policy and By-Law. For some asset categories, a more realistic MPL was determined and used in the AM Plan in order to be consistent with actual Town renewal practices. A summary of MPL by asset type is summarized in the following table. It is noted that the Water Pollution Control Plant is comprised of an extensive list of various asset types, and only the main assets for the facility are shown. Service life is summarized in Section 3.1 for Parks & Recreation, Buildings, Fleet, IT, and Machinery & Equipment assets.

Table 25 Maximum Potential Life by Asset Type

Asset		Service Life (Years)
Road Network		
Road Resurfacing		30
Road Reconstruction		60
Bridges		80
Sidewalks		See Section 3.1
Traffic Signals		See Section 3.1
Signs		10
Street Lights		See Section 3.1
ROW Trees		-
Water Network		
Watermains		45 / 75
Water Meters		15
Vertical Infrastructure		
	Connecting Piping	75
	Electrical Equipment	25
	Mechanical Equipment	25

	Standby Generator	25
	Structures (including plumbing)	50
	Instrumentation Control	15
	Well	25
	Disinfection	25
	Filtration	25
	Chlorine Contact Infrastructure	75
Wastewater Network		
Sewers		75
Pumping Station		
	Connecting Piping	75
	Electrical Equipment	25
	Mechanical Equipment	25
	Pumping Equipment	25
	Standby Generator	25
	Structures (including plumbing)	50
Water Pollution Control Plant		
	Mixers (typical)	5
	Electrical Equipment	25
	Mechanical Equipment	25
	Connecting Piping	75
	Flow Meters (typical)	20
	Pumps (typical)	25 to 35
	Piping, Valves (typical)	25
	Filter	30
	Heat Exchanger	30
	Standby Generator	25
	Digester	75
	Structures (Chlorine contact, filter, clarifier, aeration tanks)	100
	Chlorine Contact Chamber	30
Storm Network		
Sewers		75
Storm Management Ponds		50
Parks & Recreation		See Section 3.1
Buildings		See Section 3.1
Fleet		See Section 3.1
IT		See Section 3.1
Machinery & Equipment		See Section 3.1

3.3.7 Asset Condition Summary

The following figures summarize the condition of the asset portfolio in accordance with the 5-level scale, based on condition data for the assets described in Section 3.3.1 to 3.3.4 and the age and expected life for all other assets. The proportion of assets determined in each condition rating level is weighted by replacement value (2016$). The assets estimated to have a Very Poor condition represent those assets that are close to, or past, the end of Maximum Potential Life, and therefore represent assets that are expected to require renewal immediately or in the near future. This renewal requirement is discussed further in the Future Investment Needs analysis in Chapter 0.

Figure 9 Road Network – Roads and Curbs: Condition, $206.1M (2016$)

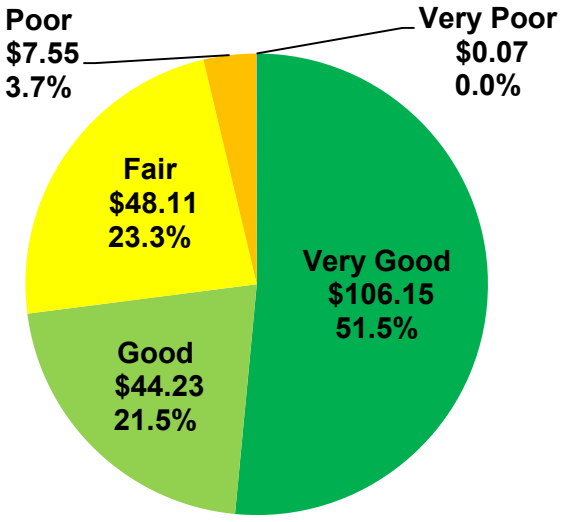


Figure 10Road Network – Bridges: Condition, $6.9M (2016$)

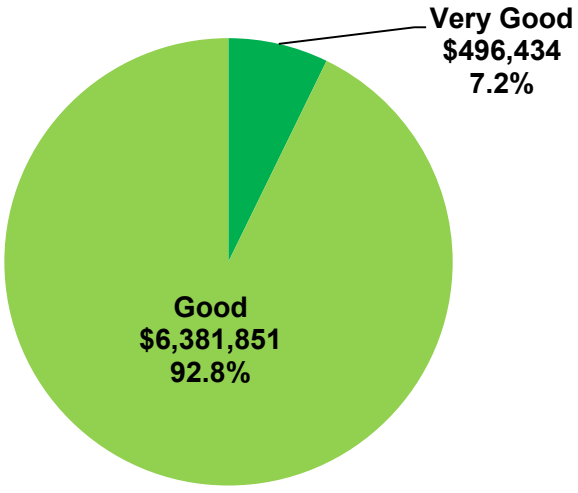


Figure 11 Road Network – Sidewalks: Condition, $13.8M (2016$)

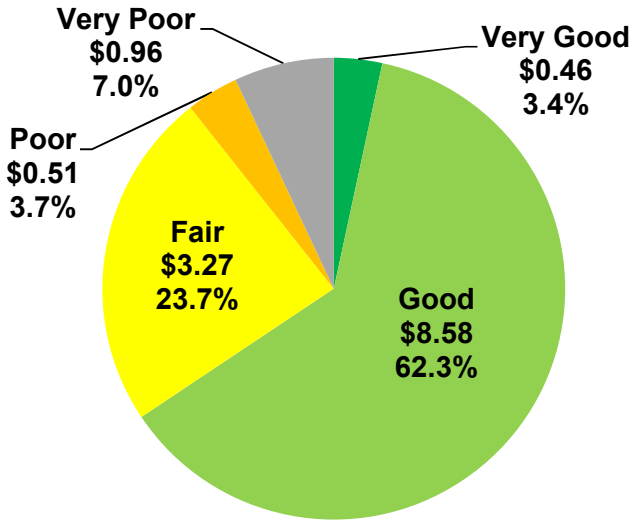
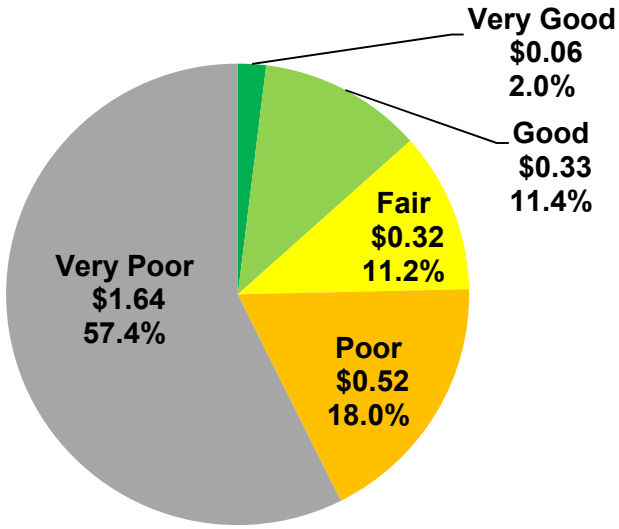


Figure 12 Road Network – Traffic Signals: Condition, $2.9M (2016$)



The signals dataset included a breakdown of signal components. Installation age was assumed to be the same for the control cabinet, signal heads, poles and sub-surface, resulting in an overstated portion of assets estimated as “very poor”. It is recommended that the dataset be improved with updated installation dates for renewal of components (signal heads, controls) that are more frequently replaced than the signal pole/base.

Figure 13 Road Network – Street Lights: Condition, $12.2M (2016$)

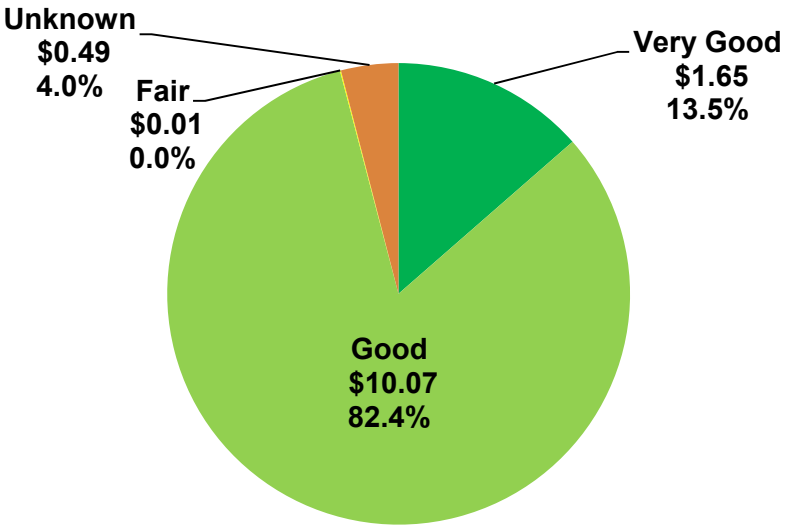


Figure 14 Road Network – Traffic Signs: Condition, $104,800 (2016$)

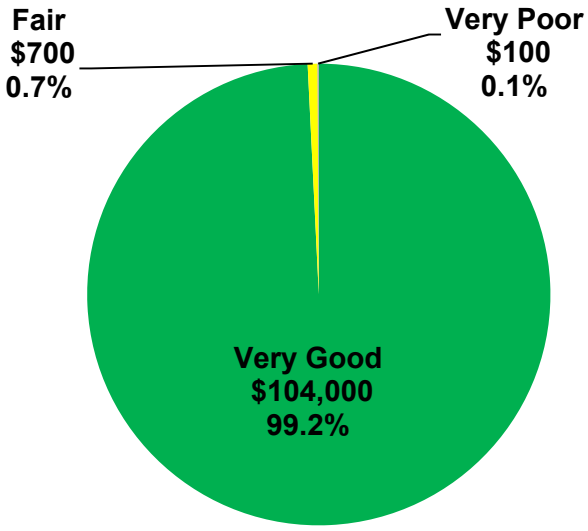


Figure 15 Road Network – ROW Trees: Condition, $4.1M (2016$)

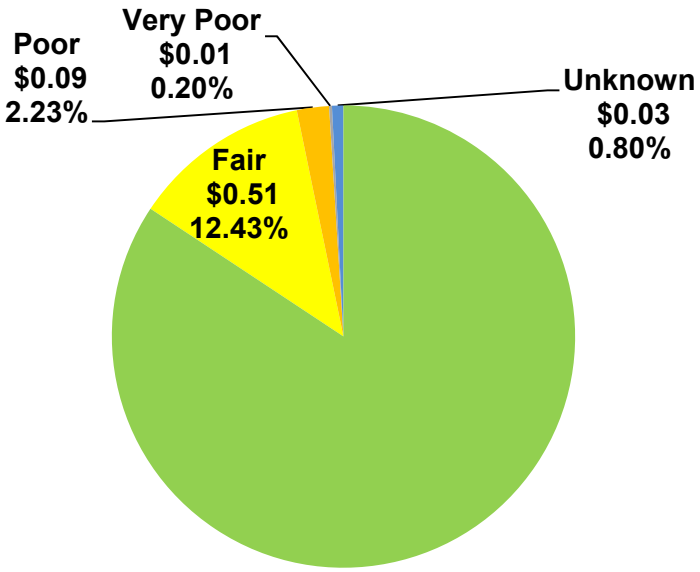
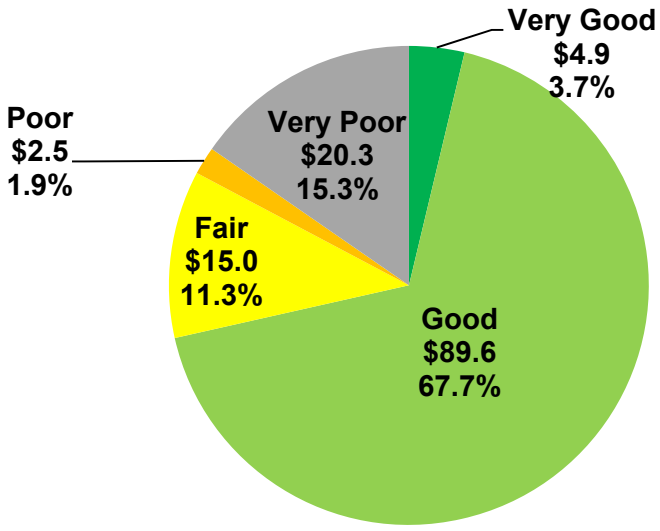


Figure 16 Water Network: Condition, $132.4 M (2016$)



The water network consists of $20.3 million in Very Poor assets. $10.2 million consists of cast iron and asbestos concrete watermains that are in the last 10% of its estimated 45 year service life. $2.1 million of water meters are also classified as Very Poor because they were installed in 2002 and close to replacement based on a 15 year service life.

Figure 17 Wastewater Network: Condition, $118.5M (2016$)

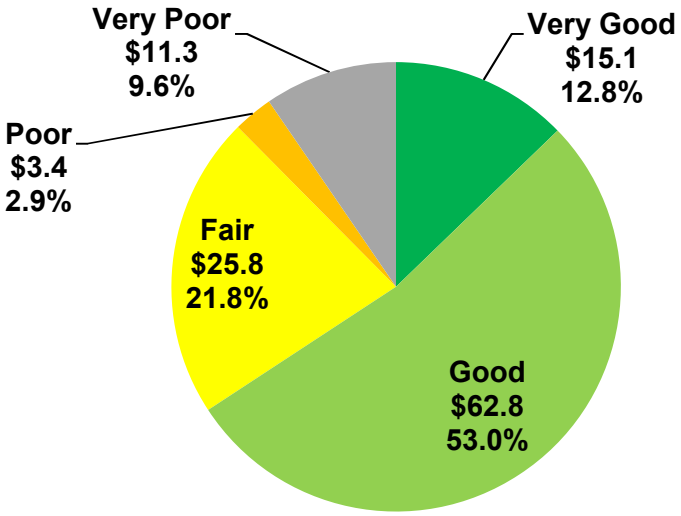


Figure 18 Storm Network: Condition, $76.4 M (2016$)

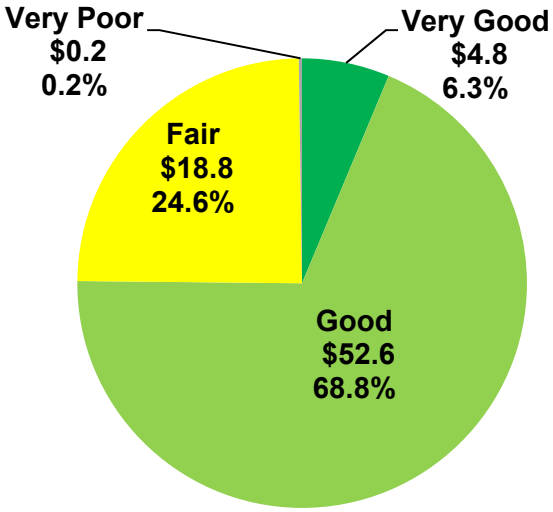
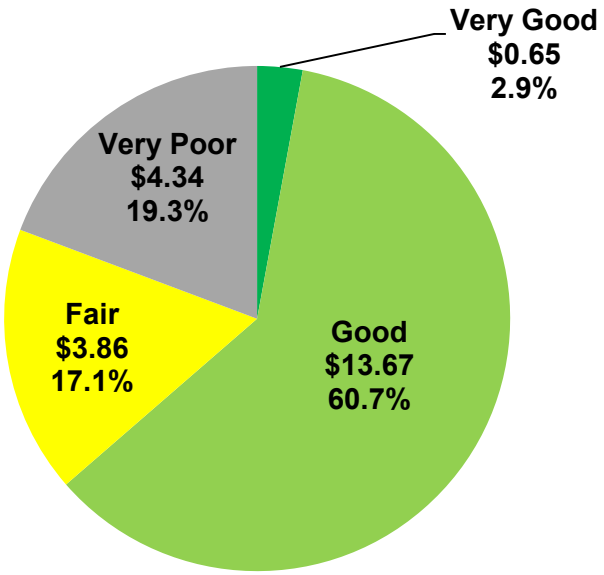
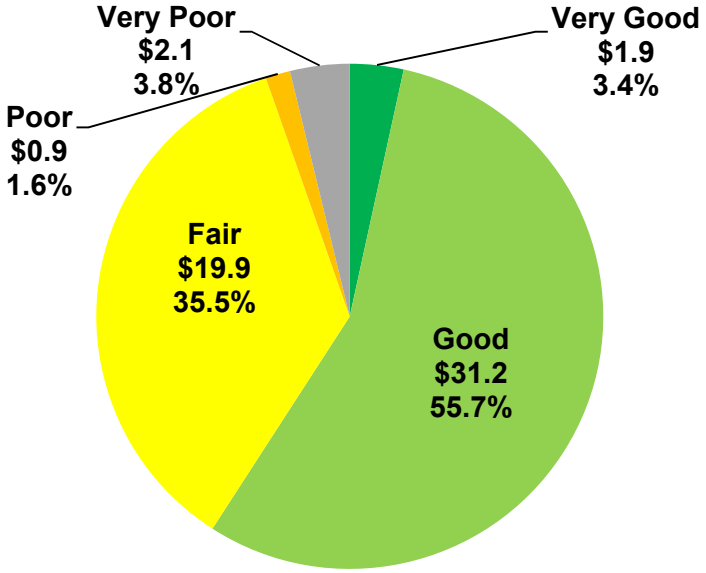


Figure 19 Buildings: Condition, $22.5M (2016$)



Building condition was estimated based on age from CityWide data but was supplemented with additional qualitative information available from the Town on past renewal work performed on the Town hall, as well as roof condition assessments on Town Hall and the fire department facility.

Figure 20 Parks & Recreation - Facilities: Condition, $56.0M (2016$)



A roof assessment was used to update condition information on the Alder facility.

Park assets, IT, and Machinery & Equipment generally show a higher proportion of poor assets because the asset listing in CityWide is not as accurate and the Town is currently developing processes for removing disposed of assets from the inventory that no longer exist. IT and machinery & equipment are also renewed at end of life, resulting in an expected proportion of poor assets using the age-based assessment.

Figure 21 Parks & Recreation – Park Assets, including Trails and Park Trees: Condition, $12.3M (2016$)

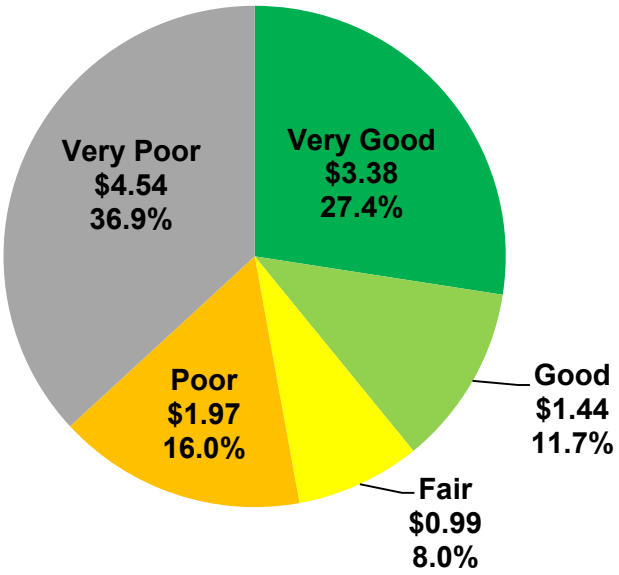


Figure 22 IT (including Police IT): Condition, $3.0M (2016$)

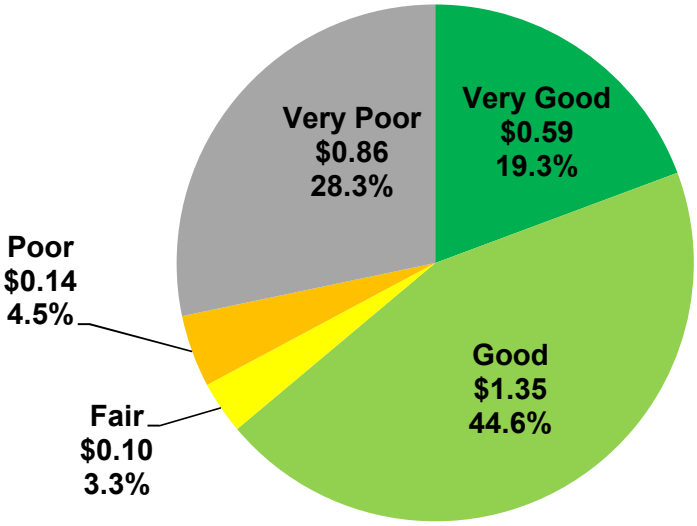


Figure 23 Fleet: Condition, $6.6M (2016$)

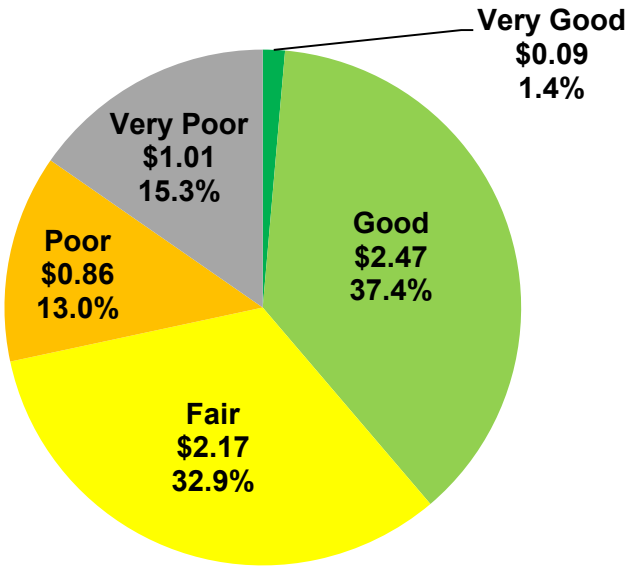
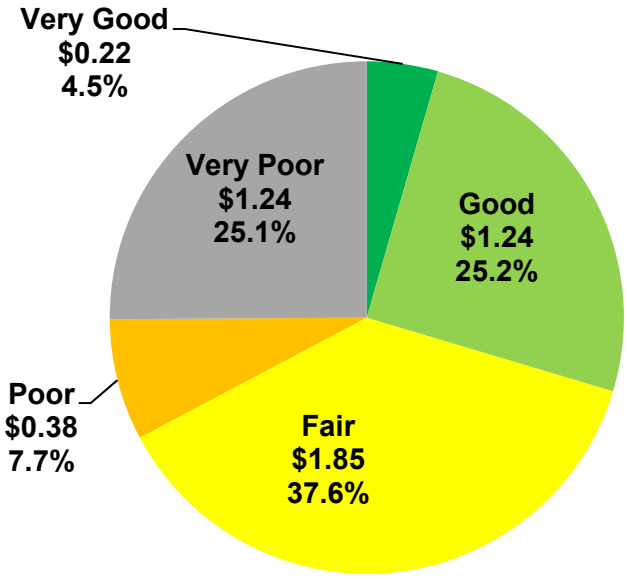


Figure 24 Machinery & Equipment: Condition, $4.9M (2016$)



3.4 Monitoring and Improvement

As summarized in Table 5, for some assets, the replacement value was estimated based on historical installation cost inflated to the current year based on the Town's financial database system (CityWide). This may not be an accurate reflection of current

replacement value due to changes beyond inflation, such as changes in construction costs or technology. As such, for future updates of the AM Plan, it is recommended that replacement values be updated based on current benchmark unit costs.

In this AMP, recent road condition was incorporated to more accurately determine renewal and rehabilitation requirements and refine the future investment needs analysis. Similarly, for water and wastewater assets, CCTV inspections and watermain break history records should be digitized, and incorporated into the condition ratings in the next AM Plan. Actual condition data, rather than estimated condition based on age, will more accurately reflect the effectiveness of maintenance and renewal activities and future funding requirements. In this AMP, condition summaries with a significant portion of “Very Poor” assets based on age may in fact be in “Fair” or “Good” condition.

Other assets, such as sidewalks, playgrounds, and trails are regularly inspected by the Town. It is recommended that the Town record a numerical condition rating consistent with the 1 to 5 scale used in this AMP to begin documenting this information digitally for use in future versions of this AMP and maintenance/rehabilitation planning. Building condition assessments should be structured in alignment with a consistent building inventory across all facilities, with replacement costs and condition evaluated at the same level of granularity.

4. Levels of Service

4.1 Introduction to Levels of Service

Levels of Service are statements that describe the outputs and objectives the Town intends to deliver to a range of citizens and businesses. Developing, monitoring and reporting on Levels of Service are all an integral part of an overall performance management program which is aimed at improving service delivery and demonstrating accountability to the Town's citizens and businesses, including provision of value for money.

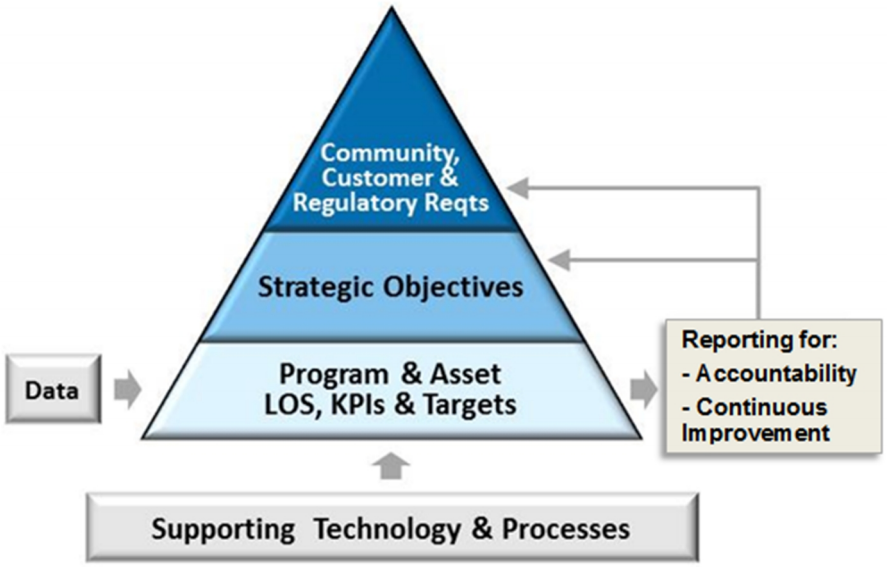
Levels of service statements are typically grouped into the following categories:

- **Community, Customer, Regulatory (External Outcomes):** The objectives imposed on the organization by outside entities such as citizens, businesses and regulatory agencies, which are often related to safety
- **Strategic (Internal Outputs):** The objectives imposed on the organization internally such as those outlined in strategic plans
- **Programs and Assets (Internal Inputs):** The objectives of programs and assets.

Note that External Outcomes are often referred to as "Customer" Levels of Service (i.e. what citizens and businesses get), while Internal Inputs are typically referred to as "Technical" Levels of Service (i.e. what the Town provides).

Levels of Service objectives are often viewed as a hierarchy of objectives with customers and regulators at the top, followed by organizational strategic objectives, programs, and assets. A Levels of Service hierarchy is depicted in the following figure. For the program and asset level objectives, typically one or more key performance indicators (KPIs) track performance against set targets.

Figure 25Levels of Service Hierarchy



This section of the AM Plan outlines those Levels of Service currently reported and those proposed by the Town for future reporting, including customer expectations, legislative requirements, strategic goals, and program & asset LOS with associated KPIs.

Typical customers of government services desire available, cost effective, reliable, responsive, safe, suitable and sustainable services. These customer values (also known as service standard attributes) are outlined in Table 26 below, and they provide a means with which to categorize objectives.

Table 26 Typical Customer Values

Need	Description
Available	• 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
Reliable	• Services are predictable and continuous
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

4.2 Community, Customer, and Regulatory LOS

Understanding the expectations of the Town's citizens and businesses is an important component of providing the right services at the right levels to the community. The Town's LOS is founded on a clear understanding of the ultimate outcomes to which programs and assets contribute. These external outcomes include objectives from the Town's Vision & Values, Official Plan, and Legislative requirements.

The Council sets out a vision that values a safe and secure environment, and a well-maintained infrastructure:

Our Vision:

We value our heritage, natural environment, and small town appeal while embracing the future with a progressive and innovative spirit.

We Value:

- A barrier-free community
- Encouraging community involvement
- Spending taxpayers' money wisely and responsibly
- Encouraging a healthy lifestyle
- Caring for the environment
- Enhancing the town's environment
- Encouraging business growth
- Supporting arts and culture
- Exceptional recreational and leisure opportunities
- A safe and secure environment
- Honouring our heritage
- A well-maintained infrastructure

These Visions and Values set the community and customer objectives for the Town of Orangeville. The Official Plan (2013) provides guidance for the physical development of Orangeville over a 20 year period, and provides goals that supplement the Town's Vision and Values. The following goals from the Official Plan are specific objectives for the Town's corporate assets:

Section B2.6 (Open Space Recreation) relates to available and suitable parks:

- To provide for recreation needs by maximizing recreation opportunities on existing open space areas and facilities, while planning for an integrated parkland system to meet the future need of Orangeville's residents.

Section B2.9 (Transportation) relates to a safe, available, reliable, and suitable transportation network:

- To provide a transportation network for the safe and efficient movement of people and goods within and through the Municipality.
- To encourage a reduction in the dependence on the use of motor vehicles through the introduction or extension of such things as bicycle lanes, multi-purpose trails and public transit opportunities.

Section B2.10 (Services) relates to reliable, available, cost effective, and sustainable services (water, wastewater, stormwater, and solid waste):

- To ensure a high standard of water supply, sanitary sewage treatment, stormwater management and solid waste disposal is maintained within the Municipality.
- To ensure that all municipal services meet the needs of present and future residents and businesses in an efficient and environmentally sensitive manner.

Section B2.13 (Community Improvement) relates to safe, reliable, and suitable facilities:

- To support the maintenance and rehabilitation of existing buildings and property, and to promote the logical infilling of existing residential neighbourhoods, in order to extend the useful life of individual properties and improve neighbourhood quality.

Section B2.20 (Sustainability) relates to overall Town objectives to implement sustainable practices that protect the natural environment:

- To work towards imbedding sustainability principles and processes into the day-to-day decision making of all matters relating to the economic, social, cultural and environmental development of the Town.
- To encourage the Municipality to be a responsible consumer and to encourage development in the Town to take place in a responsible manner.

The third main source of external outcomes is legislative requirements. Legislated requirements define the standards according to which the Town is legally obligated to provide services to the community, and these standards typically relate to asset safety and reliability. For water, there are applicable drinking water regulations; for wastewater, the Water Pollution Control Plant must be operated in compliance with the Certificate of Approval or Environmental Compliance Approval; for roads, maintenance is proposed to meet the Minimum Maintenance Standards. Bridges are regulated to be inspected every 2

years. Other examples include CSA inspections for playgrounds and sampling requirements for pools and splash pads.

4.3 Strategic LOS

In order to achieve the vision for the Town, the Strategic Plan was developed in 2003 based on an extensive consultation with a wide range of community stakeholders. The following is a statement of the Future Vision of the Town of Orangeville.

Orangeville will sustain and indeed enhance its strong economic, community, cultural and environmental well-being by focusing on the following key areas of importance:

- Maintenance and enhancement of Orangeville's overall quality of life and small town appeal
- Protection of Orangeville's heritage, cultural and natural environments
- An approach to growth management that balances opportunities for residential and employment growth while maintaining the community's natural and historical character
- Providing an economic development strategy that supports the retention and expansion of local businesses, and seeks new opportunities
- Development of an equitable, efficient and accountable municipal service delivery system, that allows for regular public consultation.

The Strategic Plan (2003) also identifies the following goals relevant to Town assets:

- Ensure that the Town's water supply will accommodate future land use changes and/or population growth.
- Ensure that the Town's sewage treatment and disposal capacity will accommodate future land use changes and/or population growth.
- That Orangeville has a safe, effective, and efficient transportation network that enhances both the quality of life and the economic health of the community.
- To provide high-quality recreational facilities to our residents. To pursue opportunities to preserve Orangeville's natural heritage and make them accessible to the community.

These strategic goals demonstrate objectives imposed on the organization internally, and they provide a link between the high level customer objectives and the detailed program and asset objectives.

4.4 Program and Asset LOS

A level of service framework identifies the information required to track key performance indicators (KPIs). Documenting the responsibility, reporting frequency, data source, and hierarchy level dictate how, by whom, and when each metric is to be tracked. The goals and performance tracking enable the Town to evaluate performance and confirm that its assets are meeting objectives at the higher strategic and customer levels.

The following tables summarize those metrics for which goals have been identified. These goals are still to be reviewed and endorsed by Council. Once goals have been approved, it is recommended that the Town track and record performance for each approved metric and determine required improvements by comparing actual performance to targets over time. The Town currently has processes and procedures in place toward tracking some metrics. For example, the Town maintains records for watermain breaks and recently completed a Roads Needs Study in 2015. Actual performance has been noted for bridges and roads based on actual inspection data.

4.4.1 Road Network - Key Performance Metrics

KPIs developed for the road network focus on tracking asset condition for bridges, sidewalks, and roads. The Town completed a Roads Needs Study in 2015. Bridges and culverts (spanning greater than 3m) are inspected every two years and each structure is provided with a Bridge Condition Index (BCI) score. Sidewalks inspections are also performed, and it is recommended that a 1 to 5 condition rating be recorded during each inspection. Condition scores for roads, bridges, and sidewalks should be added to the Town's database. The number of claims due to trips and slips is also proposed as a performance measure to manage liability concerns.

Table 27 Road Network (including Bridges & Culverts) – Key Performance Metrics

Service Attribute	Program or Asset Service Objectives Description	Metric	Measure-ment Frequency	Reporting Frequency	Measurement/ Calculation	Goal (Long Term)
Safe	Bridges and culverts are in good condition such that failures are minimized	Percent of all bridges where condition is rated as Good to Very Good (by replacement value)	Every 2 years	Every 2 years	% good/very good	>75% in good to very good Actual performance (2016): 100%
Safe	Bridges and culverts are in good condition such that failures are minimized	Bridge condition score	Every 2 years	Every 2 years	Score out of 100	Each bridge/culvert rated > 50 Actual performance (2016): 100%
Safe	Sidewalks are in good condition such that trips are minimized	# of claims due to trips/slips per km per year on sidewalks	On-going	Annually	# of claims	Sidewalks are in good condition such that trips are minimized
Safe	Sidewalks are in good condition such that trips are minimized	Percent of all sidewalks where condition is rated as Good to Very Good (by replacement value)	annually	Annually	% good/very good (based on Score out of 1 to 5)	Sidewalks are in good condition such that trips are minimized
Reliable	The road network is maintained in good condition to enable reliable/continuous provision of services	Adherence to winter road maintenance in accordance with the Town's Winter Control Policy for roads	On-going	Annually	# of events in which the Policy was not followed	Zero events

Service Attribute	Program or Asset Service Objectives Description	Metric	Measure-ment Frequency	Reporting Frequency	Measurement/ Calculation	Goal (Long Term)
Reliable	The road network is maintained in good condition to enable reliable/continuous provision of services	Paved lane km where condition is rated as good to very good, by road classification	Every 1-4 years	Annually	% of roads in very good/good/fair condition, by road classification (based on total length)	Major Collector - 70% total length very good/ good/fair Minor Collector - 60% total length very good/ good/fair Local - 50% total length very good/ good/fair Actual Performance (2016): 96.3% of roads in at least fair condition
Responsive	Service requests are investigated within a reasonable timeframe	Response time to resident enquiries/complaints	On-going	Annually	Average time to respond to inquiry/complaint	One `business day

4.4.2 Water Network - Key Performance Metrics

For water distribution assets, watermain condition will be determined based on break history and other attribute information such as pipe age and material. On the treatment side, 100% compliance with water quality tests is expected, and well step test results reporting well efficiency are to be tracked.

Table 28 Water Network – Key Performance Metrics

Service Attribute	Program or Asset Service Objectives Description	Metric	Measurement Frequency	Reporting Frequency	Measurement/ Calculation	Goal (Long Term)
Safe	Treatment of source water to ensure drinking water meets or exceeds regulatory requirements	Treated water quality meets ODWS	On-going	Annually	Bacteriological and chemical samples meet water quality requirements	100%
Reliable	The water network provides a safe and reliable drinking water supply to its customers	Annual number of watermain breaks	On-going	Annually	Number of watermain breaks/100 km of watermain	8 or less
Reliable	The water network provides a safe and reliable drinking water supply to its customers	Supply wells are operating efficiently (step test results)	Every 2 years	Every 2 years	% Efficiency	To be determined
Responsive	Service requests are investigated within a reasonable timeframe	Response time to resident enquiries/complaints	On-going	Annually	Average time to respond to inquiry/complaint	One business day

4.4.3 Wastewater Network - Key Performance Metrics

For wastewater collection assets, sewer condition will be determined based on CCTV (Closed Circuit Television) inspections and other attribute information such as pipe age and material. Network performance is tracked based on metrics such as the number of by-pass events, sewer backups, and sanitary sewer overflow events on an annual basis. Wastewater treatment is assessed through compliance with the Environmental Compliance Approval (ECA) effluent quality requirements.

Table 29 Wastewater Network – Key Performance Metrics

Service Attribute	Program or Asset Service Objectives Description	Metric	Measure-ment Frequency	Reporting Frequency	Measurement/ Calculation	Goal (Long Term)
Safe	The wastewater network maintained such that frequency of blockages, collapses & flooding are reduced	Number of emergency sanitary sewer repairs per year	On-going	Annually	Number of events	Zero events
Reliable	The wastewater network is maintained in good condition to enable reliable/continuous provision of services	Annual number of sanitary sewer backups per 100 km of sanitary sewers	On-going	Annually	# of backups/100 km of sanitary sewer	Zero events
Sustainable	Wastewater network is managed and maintained in ways that preserve & protect the natural environment	Meet effluent criteria in WPCP ECA	Weekly	Annually	Final effluent sampling	100% Compliance
Sustainable	Wastewater network is managed and maintained in ways that preserve & protect the natural environment	Number of by-pass events --raw sewage bypass - only very extreme conditions -partial tertiary bypass - at last stage of treatment process (filters)	On-going	Annually	Number of events	Zero events

Service Attribute	Program or Asset Service Objectives Description	Metric	Measure-ment Frequency	Reporting Frequency	Measurement/ Calculation	Goal (Long Term)
Available	The wastewater network is of sufficient capacity	Sanitary sewer overflow events	On-going	Annually	Number of events	Zero events
Responsive	Service requests are investigated within a reasonable timeframe	Response time to sewer main backups	On-going	Annually	Average hours per complaint	1 hour
Responsive	Service requests are investigated within a reasonable timeframe	Time to resolve sewer main backups	On-going	Annually	Average hours per incident	4 hours
Responsive	Service requests are investigated within a reasonable timeframe	Response time to resident enquiries/complaints	On-going	Annually	Average hours per enquiry/ complaint	1 business day

4.4.4 Storm Network - Key Performance Metrics

Similar to sanitary sewers, stormwater pipe condition is to be determined based on age, material, and CCTV data.

Table 30 Storm Network – Key Performance Metrics

Service Attribute	Program or Asset Service Objectives Description	Metric	Measurement Frequency	Reporting Frequency	Measurement/ Calculation	Goal (Long Term)
Reliable	The stormwater network is maintained in good condition to enable reliable/continuous provision of services	Percent of stormwater collection system that is in good or very good condition, based on age/material/CCTV data (km good and very good condition/total km)	On-going	Annually	% in good and very good condition	To be confirmed

4.4.5 Parks - Key Performance Metrics

Park assets consist of various asset types. Playground equipment, sports fields, and water park equipment were identified as key assets for which inspections are already performed, and would benefit from also recording a 1 to 5 asset condition rating. Other performance measures include grass cutting frequencies for parks, lighting levels for sports fields, and 100% compliance of water quality sample results for water parks. The Town is currently developing a classification system for parks to establish the required performance measures by park class. Other proposed key metrics relate to individual facility needs, such as monitoring of ice thickness for skating rinks, and water sampling for pool facilities.

Table 31 Parks – Key Performance Metrics

Service Attribute	Program or Asset Service Objectives Description	Metric	Measurement Frequency	Reporting Frequency	Measurement/ Calculation	Goal (Long Term)
Safe	Water quality is acceptable for recreational uses	Routine sampling based on classification of water park	Daily/Annually	Annually	Chlorine Residual, pH	100%
Safe	Playgrounds are safe	Inspections (identifies hazards and maintenance work required)	Weekly (May-September)	Annually	% of hazards addressed within 24 hours	100%
Safe	Pool water quality meets Health and Promotions Standards	Water sampling and testing every two hours when open to the public	Daily	Annually	Chlorine residual, total alkalinity, Ph	100%
Reliable	Ice surfaces are in good condition to allow for continuous provision of service	Ice thickness, visual inspections of condition	Daily/ weekly	Weekly	Ice thickness, visual condition	To be confirmed

Service Attribute	Program or Asset Service Objectives Description	Metric	Measurement Frequency	Reporting Frequency	Measurement/ Calculation	Goal (Long Term)
Reliable	Sports fields are in good condition to ensure continuous provision of service	Inspections (Good to Very Good)	Daily (May-October)	Annually	1 to 5 rating	To be confirmed
Reliable	Water park equipment is in good condition to ensure continuous provision of service	Inspections (Good to Very Good)	Daily (June-September)	Annually	1 to 5 rating	To be confirmed
Suitable	Park turf is maintained so that it can be used as intended	Grass cutting based on park type	Weekly	Annually	actual frequency vs target	Parkland and trails (once/week); Sports field three times/week
Suitable	Lighting levels (sports fields) are adequate to meet the levels of use	Inspect to ensure proper operation by class of field and activity	Weekly	Annually	# of candles (using light measurement)	30 ft candle for sports fields

4.4.6 Buildings - Key Performance Metrics

For facilities, roofs and HVAC equipment were identified as significant issues due to deteriorating condition and age. Metrics have been added to document condition ratings on main facility assets, as inspections on more critical assets are already being performed on a regular basis.

Table 32 Buildings – Key Performance Metrics

Service Attribute	Program or Asset Service Objectives Description	Metric	Measurement Frequency	Reporting Frequency	Measurement/ Calculation	Goal (Long Term)
Reliable	Facilities are maintained in good condition to enable reliable / continuous provision of services	Percent of facilities where the Physical Condition is Rated as Fair, Good or Very Good	TBD	Annually	% of facilities in fair, good or very good condition (by replacement value)	To be confirmed
Available	Sufficient facilities are provided to meet needs of community	Gross Square Feet of Office space at Town Hall per FTE	Annually	Annually	Area (sq. ft) per FTE	To be confirmed

4.4.7 Fire Department - Key Performance Metrics

The Fire Department maintains records of inspection frequencies for schools and hospitals. The expenditures on replacing breathing apparatus equipment is also proposed to address the concern that front-line equipment always be in line with current technological advances. In terms of responding to community incidents in local areas, the Fire Department targets approximate four minutes response time during the day and 10 to 12 minutes in the evening.

4.4.8 Police Department - Key Performance Metrics

The Police Department maintains its fleet on time-based and mileage-based inspections and renewal. Response time to the community is typically within minutes.

4.5 External Trends Affecting Levels of Service and Performance

This section describes factors that may affect the future levels of service for the Town's assets. Legislation and Government initiatives will continue to affect the demand for appropriate transportation services, such as the continued emphases on reducing urban sprawl. The technology used to construct, maintain, and renew assets may also change in the future, such as the increased use of permeable pavements and increased construction of High Occupancy Vehicle (HOV) lanes. Climate change is expected to result in more frequent extreme weather events. These weather events will likely increase the rate of asset deterioration, elevating the need for more frequent treatments to maintain the same level of service.

The impact of changes in climate, legislation, and technology were not included in this report because the effect of these changes on levels of service and costs cannot be accurately predicted. Future updates to the AM Plan should consider the effects of these changes as applicable.

4.6 Monitoring

Performance on levels of service should be monitored as determined in the LOS Framework. This monitoring process ensures that performance is regularly evaluated against targets such that progress, improvement areas, and issues regarding lack of funding are identified on a timely basis.

4.7 Level of Service and Cost of Service Relationship

To achieve the objectives of the Town's Vision, the Town provides services at specific levels of availability, reliability, responsiveness, safety, suitability, and sustainability. The Town strives to provide these specific levels of services cost effectively – at the lowest possible cost for both current and future customers. Willingness to pay and availability of finances will ultimately control the ability of the Town to achieve its target levels of service.

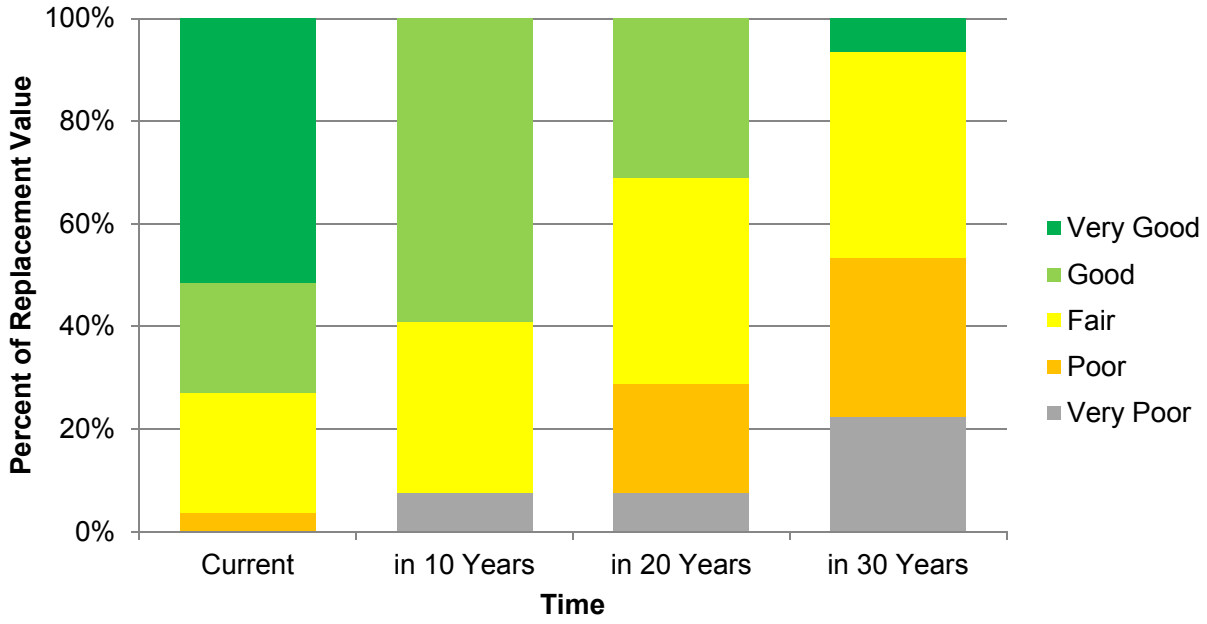
To establish the LOS and Cost of Service (COS) relationship, the Town must understand the current LOS being provided, and determine the full cost to deliver this LOS. Determining the cost to deliver the current LOS will include tracking the following:

- Direct tangible costs (i.e., those costs to the Town that can be directly traced to the specific service) such as program costs and asset lifecycle costs
- Indirect tangible costs (i.e., those costs to the Town that cannot be directly traced to the specific service) such as corporate administration and overhead
- Less tangible community costs such as road user costs and risk of environmental impacts. It is common not to consider these until direct and indirect costs are well understood.

Once the Town understands the full cost to deliver the current LOS, it can determine if current LOS are sustainable over time. For many municipalities, current LOS is not

sustainable with current funding. In Section 6, future funding requirements are determined based on the best information currently available regarding the Maximum Potential Life (MPL) of assets and major expected rehabilitations for the Town on a network level. These life cycle strategies are qualitatively linked to level of service; the 30 year resurfacing and 60 year reconstruction period for roads provides a higher level of service than resurfacing at 40 years and reconstructing at 80 years, assuming that the same preventative maintenance is applied in both strategies. In future improvements to this AM Plan, knowledge of actual condition data, refined deterioration curves, and documented costs for treatments will allow the Town to link level of service and cost of service in a more quantitative way. Ideally, LOS could then be tied to funding by showing estimated physical condition (level of service) at different funding levels. For roads, the required funding is estimated to be, on average, $3.6 million per year (refer to Section 6 for 50-year forecast). Funding has historically been below $2.5 million per year. If funding is limited to approximately $2.5 million per year, roads will, on average, be resurfaced every 45 years and replaced every 90 years (instead of 30 and 60 years, respectively). This rudimentary approximation allows a preliminary analysis on the effect of current funding levels on asset condition, as shown in the following figure:

Figure 26 Roads – Condition over Time with Current Funding



5. Asset Management Strategy

The asset management strategy is the set of planned actions that will enable the assets to provide the desired levels of service in a sustainable way, while managing risk, at the lowest life cycle cost.

Asset lifecycle activities can be categorized into the following main areas:

- **Create or Acquire:** Activities that provide new or donated / gifted assets that increase service potential, performance capability or capacity.
- **Enhance:** Activities that augment or upgrade existing assets to increase service potential, performance capability or capacity.
- **Operate:** The active process of using an asset which may consume resources such as manpower, energy, chemicals, and materials.
- **Maintain:** Activities necessary to retain an asset as near as practicable in its original condition, but excluding refurbishment / rehabilitation or replacement.
- **Refurbish or Rehabilitate:** Activities to sustain the original service potential or substantially extend the life of existing assets by replacing component systems or assemblies without increasing service potential, performance capability or capacity.
- **Replace:** Activities that replace existing assets with assets of equivalent service potential, performance capability or capacity.
- **Dispose:** Activities that permanently removes assets from service.

This section of the AM Plan outlines the preventative maintenance plans and capital projects planned by the Town to rehabilitate and replace assets. The funding for these activities is subject to annual budget approvals.

5.1 Roads and Bridges Life Cycle Strategies

The asset management strategy for roads was developed by identifying a preferred life cycle renewal strategy for surface and base assets. A resurfacing period of 30 years, followed by a full reconstruction at 60 years was determined to most accurately represent on-going Town practices, provided that operations and maintenance treatments such as crack sealing and pothole repairs were also completed during the asset lifecycle.

Based on a lifecycle cost comparison, performing such preventative maintenance to extend pavement life is preferable to a ‘do nothing’ strategy in which the pavement and base have to be replaced at earlier intervals, assumed to be 23 years for surface and 45 years for full road reconstruction. In general, an appropriately timed preventive maintenance treatment postpones the more expensive corrective rehabilitation treatment.

Life cycle costs include all costs and benefits anticipated over the life of the asset expressed in a way that accounts properly for the time value of money. A dollar that is

available now (or spent now) has a higher value than a dollar that will be available or spent in the future.

A discount rate of 2.5% and a term of 100 years were used for the analysis.

Table 33 shows the estimated life cycle cost of the reactive 'do nothing' strategy applied to a 1 km segment (based on unit costs for local roads). Note that the reactive strategy does not necessarily reflect the current practices of the Town. The life cycle costing assumes that no preventive maintenance is conducted, resulting in a need for resurfacing at 23 years, and reconstruction at 45 years to maintain a similar level of service and risk compared to the preventative maintenance strategy that extends the road reconstruction to 60 years. The 100-year net present value of the 'do nothing' strategy is $1.53 million per lane-km (this considers the remaining residual value at 100 years).

Table 33 Life Cycle Cost – Pavement (Do Nothing Strategy)

Discount Rate		2.5%			
Year		**Discount Factor**	**Activity**	**Cost (per km)**	**Discounted Cost**
2016	0	1.0000	**Construction**	$950,000	$950,000
2039	23	0.5667	**Resurfacing**	$300,000	$170,009
2061	45	0.3292	**Reconstruction**	$950,000	$312,716
2084	68	0.1865	**Resurfacing**	$300,000	$55,963
2106	90	0.1084	**Reconstruction**	$950,000	$102,938
2116	100	0.0846	Salvage	-$675,121	-$57,147
				Present Value	**$1,534,478**
				Annuity of PV	**$41,909**

For comparison, Table 34 shows a lower cost life cycle strategy which extends the life of the asset through regular preventive treatments, such as crack sealing earlier on in the lifecycle, and patching prior to the first resurfacing. In this strategy, resurfacing is required every 30 years, and the base life is extended to 60 years. The 100-year net present value of this strategy is $1.30 million per lane-km, representing a 15.0% saving over the 'do nothing' strategy.

Table 34 Life Cycle Cost – Pavement (Preventative Maintenance Strategy)

Discount Rate		2.5%			
Year		**Discount Factor**	**Activity**	**Cost (per km)**	**Discounted Cost**
2016	0	1.0000	**Reconstruction**	$950,000	$950,000
2021	5	0.8839	Crack Seal	$1,750	$1,547
2026	10	0.7812	Crack Seal	$1,750	$1,367
2036	20	0.6103	Patch	$1,200	$732
2046	30	0.4767	Resurfacing	$300,000	$143,023
2051	35	0.4214	Crack Seal	$1,750	$737
2056	40	0.3724	Crack Seal	$1,750	$652
2066	50	0.2909	Patch	$1,200	$349
2076	60	0.2273	Reconstruction	$950,000	$215,919
2081	65	0.2009	Crack Seal	$1,750	$352
2086	70	0.1776	Crack Seal	$1,750	$311
2096	80	0.1387	Patch	$1,200	$166
2111	95	0.0958	Resurfacing	$300,000	$28,731
2116	100	0.0846	Crack Seal	$1,750	$148
2116	100	0.0846	Residual Value (surface)	-$466,667	-$39,502
				Present Value	**$1,304,533**
				Annuity of PV	**$35,629**

The life cycle analysis includes direct costs related to maintenance, rehabilitation, and renewal of pavement. It is assumed that difference in the impacts on environment and safety are minimal between the two alternatives, and such costs are not included in the calculation. Indirect costs, such as those related to a diminished municipality image, are also not considered. The focus of the next AM Plan should be to refine direct costs and timing of treatments in determining the optimal life cycle strategies. These strategies should be developed for different pavement types, and will require tracking of treatments and costs to each asset such that actual life cycle data can be used to determine the optimal strategies over time.

A framework should be developed that triggers certain treatments based on actual condition data. For example, pavements with Structural Adequacy values above 14 may be considered for preventive maintenance treatments, including the following:

- Pavement Rejuvenator: this treatment is applied within the first two years after construction; it improves the durability characteristics of the mix and provides an in-depth seal to reduce permeability.
- Crack Seal: cleaning of the crack or joint, followed by sealing
- Thin Resurface: surface preparation and application of slurry seal, micro-surfacing or thin hot mix overlay
- Patching: filling of holes or pavement cuts

Pavements with Structural Adequacy values between 8 and 14 may be considered for resurfacing, and below a Structural Adequacy value of 8, full reconstruction should be considered. These potential treatment types are general recommendations. Each project at the segment level must consider rehabilitation history, defect type, severity and density prior to making the final treatment selection. Other projects and plans also need to be considered, such as the coordination of water and wastewater pipe replacements with road replacement projects in the same area at the same time.

The Town's preventive maintenance program for road assets is implemented through the Town's operating budget. Activities included in the preventive maintenance program include, but are not limited to the activities listed in the following table:

Table 35 Roads Preventative Maintenance Activities (Operating Budget)

Activity	Objective/Description	Frequency
Pot Hole Patching	Extend life of road	Weekly
Pavement Crack Sealing	Extend life of road	Annually
Spot Road Resurfacing	Extend life of road	As Required
Curb Replacement	To help maintain road structure and channel runoff on roads	As Required
Clean Bridges	To remove debris	Annually (Spring)

Renewal/rehabilitation and replacement projects are funded through the capital budget. For details on capital projects for roads, refer to the Town's Capital Program.

Visual inspections of the Town's bridges and major culverts are completed every two years by a qualified engineer, as required by regulation and in accordance with the Ontario Structure Inspection Manual (OSIM). The inspections determine physical condition, and identify potential safety issues, maintenance and renewal needs, and any requirements for additional testing. The engineer recommends maintenance and repair / rehabilitation needs, including the estimated costs of this work and their relative priorities. The recommendations for "Now" maintenance needs from the inspections are programmed for immediate or completion within the next year when possible.

5.2 Water Network Life Cycle Strategies

The asset management strategy for the water network consists of determining average annual funding requirements based on replacement of assets at an expected useful life (refer to MPL in Table 25). It is assumed that existing PVC 160, cast iron, and ductile iron watermains with a 45 year MPL will be replaced with PVC (75 year MPL). These MPLs were determined in consideration of the risk level the Town is willing to accept. Longer MPLs would result in allowing assets to deteriorate to lower condition ratings, and higher risk to the Town in terms of potential liabilities. Watermain break records are kept to determine immediate rehabilitation and renewal needs for specific segments.

A preventative maintenance program for the drinking water system has been identified in the Town's Drinking Water Quality Management System (DWQMS). This is a legislated program and forms the foundation of the preventative maintenance program for all water assets. These activities are implemented through the Town's operating budget. Activities included in the preventive maintenance program include, but are not limited to, the activities listed in the following table:

Table 36 Water Assets Preventative Maintenance Activities (Operating Budget)

Activity	Objective/Description	Frequency
Hydrant flushing and maintenance	To help maintain water quality and ensure hydrants are functioning properly, and to comply with DWQMS	Flushing and Maintenance - Annually
Leak Detection Program	To help reduce the number of watermain breaks, and to comply with DWQMS	Annually – targeted areas
Reservoir Integrity Inspection	To help ensure compliance with various legislation and with DWQMS	Annually
Reservoir Structural Integrity Inspection	To help ensure compliance with various legislation and with DWQMS	Every 5 years
Pressure Sustaining Valve	Maintenance to ensure proper operation and to comply with DWQMS	Semi-annually
Isolation Valve Exercising	To help minimize downtime during main break repairs and other maintenance activities, and to comply with DWQMS	Annually
Diesel Generator Set Maintenance	To help ensure reliability of water supply, and to comply with DWQMS	Exercise – monthly Preventative Maintenance – Annually
Step Testing at Wells	To help ensure reliability of water supply	Bi-Annually
Directional Flushing	To help maintain water quality, remove accumulation of sediment on pipes, to help comply with drinking water standards	Where Required – Weekly Targeted Areas - Annually

Renewal/rehabilitation and replacement projects are funded through the capital budget. For details on capital projects for water network assets, refer to the Town's Capital Program.

5.3 Wastewater Network Life Cycle Strategies

The asset management strategy for wastewater assets consists of determining average annual funding requirements based on replacement of assets at an expected useful life (refer to MPL in Table 25). CCTV inspections are also completed to determine immediate rehabilitation and renewal needs for specific segments.

A main objective of the preventative maintenance program is to support compliance of effluent quality with the Certificate of Approval issued by the Ministry of the Environment. Other preventative maintenance activities are also completed to maintain conveyance of sewage throughout the wastewater network. Similar to the other asset areas, the preventative maintenance program is implemented through the Town's operating budget. Activities included in the preventive maintenance program include, but are not limited to, the activities listed in the following table:

Table 37 Wastewater Assets Preventative Maintenance Activities (Operating Budget)

Activity	Objective/Description	Frequency
Inspection of all treatment equipment	To ensure proper operation of the treatment system	Daily
Flow Meter Calibration	To help ensure proper operation of the treatment system and compliance with C of A	Annually
Laboratory Equipment Calibration	To ensure analytical results are accurate for compliance with C of A	Annually
Diesel Gen-Set Maintenance	To ensure operability under a full load	Monthly – Exercise Annually - Maintenance
Maintenance of Process Equipment	To help ensure proper operation of the treatment system	Monthly
Maintenance of Boiler	To help ensure proper operation of the treatment system	Annually
Review Amperage Draw of Intake Pumps	To help ensure continuous operation of pumps at expected capacity	Quarterly
Clean Sewage Sampler	The help ensure proper operation of sampling equipment to collect compliance samples	Bi-Monthly
Maintenance of Plant Blowers	To help ensure proper operation of the treatment system	Quarterly
Maintenance of Bioreactor Equipment	To help ensure proper operation of the treatment system	Annually

Activity	Objective/Description	Frequency
Maintenance of Clarifiers	To help ensure proper operation of the treatment system	Annually
Maintenance of Chemical Metering Pumps	To help ensure proper operation of the treatment system	Monthly
Maintenance of Tertiary Treatment Equipment	To help ensure proper operation of the treatment system	Monthly
Maintenance of Effluent Discharge System	To help ensure proper operation of the treatment system	Annually
Digester System Maintenance	To help ensure proper operation of the treatment system	Annually
Manhole Inspections	To help identify improvements required to maintain system integrity	Annually
Inspect SPS	To help identify improvements required to maintain system integrity	Daily
Pit Flushing at SPS	To help ensure proper operation of the sewage pumping station	Monthly
Manhole Repairs	To help ensure proper operation of sewage system and maintain system integrity	Annually
Sewer Lateral Replacements	To help ensure proper operation of sewage system and maintain system integrity	Annually
Sewer Main Flushing	To help ensure proper conveyance of sewage	Targeted – Annually System-Wide – Every 4 Years
CCTV Inspections	Pre-construction inspections to demonstrate existing condition	As Required

Renewal/rehabilitation and replacement projects are funded through the capital budget. For details on capital projects for wastewater assets, refer to the Town's Capital Program.

5.4 Storm Network Life Cycle Strategies

Similar to the wastewater mains, storm sewers are assumed to require replacement after 75 years (refer to MPL in Table 25).

For this AMP, storm water ponds are analyzed at a high level, and assumed to require replacement every 50 years. It is recommended that the storm water pond assets be broken down into greater detail and costs and service lives assigned to this more detailed hierarchy. A typical breakdown would include pretreatment inlet structure, sediment fore bay, storage pool, outlet structure, outlet conveyance, maintenance access, security, and landscaping. Typical maintenance activities include repairing fences, cutting grass and/or

performing sediment clean outs. Fence repair is budgeted at $5000 per year, grass cutting (4 to 5 times per year) at $3500 per year, and sediment clean out $26,650 per year.

5.5 Buildings - Life Cycle Strategies

Buildings are broken down into relatively high level components in CityWide, and these components are assessed reasonable useful lives for their replacement/renewal cycle (refer to MPL in Section 3.1). For example, the structure of each building is expected to receive major rehabilitation or replacement at 75 years.

Other intermediate lifecycle rehabilitations that may be required mid-life have not been included in the analysis. Future revisions of this AMP should incorporate major rehabilitations such as excavation, repairs, reparging, and waterproofing for foundations and localized repairs on roofs and building finishes.

The Town currently performs roof and general condition assessments on facilities on as needed basis to identify and prioritize required repairs.

5.6 Parks & Recreation - Life Cycle Strategies

Parks & Recreation facilities are detailed in the CityWide inventory to various components for the building structure, typically at a more granular level than other buildings, with components identified related to special interiors such as pool and rink equipment. Service lives for replacement vary by component, but generally match the service lives at the higher level breakdown for other facilities described in Section 5.5 and summarized in Section 3.1.

The Parks & Recreation department is also responsible for performing or coordinating general inspections and maintenance on all park assets such as playgrounds, trails, park trees, turf, tennis courts, sports fields, ball diamonds, and park structures.

5.7 Fleet, IT, and Machinery & Equipment - Life Cycle Strategies

In general, fleet, IT, and Machinery & Equipment are time-based assets which are replaced at end of life. Fleet equipment is typically managed through manufacturer standard operations and maintenance. Lifecycles assumed for these assets are listed in Section 3.1.

5.8 Risk-Based Project Prioritization

A Risk Framework allows a systematic process with which to identify high risk assets that can then be prioritized over lower risk assets. Risk is typically evaluated by multiplying the Consequence of Failure of the asset times the Probability of Failure. Consequence of Failure determines the criticality of an asset. An example of a Consequence of Failure Rating System that considers the Triple Bottom Line factors (Social, Environmental, and Economic) is provided in the following table from the International Infrastructure Management Manual (IIMM, 2011):

2011)

Consequence			Impact (Risk)				
TBL Aspect	Description	Weight	1 Insignificant (<$2,000)	2 Minor ($2,000-$20,000)	3 Severe ($20,000-$100,000)	4 Major ($0.2M- $2M)	5 Catastrophic (>$2M)
Social	Safety & Health	5	Negligible injury	Minor injury Medical attention required.	Serious Injury Hospitalisation required.	Loss of life ($0.2M- $2M)	Multiple loss of life or city-wide epidemic (>$2M)
	3rd Party Losses	3	Minimal liability for consequential loss	Liability for consequential loss	Liability for consequential loss -($20,000-$100,000)	Liability for consequential loss	Liability for consequential loss - (>$2M)
	Loss of Service-Extent/ Duration	4	Small number of customers experiencing minor service disruption	Significant service disruption affecting small number of customers	Significant localised disruption over extended period ($20,000-$100,000)	Major localised disruption over extended period ($0.2M- $2M)	Major long term city wide service disruption
	Corporate Image	3	Event only of interest to individuals Nil effect or community concern	Minor community interest Local media report	Public community discussion Broad adverse media coverage	Loss of confidence in Council National publicity. Public agitation for action	Public investigation International coverage. Management changes demanded
Environmental	Environment	5	Negligible impact Reversible within 1 week	Material damage of local importance. Prosecution possible. Impact fully reversible within 3 months	Serious damage of local importance Prosecution probable. Impact fully reversible within 1 yr	Serious damage of national importance Prosecution expected. Impact reversible within 5 yrs	Serious damage of national importance Prosecution. Long term study. Impact not fully reversible
Economic	Business Costs (Total Recovery)	3	Total direct revenue loss & cost to restore service	Total direct revenue loss & cost to restore service	Total direct revenue loss & cost to restore service	Total direct revenue loss & cost to restore service	Total direct revenue loss & cost to restore service

For asset risk, physical mortality (condition) typically determines the Probability of Failure. This rating can be determined by condition rating scores based on actual inspections. In the absence of condition data, probability of failure may be subjectively estimated based on known attributes such as asset age, material, and aggressiveness of the installation environment.

It is recommended that the Town develop a formal Risk Framework. A standardized Probability and Consequence of Failure Rating scale forms the basis of a systematic

process for determining asset risks across departments, and will support the decision making process when prioritizing projects in consideration of funding limitations.

5.9 Monitoring & Updating

The maintenance and renewal strategies should be reviewed and updated regularly, as the Town gains data and experience on different treatments (both time of application and extension of life that is provided by the treatments). It is recommended that the Town develop strategies for asset types at a more detailed level (for example, for local, collector and arterial roads), and refine deterioration curves and determine condition trigger points for different maintenance and rehabilitation treatments.

Deterioration curves are refined through actual condition assessments. Refer to Section 3.4 for recommendations on developing condition ratings for each asset.

6. Financing Strategy

This section presents a financial projection based on the data and assumptions made to support the State of the Infrastructure in Section 3 and maintenance and renewal strategies in Section 5. Historical expenditures are also provided to enable comparison of historical expenditures and future budgets.

6.1 Actual Expenditures by Lifecycle Activity

The following table provides actual historical capital renewal expenditures for the Town. Capital funds for growth related assets and operations and maintenance items that are funded through the Operating budget are not included. It was assumed that SCADA related upgrades in the Capital Program were budgeted for the water network. The values below include $7.0 million for the WPCP upgrade in 2015.

Table 39 Actual Capital Renewal Expenditures ($M)

Service Area	2011	2012	2013	2014	2015	Historical 5 Year Average
Roads	$2.18	$3.12	$1.52	$1.47	$2.20	$2.10
Wastewater	$0.00	$0.35	$0.76	$0.13	$7.68	$1.78
Water	$0.90	$0.40	$0.53	$0.89	$1.23	$0.79
Total	**$3.07**	**$3.87**	**$2.80**	**$2.48**	**$11.10**	**$4.67**

The historical expenditures for roads above do not include expenditures on other road network assets covered in this AM Plan, such as sidewalks, street lights, signals, and growth related assets.

6.2 Financial Projections for Asset Renewal

The following figures illustrate the estimated long term investment needs to sustain the Town's existing roads and bridges, water, and wastewater assets. The estimated amounts assume that assets will be replaced when the asset reaches the end of its Maximum Potential Life (refer to Section 3.3 for useful life of each asset type). It is assumed that existing PVC 160, cast iron, and ductile iron watermains with a 45 year MPL will be replaced with PVC (75 year MPL).

The forecasted amounts do not include the costs of activities related to operating and maintaining the assets throughout the asset life cycle. The forecasted amounts also do not include the costs of new growth assets. The forecast assumes replacement of the asset at end of life, as well as the following major rehabilitations:

- Existing roads require resurfacing at approximately 30 years
- The digester will undergo a major rehabilitation at 40 years, estimated to cost 60% of the digester replacement cost.

- Major rehabilitation of broadband connectivity assets that provides public WIFI ($50,000 every seven years)

Though operations and maintenance activities are not incorporated into the projections, the Maximum Potential Life used assumes that these preventative treatments are performed such that the asset's life is extended until the specified Maximum Potential Life.

Note that the information presented in these figures represent the second renewal financial projections produced by the Town for roads, bridges, water, and wastewater assets, and the first asset renewal financial projections for all other assets. AM Plans are to be updated regularly and future iterations will be produced using improved data and processes to build upon and refine these financial projections.

The following graph represents the funding requirements for a 50-year period. The bars represent the cost of asset replacement needs, in 2016$ dollars. The horizontal line indicates the annual replacement cost, averaged over the 50-year modeling period (2016-2065). The expenditure indicated in 2016 in each graph represents the approximate backlog of capital renewal work.

Figure 27 Future Investment Profile – Road Network, Average Annual Investment $4.51M

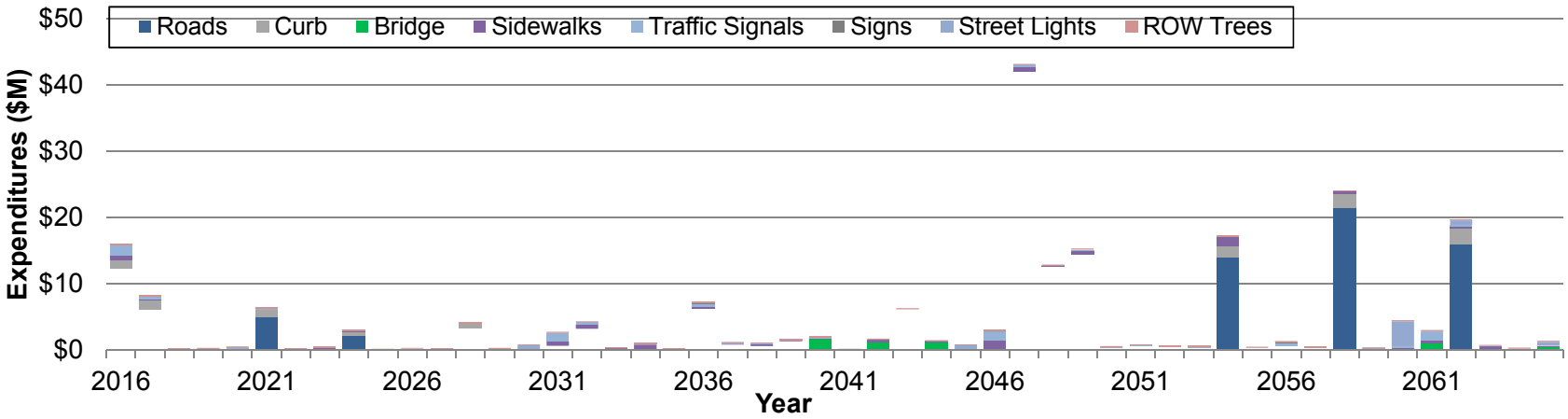


Figure 28 Future Investment Profile – Road Network (Roads/Curbs Only), Average Annual Investment $3.55M

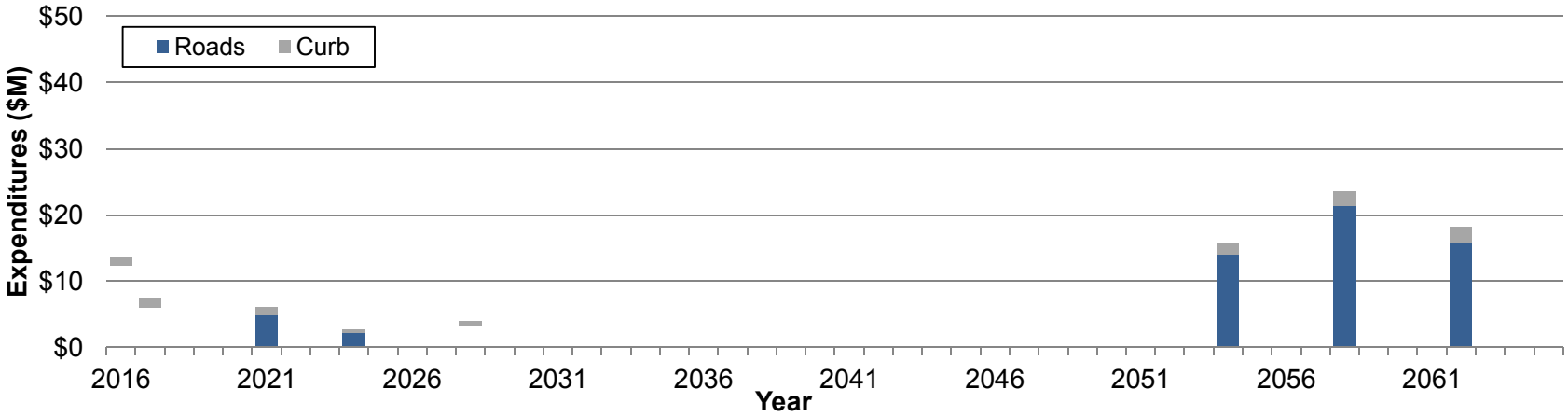


Figure 29 Future Investment Profile – Road Network (Non-Road Assets Only), Average Annual Investment $0.96M

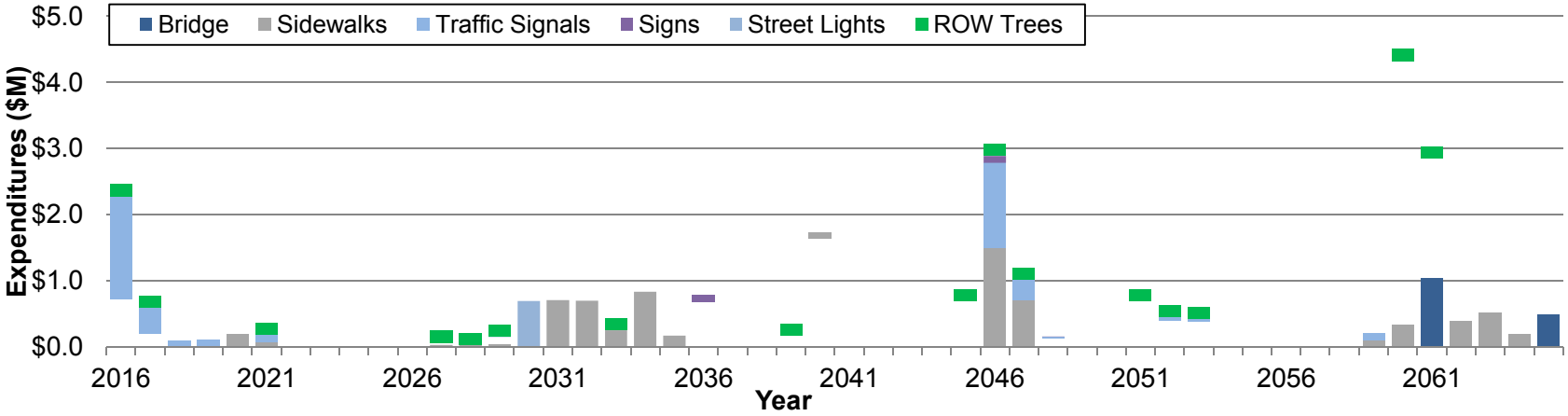


Figure 30 Future Investment Profile - Water Assets, Average Annual Investment $2.00M

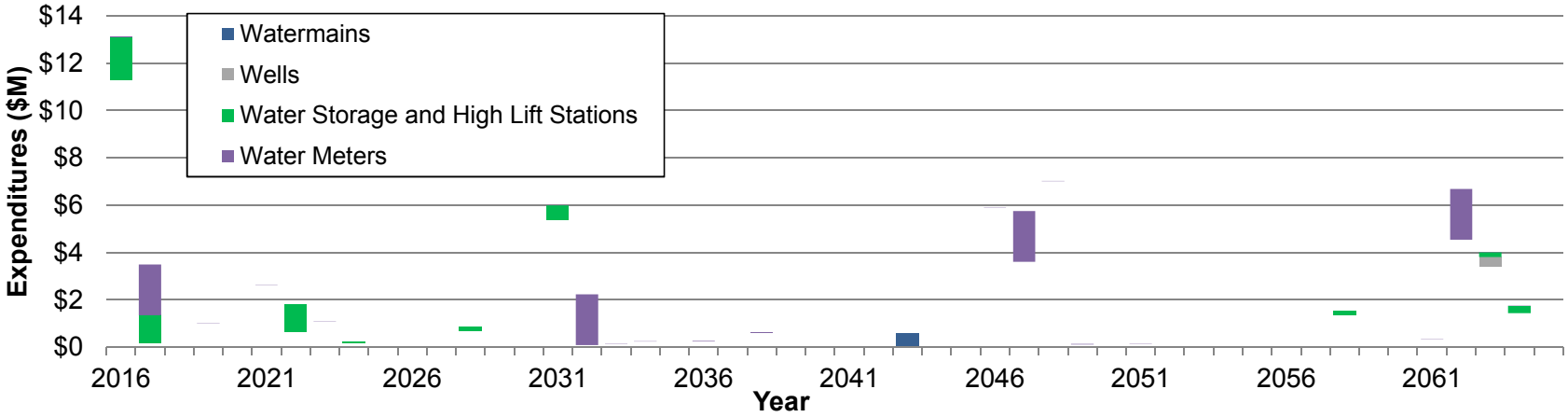


Figure 31 Future Investment Profile - Wastewater Assets, Average Annual Investment $1.83M

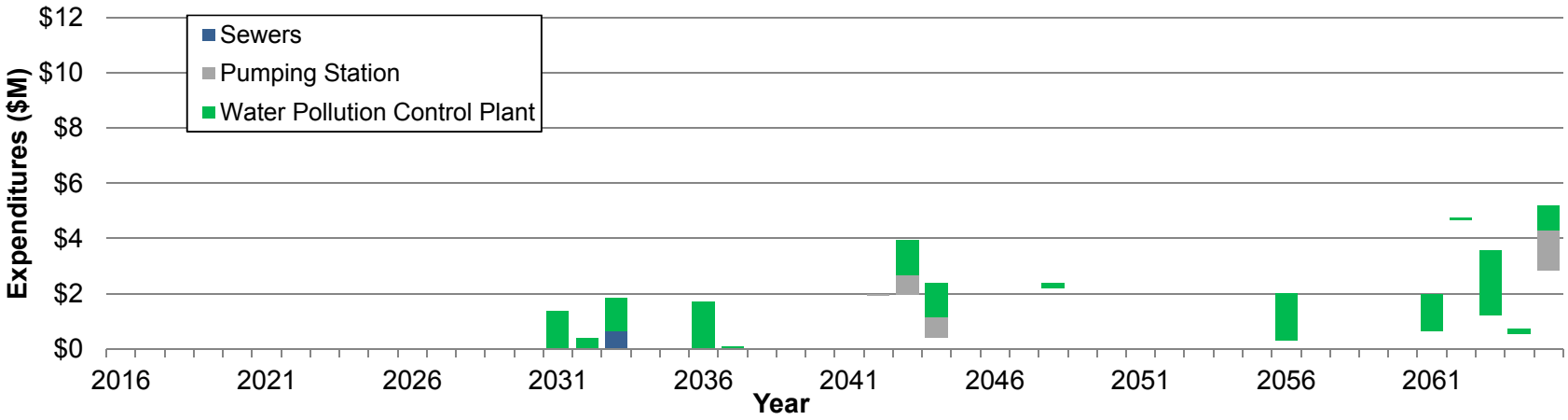


Figure 32 Future Investment Profile – Stormwater Assets, Average Annual Investment $0.79M

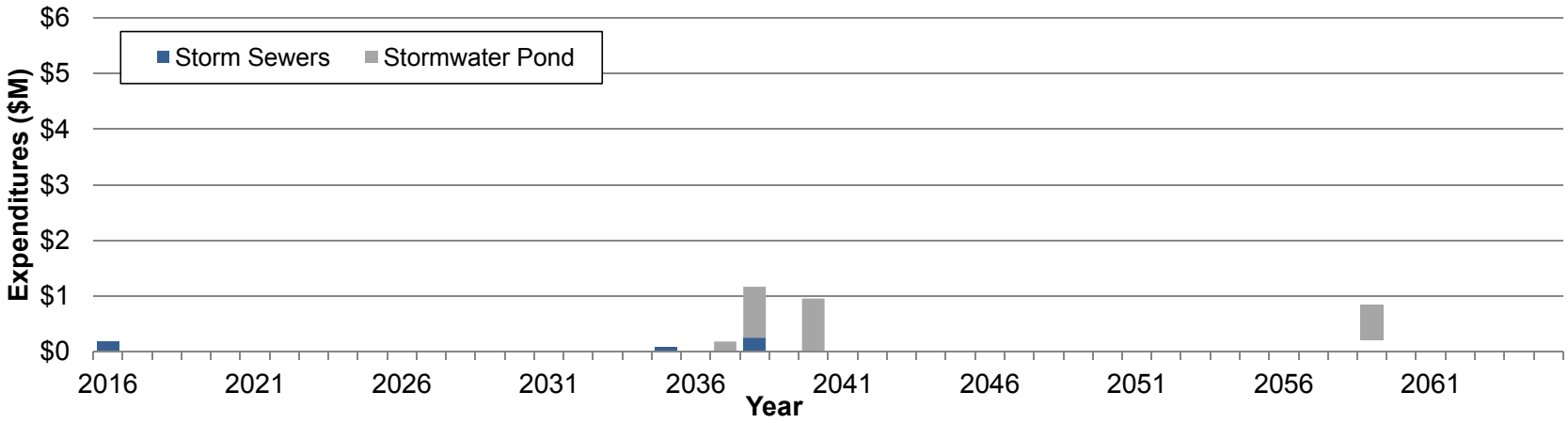


Figure 33 Future Investment Profile – Parks & Recreation Assets, Average Annual Investment $2.06M

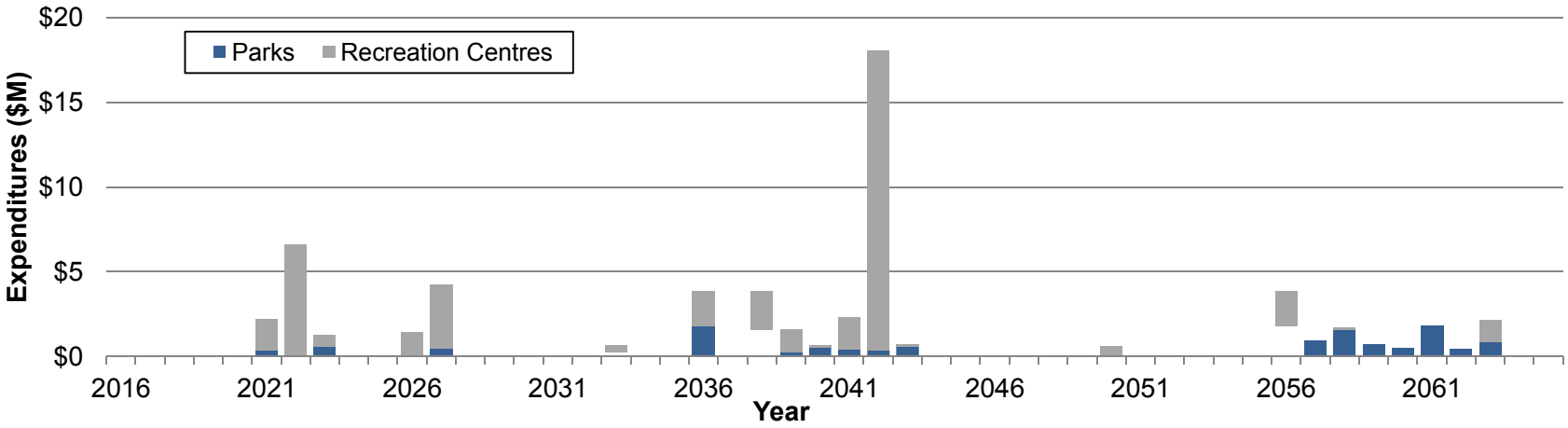


Figure 34 Future Investment Profile – Building Assets, Average Annual Investment $0.66M

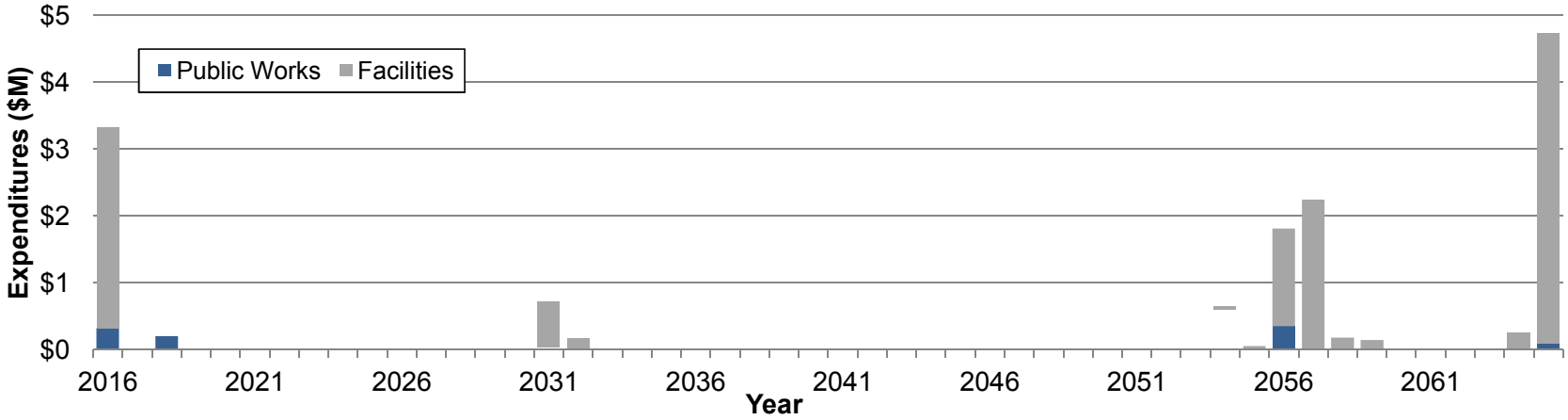


Figure 35 Future Investment Profile – Fleet Assets, Average Annual Investment $0.66M

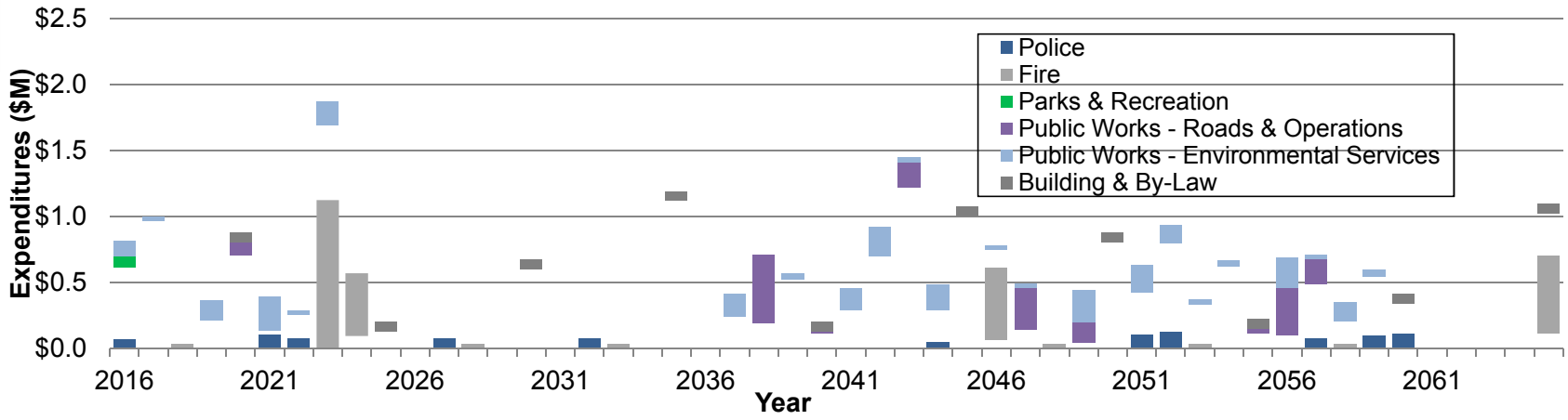


Figure 36 Future Investment Profile – IT Assets, Average Annual Investment $0.45M

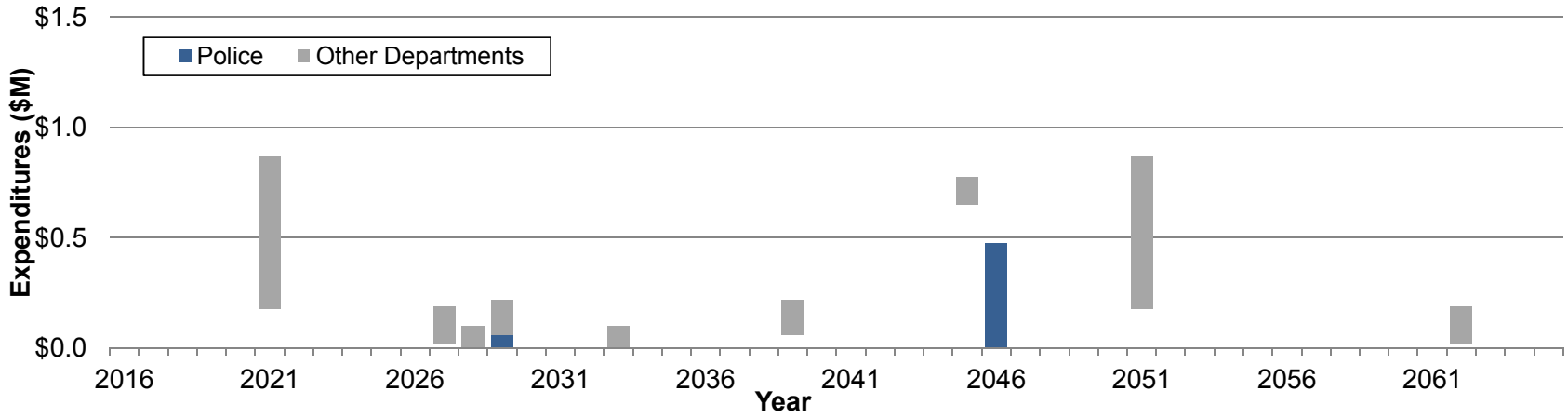
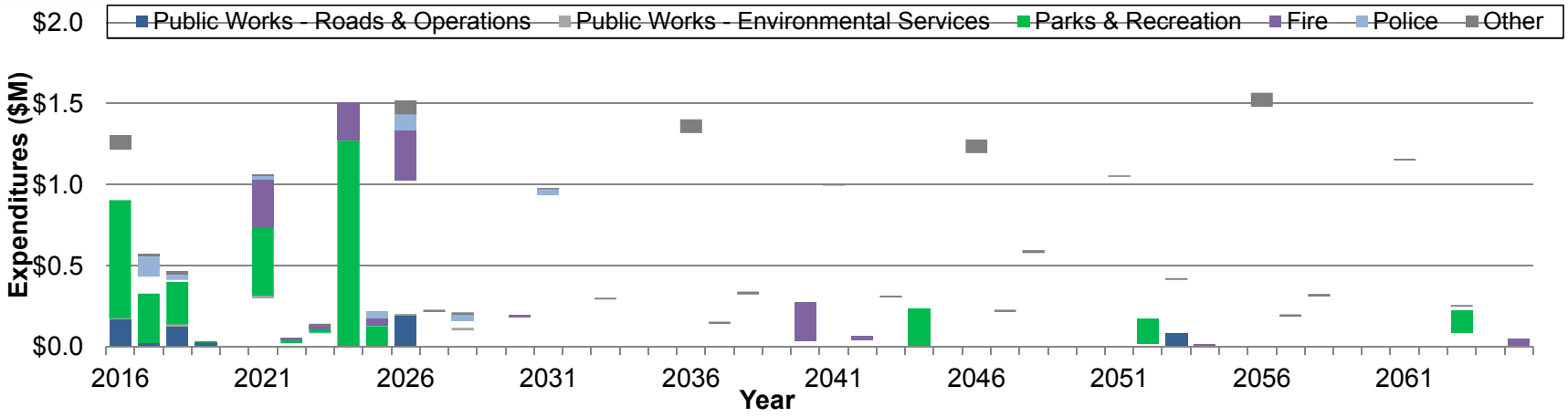


Figure 37 Future Investment Profile – Machinery & Equipment, Average Annual Investment $0.46M



The figures indicate that the Town needs to reinvest a total average of $13.24M in its assets on an annual basis to sustain the existing asset portfolio (replacement and major rehabilitations only). The 10-Year forecast total is $11.86M annually, as summarized in the following table. Appendix A lists specific assets that have been identified as requiring refurbishment or replacement in the next 10 years based on its expected remaining life. For smaller value assets such as IT, Machinery and Equipment, Signs, and water meters, quantities of assets are shown rather than individual assets.

ROW trees and park trees (under Parks) are typically funded through the Operating Budget, and are not included in the totals in Table 40. Replacement of IT, Machinery & Equipment, and fleet assets can be classified as an operating budget item or a capital budget item, depending on the value of the asset and whether the asset is purchased in bulk quantities (typically Capital) or as an individual asset replacement (typically via the Operating budget).

Table 40 Average Annual Future Investment per Service Area (10 and 50-Year Forecast in $M)

Asset		Annual Average 10 Year Forecast	Annual Average 50 Year Forecast
Road Network (excluding ROW Trees)		$3.40	$4.33
Road Network	Roads	$2.54	$3.09
	Curb	$0.44	$0.46
	Bridge	$0.00	$0.14
	Sidewalks	$0.17	$0.31
	Traffic Signals	$0.25	$0.19
	Signs	$0.00	$0.01
	Street Lights	$0.00	$0.13
	ROW Trees (Operating Budget)	$0.18	$0.18
Water Network Total		$2.34	$2.00
Water Network	Watermains	$1.42	$0.99
	Wells	$0.27	$0.46
	Water Storage and High Lift Stations	$0.42	$0.37
	Water Meters	$0.22	$0.18
Wastewater Network Total		$1.83	$1.83
Wastewater Network	Sewers	$0.77	$0.91
	Pumping Station	$0.07	$0.10
	Water Pollution Control Plant	$0.98	$0.82
Storm Network Total		$0.02	$0.79

Asset		Annual Average 10 Year Forecast	Annual Average 50 Year Forecast
Storm Network	Storm Sewers	$0.02	$0.53
	Stormwater Pond	$0.00	$0.26
Parks & Recreation Total		$1.98	$2.06
Parks & Recreation	Parks	$0.76	$0.56
	Facilities	$1.22	$1.51
Buildings Total		$0.59	$0.66
Buildings	Public Works	$0.07	$0.10
	Facilities	$0.53	$0.56
Fleet Total		$0.74	$0.66
Fleet	Police	$0.07	$0.07
	Fire	$0.28	$0.22
	Parks & Recreation	$0.05	$0.05
	Public Works - Roads & Operations	$0.24	$0.21
	Public Works - Environmental Services	$0.08	$0.09
	Building & By-Law	$0.01	$0.01
IT Total		$0.42	$0.45
IT	Police	$0.18	$0.19
	Other Departments	$0.24	$0.26
Machinery & Equipment Total		$0.54	$0.46
Machinery & Equipment	Public Works - Roads & Operations	$0.07	$0.08
	Public Works - Environmental Services	$0.00	$0.00
	Parks & Recreation	$0.32	$0.23
	Fire	$0.10	$0.11
	Police	$0.02	$0.02
	Other	$0.01	$0.01
Total (excluding ROW Trees)		**$11.86**	**$13.24**

6.3 Funding Shortfalls

Funding shortfalls can be determined by comparing the Town's Capital Budget to the future investment needs analysis (see Table 41). The budget for the road network (excluding bridges), water, and wastewater networks were provided by the Town. Other

budgets were determined from the Town's 2017 to 2021 capital budget, excluding Development Charges, which are assumed to be fully related to growth assets.

Table 41 Comparison of Capital Budgets to Future Investment Needs ($M)

Asset		Annual Average 50 Year Forecast	Annual Town Budget	Annual Funding Shortfall
Road Network Total (excluding ROW Trees)		$4.33	$2.91	-$1.42
	Roads	$3.09	$2.75	-$1.45
	Curb	$0.46	incl. with Roads	incl. with Roads
	Bridge	$0.14	$0.16	$0.02
	Sidewalks	$0.31	incl. with Roads	incl. with Roads
	Traffic Signals	$0.19	incl. with Roads	incl. with Roads
	Signs	$0.01	incl. with Roads	incl. with Roads
	Street Lights	$0.13	incl. with Roads	incl. with Roads
	ROW Trees (Operating Budget)	$0.18	$0.18	Operating Budget
Water Network		$2.00	$1.66	-$0.34
Wastewater Network (including WPCP)		$1.83	$0.67	-$1.16
Storm Network		$0.79	$0.05	-$0.74
	Storm Sewers	$0.53	incl. with Roads	-$0.53
	Stormwater Pond	$0.26	$0.05	-$0.21
Parks & Recreation		$2.06	$0.81	-$1.24
	Parks	$0.55	$0.38	-$0.17
	Recreation Centres	$1.51	$0.43	-$1.08
Buildings		$0.66	$0.15	-$0.51
	Public Works	$0.10	$0.00	-$0.10
	Facilities	$0.56	$0.15	-$0.41
Fleet		$0.66	$0.72	$0.07
	Police	$0.07		-$0.07
	Fire	$0.22	$0.14	-$0.08
	Parks & Recreation	$0.05	$0.09	$0.04
	Public Works - Roads & Operations	$0.21	$0.40	$0.19
	Public Works - Environmental Services	$0.09	$0.09	$0.00
	Building & By-Law	$0.01		-$0.01
Total (not including IT, Equipment, ROW Trees)		**$12.33**	**$6.98**	**$5.35**

IT and Machinery & Equipment are not included in the funding shortfall analysis because these assets are partly covered by both operating and capital budgets, and a direct comparison of capital budget items is difficult to determine using available data.

The funding shortfall suggests that current budget levels are insufficient to sustain the asset portfolio in the long-term. For the road network, it is beneficial to understand the forecast on a more granular level. As summarized in Table 41, the 50-year forecast indicates an average annual $1.45 million shortfall when considering roads, including curbs, sidewalks, signs, signals, and lights within the same budget. In the shorter term, there is a higher shortfall in the immediate future (5-year period) of $2.15 million per year. Assuming this shortfall can be addressed with additional funding, the shortfall is only $0.65 million per year over the next 10-year period. This analysis therefore assumes that the backlog and immediate needs for reconstruction and resurfacing are completed in the next five years. If these projects are not completed, the forecast over both the 10 and 50 year period will be higher because roads will continue to deteriorate and likely fall into a state where more expensive rehabilitations are required.

Table 42 Road Network: Comparison of Capital Budgets to Future Investment Needs ($M)

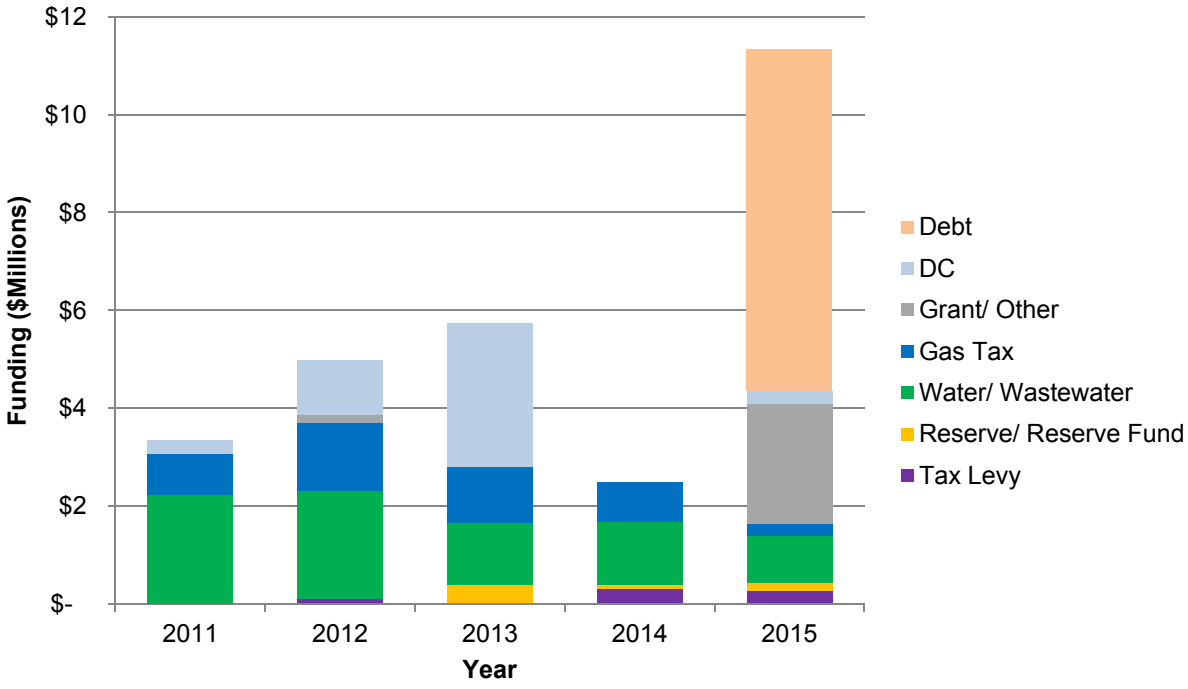
Forecast Period	Average Annual Town Budget	Annual Average Forecast (All Road Assets, except Bridges)	Shortfall
5 Year	$2.75	$4.90	($2.15)
10 Year	$2.75	$3.40	($0.65)
50 Year	$2.75	$4.20	($1.45)

As summarized in the recommendations in Section 2.4, the accuracy of the 10-Year and 50-year projections in this AM Plan should be improved in future revisions of the plan.

6.4 Funding Sources

An analysis of funding sources for roads, water, and wastewater over the past five years indicates that the Town has been relying on non-tax levy sources. The following figures shows the funding sources for the assets covered in this AMP. Note that funding for related assets such as vehicles are not shown. Funding from Development Charges and Debt are for growth assets and are included in the figures to provide a complete overview of funding sources.

Figure 38Historical Funding Sources ($millions)



For the road network (Figure 39), capital projects have predominantly been funded through water and wastewater rates and the federal gas tax, as well as grants in 2015. Tax levy funds have not historically been allocated to capital road work. Therefore, in addition to continuing to pursue grant funding, it is recommended that the Town review allocation of tax levy funds for road projects.

Figure 39Road Network: Historical Funding Sources ($millions)

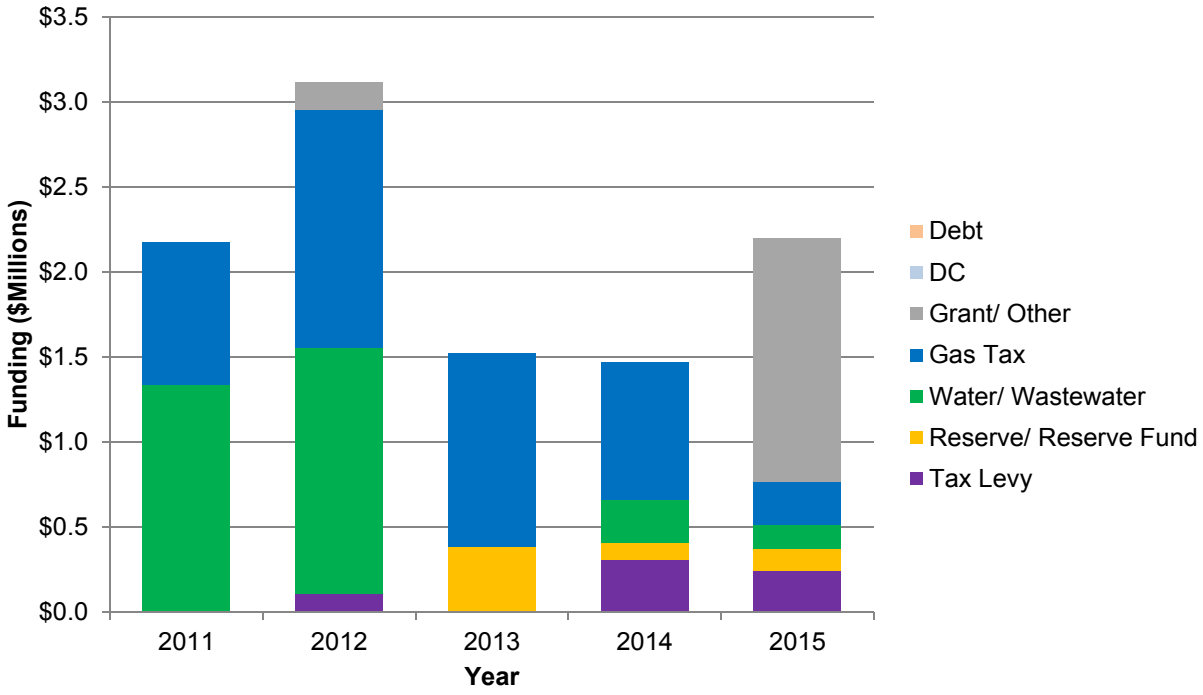


Figure 40Water Network: Historical Funding Sources ($millions)

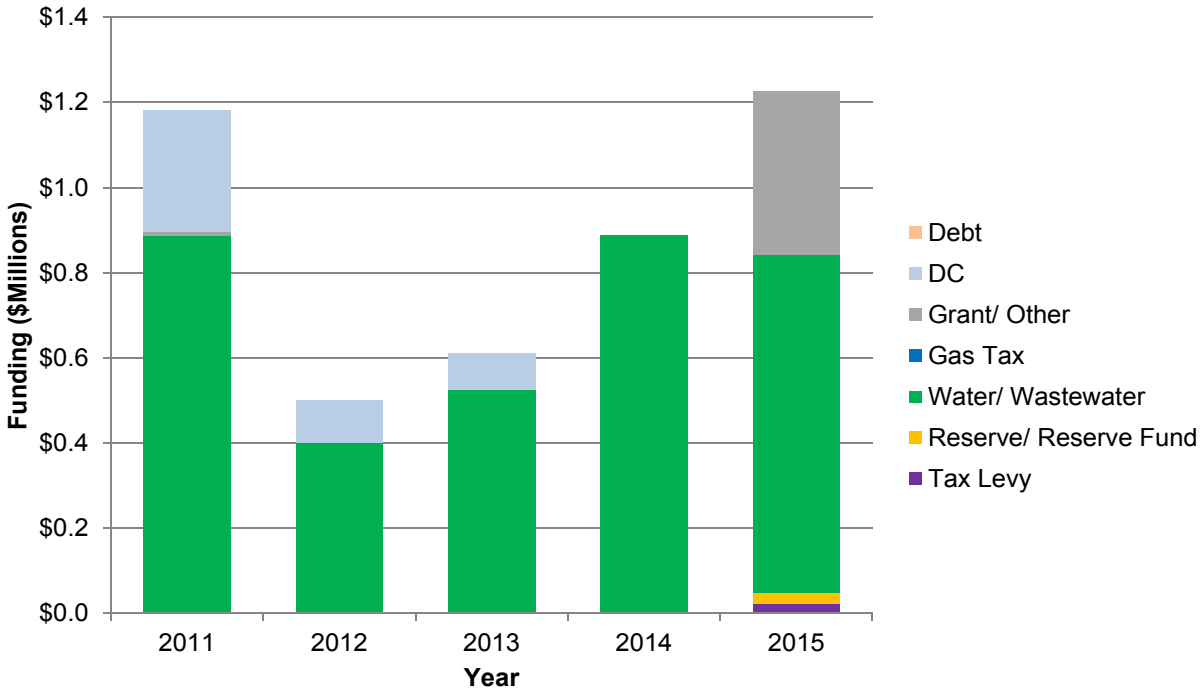
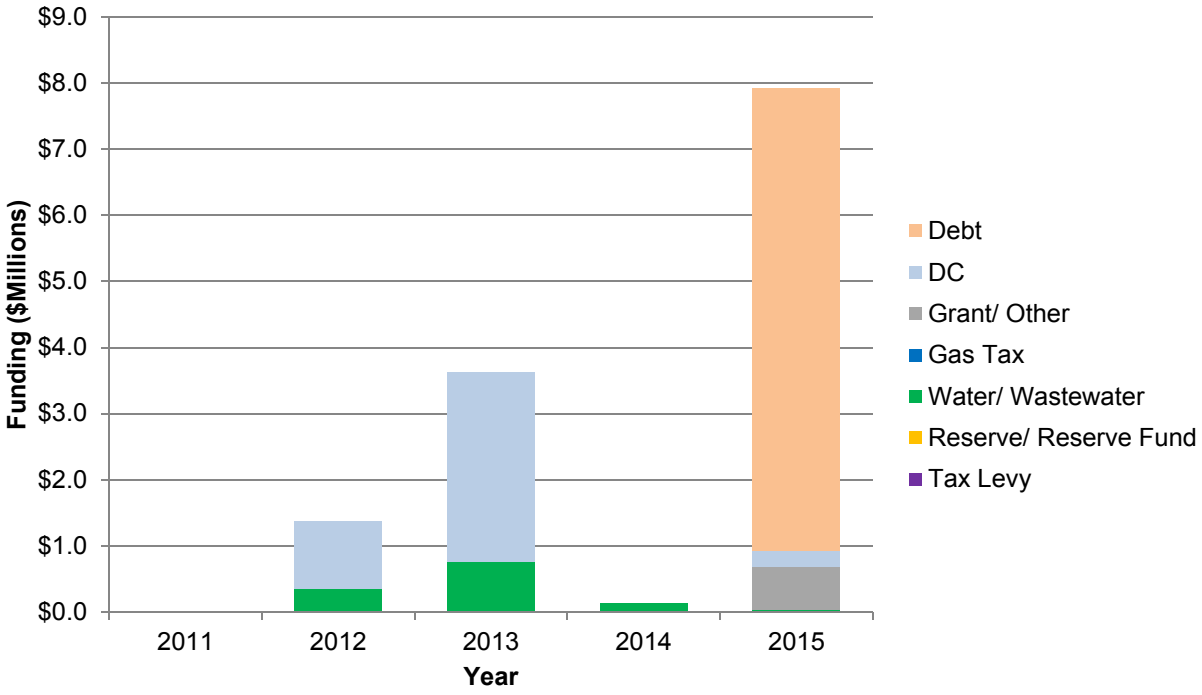


Figure 41Wastewater Network: Historical Funding Sources ($millions)



Water and Wastewater rates have predominantly been the source of funding for water renewal projects. For Wastewater, historical spending has come mainly from Development Charges (DC) and debt, representing a focus on growth assets. The $7 million debt in 2015 was acquired for the WPCP expansion.

Reliance on the alternate sources of funding creates the necessity for the Town to perform strategic, long-term financial planning to ensure adequate reserve levels for future capital requirements. An important part of this process will be continual improvement of the financial projections in this AM Plan with each annual update.

Appendix A

2016 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Road Network	Pedestrian Bridge	-	Pedestrian Bridge at Dragonfly Park	-	-	Replace	1
Public Works	Road Network	Rehab	-	Bridge	-	-	Replace	1
Public Works	Road Network	Road	Laneway	Lane 2-N-3	McCarthy Street	Fead Street	Replace	1
Public Works	Road Network	Road	Laneway	Lane 3-E-4	Second Street	Third Street	Replace	1
Public Works	Road Network	Road	Laneway	Lane 3-E-5	Lane 3-N-2	Second Street	Replace	1
Public Works	Road Network	Road	Laneway	Lane 4-E-1	John Street	Some 60m east of John Street	Replace	1
Public Works	Road Network	Road	Local	BRIGHTON PLACE	Edelwild Drive	0.10km north of Edelwild Drive	Replace	1
Public Works	Road Network	Road	Local	BYTHIA STREET	Townline	Church Street	Replace	1
Public Works	Road Network	Road	Local	BYTHIA STREET	Townline	Princess Street	Replace	1
Public Works	Road Network	Road	Local	BYTHIA STREET	Princess Street	Cul de Sac	Replace	1
Public Works	Road Network	Road	Local	BYTHIA STREET	Bridge	Broadway	Replace	1
Public Works	Road Network	Road	Local	CARLTON DRIVE	Madison Avenue	Lawrence Avenue	Replace	1
Public Works	Road Network	Road	Local	CHURCH STREET	Mill Street	Margaret Street	Replace	1
Public Works	Road Network	Road	Local	CHURCH STREET	Margaret Street	John Street	Replace	1
Public Works	Road Network	Road	Local	ERINDALE AVENUE	Princess Street	Dufferin Street	Replace	1
Public Works	Road Network	Road	Local	FAULKNER STREET	Broadway	Elizabeth Street	Replace	1
Public Works	Road Network	Road	Local	FAULKNER STREET	Elizabeth Street	McCarthy Street	Replace	1
Public Works	Road Network	Road	Local	FIRST AVENUE	First Street	Third Street	Replace	1
Public Works	Road Network	Road	Local	FIRST AVENUE	Third Street	Fourth Street	Replace	1
Public Works	Road Network	Road	Local	GIFFORD STREET	Broadway	0.12km south of Broadway	Replace	1
Public Works	Road Network	Road	Local	GREEN STREET	Chisholm Street	Townline	Replace	1
Public Works	Road Network	Road	Local	LITTLE YORK STREET	John Street	90 m East of Mill Street	Replace	1

2016 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Road Network	Road	Local	MAPLE CRESCENT	Madison Avenue	Madison Avenue	Replace	1
Public Works	Road Network	Road	Local	MARGARET STREET	Townline	Hannah Street	Replace	1
Public Works	Road Network	Road	Local	ONTARIO STREET	Princess Street	Dufferin Street	Replace	1
Public Works	Road Network	Road	Local	PRINCESS ST/ERINDALE AVE	Cardwell Street	#14 Erindale (south of Bend)	Replace	1
Public Works	Road Network	Road	Local	PRINCESS STREET	John Street	Bythia Street	Replace	1
Public Works	Road Network	Road	Local	PRINCESS STREET	Bythia Street	Cardwell Street	Replace	1
Public Works	Road Network	Road	Local	SECOND AVENUE	First Street	Second Street	Replace	1
Public Works	Road Network	Road	Local	SECOND AVENUE	Second Street	Third Street	Replace	1
Public Works	Road Network	Road	Local	SECOND STREET	Lane 3-E-1	Lane 3-E-3	Replace	1
Public Works	Road Network	Road	Local	THIRD AVENUE	First Street	Second Street	Replace	1
Public Works	Road Network	Road	Local	VICTORIA STREET	Bythia Street	Ontario Street	Replace	1
Public Works	Road Network	Road	Local	WELLINGTON ST. SOUTH	Wellington Street	Mill Street	Replace	1
Public Works	Road Network	Road	Local	YORK STREET	Bythia Street	John Street	Replace	1
Public Works	Road Network	Road	Local	ZINA STREET	Faulkner Street	Louisa St	Replace	1
Public Works	Road Network	Road	Major Collector	BLIND LINE	Hansen Boulevard	Town Boundary	Replace	1
Public Works	Road Network	Road	Major Collector	C LINE	Townline	Century Drive	Replace	1
Public Works	Road Network	Sidewalks	Asphalt	BLIND LINE	-	-	Replace	1
Public Works	Road Network	Sidewalks	Asphalt	C LINE	-	-	Replace	1
Public Works	Road Network	Sidewalks	Asphalt	CENTENNIAL ROAD	-	-	Replace	1
Public Works	Road Network	Sidewalks	Asphalt	CENTENNIAL ROAD	-	-	Replace	1
Public Works	Road Network	Sidewalks	Asphalt	GOOSEBERRY STREET	-	-	Replace	1
Public Works	Road Network	Sidewalks	Concrete	FAULKNER STREET	-	-	Replace	1

2016 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Road Network	Sidewalks	Concrete	FAULKNER STREET	-	-	Replace	1
Public Works	Road Network	Sidewalks	Concrete	FIFTH AVENUE	-	-	Replace	1
Public Works	Road Network	Sidewalks	Concrete	SECOND STREET	-	-	Replace	1
Public Works	Road Network	Sidewalks	Concrete	LOUISA STREET	-	-	Replace	1
Public Works	Road Network	Sidewalks	Concrete	YORK STREET	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Control Cabinet and componets	-	-	-	-	18
Public Works	Road Network	Traffic Signals	Heads/Backboards/lights/push buttons	-	-	-	-	18
Public Works	Road Network	Traffic Signals	Poles/Bases/Arms/hangars	Broadway and Dawson/Ada Road	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Sub-surface /electrical/power supply	Blind Line and College	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Sub-surface /electrical/power supply	Broadway and Blind Line	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Sub-surface /electrical/power supply	Broadway and Centre/Clara Street	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Sub-surface /electrical/power supply	Broadway and Dawson/Ada Road	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Sub-surface /electrical/power supply	Broadway and First Street	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Sub-surface /electrical/power supply	Broadway and John Street	-	-	Replace	1

2016 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Road Network	Traffic Signals	Sub-surface /electrical/power supply	Broadway and Mill Street	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Sub-surface /electrical/power supply	Broadway and Second Street	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Sub-surface /electrical/power supply	Broadway and Townline	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Sub-surface /electrical/power supply	C-Line and Alder Street	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Sub-surface /electrical/power supply	First Street and Hansen Blvd.	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Sub-surface /electrical/power supply	Townline and John Street	-	-	Replace	1
Public Works	Road Network	Traffic Signs	-	Fieldgate Dr	-	-	Replace	1
Public Works	Wastewater Network	Sewer Main	-	BYTHIA STREET	Broadway	Hillside Drive	Replace	1
Public Works	Wastewater Network	Sewer Main	-	FAULKNER STREET	Broadway	McCarthy Street	Replace	1
Public Works	Wastewater Network	Sewer Main	-	FIFTH AVENUE	First Street	Second Street	Replace	1
Public Works	Wastewater Network	Sewer Main	-	FIRST AVENUE	First Street	Third Street	Replace	1
Public Works	Wastewater Network	Sewer Main	-	JOHN STREET	Broadway	Townline	Replace	1
Public Works	Wastewater Network	Sewer Main	-	JOHN STREET	Broadway	Townline	Replace	1

2016 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Wastewater Network	Sewer Main	-	JOHN STREET	Broadway	Townline	Replace	1
Public Works	Wastewater Network	Sewer Main	-	LITTLE YORK STREET	John Street	Mill Street	Replace	1
Public Works	Wastewater Network	Sewer Main	-	MILL STREET	Broadway	Armstrong Street	Replace	1
Public Works	Wastewater Network	Sewer Main	-	SECOND AVENUE	First Street	Third Street	Replace	1
Public Works	Wastewater Network	Sewer Main	-	SECOND STREET	North of Third	Fifth Avenue	Replace	1
Public Works	Wastewater Network	Sewer Main	-	TOWNLINE	John Street	Amanda Street	Replace	1
Public Works	Wastewater Network	Sewer Main	-	WELLINGTON STREET	Front Street	Church Street	Replace	1
Public Works	Wastewater Network	Sewer Main	-	AMANDA STREET	Front Street	Townline	Replace	1
Public Works	Wastewater Network	Sewer Main	-	AMANDA STREET	Front Street	Townline	Replace	1
Public Works	Wastewater Network	Sewer Main	-	BROADWAY	Clara Street	Third Street	Replace	1
Public Works	Wastewater Network	Sewer Main	-	BROADWAY	Clara Street	Third Street	Replace	1
Public Works	Wastewater Network	Sewer Main	-	CHURCH STREET	Bythia Street	Mill Street	Replace	1
Public Works	Wastewater Network	Sewer Main	-	CHURCH STREET	Bythia Street	Mill Street	Replace	1
Public Works	Wastewater Network	Sewer Main	-	CHURCH STREET	Bythia Street	Mill Street	Replace	1
Public Works	Wastewater Network	Sewer Main	-	FIRST STREET	Broadway	Fead Street	Replace	1

2016 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Wastewater Network	Sewer Main	-	FIRST STREET	Broadway	Fead Street	Replace	1
Public Works	Wastewater Network	Sewer Main	-	FRONT STREET	Wellington Street	Amanda Street	Replace	1
Public Works	Wastewater Network	Sewer Main	-	PARSONS STREET	Wellington Street	Amanda Street	Replace	1
Public Works	Wastewater Network	Sewer Main	-	YORK STREET	Bythia Street	John Street	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Chemical Storage Building - Alum Pump	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Chemical Storage Building - Sodium Hypo Pumps (2)	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Chemical Storage Building - Sodium Hypochlorite Tank	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Chlorine Contract Chamber - Chlorine Contact	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Detritor - Detritor(inc rake,scraper)	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Digester Complex Structure - Chlorination/Dechlorination Equip	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Digester Complex Structure - Gas Mixing System	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Digester Complex Structure - Recirculation Pump 3	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	New Plant - 1985 - Aeration Piping	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	New Plant - 1985 - Air Grit Blowers (2)	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	New Plant - 1985 - Blowers (2) Cord	-	-	Replace	1

2016 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Wastewater Network	Water Pollution Control Plant	-	New Plant - 1985 - Central Column for 1	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	New Plant - 1985 - Electrical (switches,MCC,etc)	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	New Plant - 1985 - Grit Classifier	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	New Plant - 1985 - Mixers (6)	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	New Plant - 1985 - RAS Pumps (3)	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	New Plant - 1985 - Scum Pump	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	New Plant - 1985 - Sump Pumps (2)	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	New Plant - 1985 - WAS Pump	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Old Plant - Central Column for 3	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Old Plant - Electrical (switches,MCC,etc)	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Old Plant - Flow Meter	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Old Plant - Mixers (4)	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Old Plant - RAS Pump (1)	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Old Plant - Scum Pump	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Old Plant - Sump Pumps	-	-	Replace	1

2016 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Wastewater Network	Water Pollution Control Plant	-	Old Plant - WAS Pump (1)	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Primary Treatment/Shop/Mechanical/Filter - Backwash Pump	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Primary Treatment/Shop/Mechanical/Filter - Backwash Pump	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Primary Treatment/Shop/Mechanical/Filter - Electrical (switches,MCC,etc)	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Primary Treatment/Shop/Mechanical/Filter - Filter No. 1	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Primary Treatment/Shop/Mechanical/Filter - Shop Tools	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Primary Treatment/Shop/Mechanical/Filter - Skimmer Pump	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Primary Treatment/Shop/Mechanical/Filter - Skimmer Pump	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Primary Treatment/Shop/Mechanical/Filter - Washwater Pump	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Sludge Handling - Piston Pump	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Sludge Handling - Sump Pumps (2)	-	-	Replace	1

2016 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Water Network	Water Meter	-	-	-	-	-	5
Public Works	Water Network	Water Storage and High Lift stations	-	Structures (including plumbing)	Northmen Way - Watermain Appurtenances	-	Replace	1
Public Works	Water Network	Watermain	-	BYTHIA STREET	-	-	Replace	1
Public Works	Water Network	Watermain	-	BYTHIA STREET	Townline	Lawerence Avenue	Replace	1
Public Works	Water Network	Watermain	-	BYTHIA STREET	Townline	Princess Street	Replace	1
Public Works	Water Network	Watermain	-	BYTHIA STREET	Broadway	Hillsdale Avenue	Replace	1
Public Works	Water Network	Watermain	-	CEDAR DRIVE	Lawerence Avenue	Townline	Replace	1
Public Works	Water Network	Watermain	-	CEDAR DRIVE	Lawerence Avenue	Townline	Replace	1
Public Works	Water Network	Watermain	-	CENTENNIAL ROAD	Stewart Court	Commerce Road	Replace	1
Public Works	Water Network	Watermain	-	CENTENNIAL ROAD	Commerce Road	Dawson Road	Replace	1
Public Works	Water Network	Watermain	-	CENTRE STREET	Broadway	Hillsdale Avenue	Replace	1
Public Works	Water Network	Watermain	-	CHURCH STREET	Mill Street	Bythia Street	Replace	1
Public Works	Water Network	Watermain	-	FAULKNER STREET	Broadway	Fead Street	Replace	1
Public Works	Water Network	Watermain	-	FAULKNER STREET	Broadway	Fead Street	Replace	1
Public Works	Water Network	Watermain	-	FIFTH AVENUE	First Street	Second Street	Replace	1

2016 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Water Network	Watermain	-	FIRST AVENUE	First Street	Second Street	Replace	1
Public Works	Water Network	Watermain	-	JOHN STREET	Broadway	Townline	Replace	1
Public Works	Water Network	Watermain	-	LITTLE YORK STREET	East Half	Mill Street	Replace	1
Public Works	Water Network	Watermain	-	MILL STREET	Broadway	Armstrong Street	Replace	1
Public Works	Water Network	Watermain	-	SECOND AVENUE	First Street	Second Street	Replace	1
Public Works	Water Network	Watermain	-	SECOND STREET	Broadway	Second	Replace	1
Public Works	Water Network	Watermain	-	THIRD AVENUE	First Street	Second Street	Replace	1
Public Works	Water Network	Watermain	-	THIRD AVENUE	Second Street	Third Street	Replace	1
Public Works	Water Network	Watermain	-	ZINA STREET	Louisa Street	First Street	Replace	1
Public Works	Water Network	Watermain	-	AIKEN CRES	Meyer Drive	Meyer Drive	Replace	1
Public Works	Water Network	Watermain	-	CALEDONIA ROAD	Princess Street	Dufferin Street	Replace	1
Public Works	Water Network	Watermain	-	CARDWELL STREET	Townline	Dufferin Street	Replace	1
Public Works	Water Network	Watermain	-	CARLTON DRIVE	Madison Avenue	Lawerence Avenue	Replace	1
Public Works	Water Network	Watermain	-	COMMERCE ROAD	Centennial Road	Commerce Road	Replace	1
Public Works	Water Network	Watermain	-	DUFFERIN STREET	Erindale Avenue	Ontario Street	Replace	1
Public Works	Water Network	Watermain	-	ERINDALE AVENUE	Princess Street	Dufferin Street	Replace	1

2016 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Water Network	Watermain	-	FIRST STREET	Fead	Broadway	Replace	1
Public Works	Water Network	Watermain	-	HENRY STREET	John Street	Margaret Street	Replace	1
Public Works	Water Network	Watermain	-	HILLSIDE DRIVE	Dawson Road	Bythia Street	Replace	1
Public Works	Water Network	Watermain	-	HILLSIDE DRIVE	Dawson Road	Bythia Street	Replace	1
Public Works	Water Network	Watermain	-	LACKEY DRIVE	Centennial Road	Lackey Drive	Replace	1
Public Works	Water Network	Watermain	-	MADISON AVENUE	Dawson Road	Lawerence Avenue	Replace	1
Public Works	Water Network	Watermain	-	MAPLE CRESCENT	Madison Avenue	Madison Avenue	Replace	1
Public Works	Water Network	Watermain	-	ONTARIO STREET	Princess Street	Dufferin Street	Replace	1
Public Works	Water Network	Watermain	-	PRINCESS STREET	Erindale Avenue	John Street	Replace	1
Public Works	Water Network	Watermain	-	PRINCESS STREET	Erindale Avenue	John Street	Replace	1
Public Works	Water Network	Watermain	-	ROBB BOULEVARD	Centennial Road	C Line	Replace	1
Public Works	Water Network	Watermain	-	YORK STREET	Bythia Street	John Street	Replace	1
Public Works	Water Network	Wells	Electrical Equipment	Well 8A, 8B, 8C - Electrical Equipment	-	-	Replace	1
Public Works	Water Network	Wells	Mechanical Equipment	Well 5/5 A Pumphouse - 41900 m2	-	-	Replace	1
Public Works	Water Network	Wells	Mechanical Equipment	Well 6 - 300 m2	-	-	Replace	1
Public Works	Water Network	Wells	Mechanical Equipment	Well 7 -300 m2	-	-	Replace	1
Public Works	Water Network	Wells	Mechanical Equipment	Well 8A, 8B, 8C	-	-	Replace	1

2016 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Water Network	Wells	Structures (including plumbing)	Well 3 - 3470 m2 - Structures (including plumbing)	-	-	Replace	1
Public Works	Water Network	Wells	Structures (including plumbing)	Well 4 - 14400 m2 - Structures (including plumbing)	-	-	Replace	1
Public Works	Water Network	Wells	Well	Well 2 - 4000 m2 - Well	-	-	Replace	1
Public Works	Water Network	Wells	Well	Well 5/5 A Pumphouse - 41900 m2 - Well	-	-	Replace	1
Public Works	Water Network	Wells	Well	Well 5/5 A Pumphouse - 41900 m2 - Well	-	-	Replace	1
Public Works	Water Network	Wells	Well	Well 6 - 300 m2 - Well	-	-	Replace	1
Public Works	Water Network	Wells	Well	Well 7- 300 m2 - Well	-	-	Replace	1
Public Works	Water Network	Wells	Well	Well 8A, 8B, 8C - Well	-	-	Replace	1
Public Works	Water Network	Wells	Disinfection	Well 6 - 300 m2 - Disinfection	-	-	Replace	1
Public Works	Water Network	Wells	Disinfection	Well 8A, 8B, 8C - Disinfection	-	-	Replace	1
Public Works	Storm Network	Storm Sewer	-	MILL STREET	Broadway	Armstrong Street	Replace	1
Public Works	Storm Network	Storm Sewer	-	MILL STREET	Broadway	Armstrong Street	Replace	1
Public Works	Storm Network	Storm Sewer	-	MILL STREET	Broadway	Armstrong Street	Replace	1
Public Works	Storm Network	Storm Sewer	-	YORK STREET	Bythia Street	John Street	Replace	1
Public Works	Fleet	Vehicle - Light	Environmental Services	2006 Chevrolet Silverado	-	-	Replace	1
Public Works	Fleet	Vehicle - Medium	Environmental Services	2010 Ford F550 4x4	-	-	Replace	1

2016 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Fleet	Vehicle - Medium	Environmental Services	Cab for ID 5185 Ford 550	-	-	Replace	1
Public Works	Machinery & Equipment	-	-	-	-	-	-	2
Parks & Recreation	Land Improvements	Baseball Diamond	-	Idyllwilde Large	-	-	Replace	1
Parks & Recreation	Land Improvements	Baseball Diamond	-	Idyllwilde/Rotary Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Baseball Diamond	-	Idyllwilde/Rotary Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Baseball Diamond	-	Rotary Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Baseball Diamond	-	Rotary Park - South	-	-	Replace	1
Parks & Recreation	Land Improvements	Baseball Diamond	-	Springbrook Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Baseball Diamond	-	Springbrook Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Basketball Court	-	Myr Morrow Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Basketball Court	-	Rebecca Hills Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Bleachers	-	-	-	-	-	4
Parks & Recreation	Land Improvements	Fencing	-	-	-	-	-	17
Parks & Recreation	Land Improvements	General Land Improvements	-	-	-	-	-	6
Parks & Recreation	Land Improvements	Lights	-	Dragonfly Park	-	-	Replace	1

2016 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Parks & Recreation	Land Improvements	Lights	-	Idyllwilde/Rotary Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Lights	-	Idyllwilde/Rotary Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Lights	-	Idyllwilde/Rotary Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Lights	-	Kay Cee Gardens Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Lights	-	Mill Square Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Lights	-	Princess of Wales Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Lights	-	Rebecca Hills Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Parking Lot	-	Harvey Curry Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Parking Lot	-	Idyllwilde/Rotary Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Parking Lot	-	Idyllwilde/Rotary Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Parking Lot	-	Princess of Wales Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Pedestrain Bridge	-	Bridge	-	-	Replace	1
Parks & Recreation	Land Improvements	Playground	-	Kin Family Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Playground	-	Mill Square Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Playground	-	Mono Meadows Park	-	-	Replace	1

2016 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Parks & Recreation	Land Improvements	Playground	-	Village Green Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Soccer Field	-	Idyllwilde/Rotary Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Structure	-	Village Green Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Tennis Courts	-	Kin Family Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Walkway	-	Kay Cee Gardens Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Walkway	-	Mill Square Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Walkway	-	Mother Teresa Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Walkway	-	Rebecca Hills Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Walkway	-	Ridewood Park	-	-	Replace	1
Parks & Recreation	Buildings	-	Building Improvements	Floor Scrubber	-	-	Replace	1
Parks & Recreation	Buildings	-	Electronics	Dasher Board System	-	-	Replace	1
Parks & Recreation	Buildings	-	Equipment - Heavy	Power Supply	-	-	Replace	1
Parks & Recreation	Buildings	-	Equipment - Light	Time Clock Softwarw	-	-	Replace	1
Parks & Recreation	Buildings	-	Equipment - Medium	Scoreboard	-	-	Replace	1
Parks & Recreation	Buildings	-	Fire Protection	Fire alarms upgrades	-	-	Replace	1

2016 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Parks & Recreation	Buildings	-	Materials	Skate Tile Flooring	-	-	Replace	1
Parks & Recreation	Buildings	-	Plumbing	Orginal Plumbing	-	-	Replace	1
Parks & Recreation	Fleet	Trailers	-	Trailtech Flat deck Trailer	-	-	Replace	1
Parks & Recreation	Fleet	Vehicle - Light	-	Trailtech Flat deck Trailer	-	-	Replace	1
Parks & Recreation	Fleet	Vehicle - Medium	-	2006 Ford F-550 Dump Body Truck	-	-	Replace	1
Parks & Recreation	Trailways	Credit Creek	Ashpalt	Woodvale/Bredin Pkwy to Hanson	-	-	Replace	1
Parks & Recreation	Machinery & Equipment	-	-	-	-	-	-	35
Buildings	Facilities	Administration	Building Improvements	Town Hall HVAC Addition	-	-	Replace	1
Buildings	Facilities	Administration	Building Improvements	Town Hall Plumbing Addition	-	-	Replace	1
Buildings	Facilities	Administration	HVAC	Town Hall Original HVAC	-	-	Replace	1
Buildings	Facilities	Administration	Plumbing	Town Hall Original Plumbing	-	-	Replace	1
Buildings	Facilities	Fire	Building Improvements	VEHICLE EXHAUST EXTRACTION SYSTEM	-	-	Replace	1
Buildings	Facilities	Fire	Electrical	Fire Hall Electrical	-	-	Replace	1
Buildings	Facilities	Fire	HVAC	Fire Hall HVAC	-	-	Replace	1
Buildings	Facilities	Fire	Mechanical	(blank)	-	-	Replace	1
Buildings	Facilities	Fire	Plumbing	Fire Hall Plumbing	-	-	Replace	1
Buildings	Facilities	Library	Electrical	Orangeville Public Library Electrical	-	-	Replace	1
Buildings	Facilities	Library	Electrical	Orangeville Public Library Electrical	-	-	Replace	1

2016 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Buildings	Facilities	Library	Plumbing	Orangeville Public Library Plumbing	-	-	Replace	1
Buildings	Facilities	Library	Plumbing	Orangeville Public Library Plumbing	-	-	Replace	1
Buildings	Facilities	Library	Roof	Orangeville Public Library Roof	-	-	Replace	1
Buildings	Facilities	Library	Roof	Orangeville Public Library Roof	-	-	Replace	1
Buildings	Facilities	Library	Structure	Orangeville Public Library Structure	-	-	Replace	1
Buildings	Facilities	Police	Building Improvements	(blank)	-	-	Replace	1
Buildings	Facilities	Police	Structure	Storage Shed, R&M Products LDT	-	-	Replace	1
Buildings	Public Works	Public Works	HVAC	Office Space 1987 2500 sq. ft.	-	-	Replace	1
Buildings	Public Works	Public Works	HVAC	Shop & Garage 9600 sq. ft.	-	-	Replace	1
Buildings	Public Works	Public Works	Parking Lot	168 Broadway Municipal Parking Lot	-	-	Replace	1
Buildings	Public Works	Public Works	Plumbing	Office Space 1987 2500 sq. ft.	-	-	Replace	1
Buildings	Public Works	Public Works	Plumbing	Shop & Garage 9600 sq. ft.	-	-	Replace	1
Buildings	Public Works	Public Works	Roof	Office Space 1987 2500 sq. ft.	-	-	Replace	1
Buildings	Public Works	Public Works	Roof	Shop & Garage 9600 sq. ft.	-	-	Replace	1
Police	Fleet	Vehicle - Light	-	2001 Harly Davidson Motorcycle	-	-	Replace	1
Police	Fleet	Vehicle - Light	-	2007 Chevrolet HHR	-	-	Replace	1
Police	Fleet	Vehicle - Light	-	2011 Chevrolet Impala (Dep. Chief)	-	-	Replace	1

2016 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Fire	Fleet	Vehicle - Heavy	-	1997 Freightliner Tanker	-	-	Replace	1
Fire	Fleet	Vehicle - Light	-	2011 Ford Explorer	-	-	Replace	1
Fire	Machinery & Equipment	-	-	-	-	-	-	38
Committee	Machinery & Equipment	-	-	-	-	-	-	2
ORDC	Machinery & Equipment	-	-	-	-	-	-	2
Communication Equipment	IT	-	-	-	-	-	-	2
Computer Hardware	IT	-	-	-	-	-	-	60
Computer Software	IT	-	-	-	-	-	-	19
Electronics	IT	-	-	-	-	-	-	11

2017 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Road Network	Road	Laneway	Lane 2-E-3	Faulkner Street	First Street	Resurface	1
Public Works	Road Network	Road	Laneway	Lane 3-E-6	Second Street	Third Street	Resurface	1
Public Works	Road Network	Road	Laneway	Lane 6-E-1	Lane 6-N-7	Thompson Road	Resurface	1
Public Works	Road Network	Road	Laneway	Lane 6-E-11	Lane 6-N-2	Rayburn Road	Resurface	1
Public Works	Road Network	Road	Laneway	Lane 6-E-2	Lane 6-N-6	Thompson Road	Resurface	1
Public Works	Road Network	Road	Laneway	Lane 6-E-4	Lane 6-N-5	Thompson Road	Resurface	1
Public Works	Road Network	Road	Laneway	Lane 6-E-6	Lane 6-N-4	Thompson Road	Resurface	1
Public Works	Road Network	Road	Laneway	Lane 6-E-8	Rayburn Road	Thompson Road	Resurface	1
Public Works	Road Network	Road	Laneway	Lane 6-E-9	Lane 6-N-3	Rayburn Road	Resurface	1
Public Works	Road Network	Road	Laneway	Lane 6-N-1	Alder Street	Balsam Street	Resurface	1
Public Works	Road Network	Road	Laneway	Lane 6-N-12	Elderberry Street	Gooseberry Street	Resurface	1
Public Works	Road Network	Road	Laneway	Lane 6-N-2	Alder Street	Balsam Street	Resurface	1
Public Works	Road Network	Road	Laneway	Lane 6-N-3	Balsam Street	Cottonwood Street	Resurface	1
Public Works	Road Network	Road	Laneway	Lane 6-N-4	Cottonwood Street	Dogwood Street	Resurface	1
Public Works	Road Network	Road	Laneway	Lane 6-N-5	Dogwood Street	Elderberry Street	Resurface	1
Public Works	Road Network	Road	Laneway	Lane 6-N-6	Elderberry Street	Fern Street	Resurface	1
Public Works	Road Network	Road	Laneway	Lane 6-N-7	Fern Street	Gooseberry Street	Resurface	1
Public Works	Road Network	Road	Local	AMANDA STREET	Townline	Spring Street	Resurface	1
Public Works	Road Network	Road	Local	AMANDA STREET	10 Amanda Street	Front Street	Resurface	1
Public Works	Road Network	Road	Local	ANDREW AVENUE	Dufferin Street	0.15km south of Dufferin Street	Resurface	1
Public Works	Road Network	Road	Local	AVONMORE CRESCENT	Edelwild Drive	Edelwild Drive	Resurface	1

2017 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Road Network	Road	Local	BREDIN PARKWAY	First Street	Hillsdale Avenue	Resurface	1
Public Works	Road Network	Road	Local	CHURCH STREET	Wellington Street	Sarah Street	Resurface	1
Public Works	Road Network	Road	Local	CRIMSON CRESCENT	Fourth Avenue	0.17km north of Fourth Avenue	Resurface	1
Public Works	Road Network	Road	Local	DUFFERIN STREET	John Street	Ontario Street	Resurface	1
Public Works	Road Network	Road	Local	EDELWILD DRIVE	Century Drive	Rustic Crescent	Resurface	1
Public Works	Road Network	Road	Local	FEAD STREET	First Street	Faulkner Street	Resurface	1
Public Works	Road Network	Road	Local	FIELDGATE DRIVE	Meadow Drive	Passmore Avenue	Resurface	1
Public Works	Road Network	Road	Local	GOLDGATE CRESCENT	Hillsdale Avenue	Hillsdale Avenue	Resurface	1
Public Works	Road Network	Road	Local	GOLDGATE CRESCENT	Daram Court	Hillsdale Avenue	Resurface	1
Public Works	Road Network	Road	Local	HILLSDALE AVENUE	Bredin Parkway	Goldgate Crescent	Resurface	1
Public Works	Road Network	Road	Local	JACKSON COURT	Amelia Street	0.07km west of Amelia Street	Resurface	1
Public Works	Road Network	Road	Local	JOHANNA DRIVE	Parkview Drive	Edelwild Drive	Resurface	1
Public Works	Road Network	Road	Local	KENSINGTON PLACE	College Avenue	College Avenue	Resurface	1
Public Works	Road Network	Road	Local	MADISON AVENUE	Dawson Road	Lawrence Avenue	Resurface	1
Public Works	Road Network	Road	Local	MEADOW DRIVE	St. Andrew Drive	College Avenue	Resurface	1
Public Works	Road Network	Road	Local	PARKVIEW DRIVE	Lawrence Avenue	Century Drive	Resurface	1
Public Works	Road Network	Road	Local	PHEASANT DRIVE	45m south of Meadow Drive	40m north of Passmore Avenue	Resurface	1
Public Works	Road Network	Road	Local	RICHARDSON ROAD	Riddell Road	C Line	Resurface	1
Public Works	Road Network	Road	Local	RUSTIC CRESCENT	Edelwild Drive	Edelwild Drive	Resurface	1
Public Works	Road Network	Road	Local	SECOND STREET	Fourth Avenue	Fifth Avenue	Resurface	1
Public Works	Road Network	Road	Local	SHERBOURNE STREET	Broadway	Second Avenue	Resurface	1

2017 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Road Network	Road	Local	STARVIEW CRESCENT	First Street	Mono Boundary	Resurface	1
Public Works	Road Network	Road	Local	STEVEN STREET	Dufferin Street	0.15km S of Dufferin Street	Resurface	1
Public Works	Road Network	Road	Local	STILL COURT	Passmore Avenue	0.16km S of Passmore Ave.	Resurface	1
Public Works	Road Network	Road	Local	VICTORIA STREET	John Street	Bythia Street	Resurface	1
Public Works	Road Network	Road	Local	WELLINGTON STREET	Townline	Bridge	Resurface	1
Public Works	Road Network	Road	Major Collector	BLIND LINE	Broadway	College Avenue	Resurface	1
Public Works	Road Network	Road	Major Collector	BLIND LINE	College Avenue	Hansen Boulevard	Resurface	1
Public Works	Road Network	Road	Major Collector	BROADWAY	Townline	Wellington Street	Resurface	1
Public Works	Road Network	Road	Major Collector	BROADWAY	Dawson Road	Blind Line	Resurface	1
Public Works	Road Network	Road	Major Collector	BROADWAY	Centre Street	Dawson Road	Resurface	1
Public Works	Road Network	Road	Major Collector	BROADWAY	0.42 km West of Blind Line	C Line	Resurface	1
Public Works	Road Network	Road	Major Collector	BROADWAY	Blind Line	0.42 km West of Blind Line	Resurface	1
Public Works	Road Network	Road	Major Collector	BROADWAY	West of bridge	Townline	Resurface	1
Public Works	Road Network	Road	Major Collector	DAWSON ROAD	Townline	Centre Street	Resurface	1
Public Works	Road Network	Road	Major Collector	DAWSON ROAD	Centre Street	Hillside Drive	Resurface	1
Public Works	Road Network	Road	Major Collector	FIRST STREET	Broadway	First Avenue	Resurface	1
Public Works	Road Network	Road	Major Collector	FIRST STREET	McCarthy Street	Fead Street	Resurface	1
Public Works	Road Network	Road	Major Collector	FIRST STREET	Hansen Boulevard	270 m north of Hansen	Resurface	1
Public Works	Road Network	Road	Major Collector	FIRST STREET	Fourth Avenue	Fifth Avenue	Resurface	1
Public Works	Road Network	Road	Major Collector	FIRST STREET	Highway 10	270 m south of Highway 10	Resurface	1
Public Works	Road Network	Road	Major Collector	FIRST STREET	First Avenue	McCarthy Street	Resurface	1

2017 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Road Network	Road	Major Collector	FIRST STREET	Fead Street	Fourth Avenue	Resurface	1
Public Works	Road Network	Road	Major Collector	FIRST STREET	Fifth Avenue	Hansen Boulevard	Resurface	1
Public Works	Road Network	Road	Major Collector	HANSEN BOULEVARD	Blind Line	Amelia Street	Resurface	1
Public Works	Road Network	Road	Major Collector	TOWNLINE	S.T.P	Orange Street	Resurface	1
Public Works	Road Network	Road	Minor Collector	CENTENNIAL ROAD	Dawson Road	C Line	Resurface	1
Public Works	Road Network	Road	Minor Collector	COLLEGE AVENUE	Blind Line	Fieldgate Drive	Resurface	1
Public Works	Road Network	Road	Minor Collector	COLLEGE AVENUE	Birch Street	Blind Line	Resurface	1
Public Works	Road Network	Road	Minor Collector	FOURTH AVENUE	Second Street	Third Street	Resurface	1
Public Works	Road Network	Road	Minor Collector	JOHN STREET	Townline	Victoria Street	Resurface	1
Public Works	Road Network	Road	Minor Collector	JOHN STREET	Victoria Street	Town Limit	Resurface	1
Public Works	Road Network	Road	Minor Collector	THIRD STREET	Broadway	Second Avenue	Resurface	1
Public Works	Road Network	Road	Minor Collector	THIRD STREET	50 m N. of Third Avenue	Fourth Avenue	Resurface	1
Public Works	Road Network	Sidewalks	Asphalt	HANSEN BOULEVARD	-	-	Replace	1
Public Works	Road Network	Sidewalks	Asphalt	RIDDELL ROAD	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Control Cabinet and componets	-	-	-	-	4
Public Works	Road Network	Traffic Signals	Heads/Backboards/lights/push buttons	-	-	-	-	4
Public Works	Road Network	Traffic Signals	Sub-surface /electrical/power supply	Broadway and C-Line	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Sub-surface /electrical/power supply	C-Line and Centennial	-	-	Replace	1

2017 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Road Network	Traffic Signals	Sub-surface /electrical/power supply	First Street and Rio Can Mall Entrance	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Sub-surface /electrical/power supply	Third Street and Fifth Avenue	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Chemical Storage Building - Alum Pump	-	-	Replace	1
Public Works	Water Network	Water Meter	-	-	-	-	-	236
Public Works	Water Network	Water Storage and High Lift stations	Electrical Equipment	Dudgeon Reservoir & High Lift Station - 16900 m2 - Electrical Equipment		-	Replace	1
Public Works	Water Network	Water Storage and High Lift stations	Mechanical Equipment	Dudgeon Reservoir & High Lift Station - 16900 m2		-	Replace	1
Public Works	Water Network	Water Storage and High Lift stations	Pumping Equipment	Dudgeon Reservoir & High Lift Station - 16900 m2 - Pumping Equipment		-	Replace	1
Public Works	Water Network	Water Storage and High Lift stations	Standby Generator	Dudgeon Reservoir & High Lift Station - 16900 m2 - Standby Generator		-	Replace	1
Public Works	Water Network	Wells	Electrical Equipment	Well 8A, 8B, 8C - Electrical Equipment	-	-	Replace	1
Public Works	Water Network	Wells	Mechanical Equipment	Well 8A, 8B, 8C	-	-	Replace	1
Public Works	Water Network	Wells	Well	Well 8A, 8B, 8C - Well	-	-	Replace	1
Public Works	Fleet	Vehicle - Heavy	-	2003 Freightliner 5 ton dump/plow sander	-	-	Replace	1

2017 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Fleet	Vehicle - Heavy	-	2008 GMC Titan STV Bus	-	-	Replace	1
Public Works	Fleet	Vehicle - Heavy	-	Vacuum Sweeper. replaced 1997 sterling vacuum sweeper	-	-	Replace	1
Public Works	Fleet	Vehicle - Light	Environmental Services	2012 Dodge - RAM 1500	-	-	Replace	1
Public Works	Fleet	Vehicle - Medium	-	2011 Intl 7500 Truck Cab and Chassis.	-	-	Replace	1
Public Works	Fleet	Vehicle - Medium	-	Outfitting for 2010 Ford F550. Int#7-09.	-	-	Replace	1
Public Works	Machinery & Equipment	-	-	-	-	-	-	2
Parks & Recreation	Land Improvements	Baseball Diamond	-	Springbrook Park	-	-	Replace	1
Parks & Recreation	Land Improvements	General Land Improvements	-	-	-	-	-	5
Parks & Recreation	Land Improvements	Parking Lot	-	Fendley Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Soccer Field	-	Alder Recreation Centre	-	-	Replace	1
Parks & Recreation	Land Improvements	Structure	-	Gazebo / Bandstand Structure	-	-	Replace	1
Parks & Recreation	Land Improvements	Walkway	-	Fendley Park	-	-	Replace	1
Parks & Recreation	Buildings	-	Landscaping	Landscaping	-	-	Replace	1
Parks & Recreation	Buildings	-	Parking Lot	Parking lot	-	-	Replace	1

2017 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Parks & Recreation	Fleet	Vehicle - Light	-	2012 GMC Sierra 1500 Crew Cab	-	-	Replace	1
Parks & Recreation	Fleet	Vehicle - Light	-	2012 GMC Sierra 2500 Crew Cab	-	-	Replace	1
Parks & Recreation	Fleet	Vehicle - Medium	-	Focus II Compact Boost L20 Auto Scrubber	-	-	Replace	1
Parks & Recreation	Fleet	Vehicle - Medium	-	Focus II Compact Boost L20 Auto Scrubber	-	-	Replace	1
Parks & Recreation	Machinery & Equipment	-	-	-	-	-	-	9
Buildings	Facilities	Administration	Building Improvements	Town Hall Roof Addition	-	-	Replace	1
Buildings	Facilities	Administration	Roof	Town Hall Original Roof	-	-	Replace	1
Buildings	Facilities	Fire	Roof	Fire Hall Roof	-	-	Replace	1
Buildings	Facilities	Library	Building Improvements	Carpet	-	-	Replace	1
Police	Fleet	Vehicle - Light	-	2011 GMC Terrain (Chief)	-	-	Replace	1
Police	Fleet	Vehicle - Light	-	2013 Ford Explorer	-	-	Replace	1
Police	Fleet	Vehicle - Medium	-	2011 Chev Tahoe K9 Unit	-	-	Replace	1
Police	Machinery & Equipment	-	-	-	-	-	-	3
Fire	Machinery & Equipment	-	-	-	-	-	-	3
Computer Hardware	IT	-	-	-	-	-	-	25
Electronics	IT	-	-	-	-	-	-	4
Library	Machinery & Equipment	-	-	-	-	-	-	1

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Road Network	Traffic Signals	Poles/Bases/Arms/hangars	Broadway and Townline	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Sub-surface /electrical/power supply	Blind Line and Hansen Blvd	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Sub-surface /electrical/power supply	Townline and Dawson/Cardwell Street	-	-	Replace	1
Public Works	Road Network	Traffic Signs	-	-	-	-	-	7
Public Works	Wastewater	Water Pollution Control Plant	-	SCADA Communications	-	-	Replace	1
Public Works	Water Network	Water Meter	-	-	-	-	-	2
Public Works	Fleet	Vehicle - Heavy	-	2009 GMC Bus Titan	-	-	Replace	1
Public Works	Machinery & Equipment	-	-	-	-	-	-	8
Parks & Recreation	Land Improvements	Baseball Diamond	-	Mother Teresa Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Baseball Diamond	-	Rebecca Hills Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Basketball Court	-	Karen Court Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Basketball Court	-	Ryan Meadows Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Fencing	-	-	-	-	-	1
Parks & Recreation	Land Improvements	General Land Improvements	-	-	-	-	-	5
Parks & Recreation	Land Improvements	Landscaping	-	PH 9/10 Park	-	-	Replace	1

2018 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Parks & Recreation	Land Improvements	Lights	-	Idyllwilde/Rotary Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Playground	-	Erindale Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Playground	-	Harvey Curry Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Playground	-	Maywood Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Playground	-	Princess of Wales Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Playground	-	Ryan Meadows Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Playground	-	Tweedy Parkette Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Skate Park	-	Skate Board Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Soccer Field	-	Mother Teresa Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Splash Pad	-	Harvey Curry Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Structure	-	Dragonfly Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Walkway	-	Alexandra Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Walkway	-	PH 9/10 Park	-	-	Replace	1
Parks & Recreation	Buildings	-	Building Improvements	Rubberized Floor Rink "A"	-	-	Replace	1
Parks & Recreation	Fleet	Vehicle - Light	-	2013 GMC Sierra 1500 Crew Cab	-	-	Replace	1

2018 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Parks & Recreation	Fleet	Vehicle - Light	-	2013 GMC Sierra 2500 Crew Cab	-	-	Replace	1
Parks & Recreation	Fleet	Vehicle - Light	-	2013 GMC Sierra 2500; 2 dr	-	-	Replace	1
Parks & Recreation	Machinery & Equipment	-	-	-	-	-	-	5
Buildings	Public Works	Public Works	Electrical	Office Space 1987 2500 sq. ft.	-	-	Replace	1
Buildings	Public Works	Public Works	Electrical	Shop & Garage 9600 sq. ft.	-	-	Replace	1
Police	Machinery & Equipment	-	-	-	-	-	-	1
Fire	Fleet	Vehicle - Light	-	2013 Ford F150 XLT 4WD	-	-	Replace	1
Fire	Machinery & Equipment	-	-	-	-	-	-	2
Computer Hardware	IT	-	-	-	-	-	-	10
Computer Software	IT	-	-	-	-	-	-	1
Electronics	IT	-	-	-	-	-	-	4
Library	Machinery & Equipment	-	-	-	-	-	-	1
Treasury	Machinery & Equipment	-	-	-	-	-	-	1

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Road Network	Traffic Signals	Poles/Bases/Arms/hangars	Broadway and Blind Line	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Poles/Bases/Arms/hangars	Broadway and Centre/Clara Street	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Poles/Bases/Arms/hangars	Broadway and First Street	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Poles/Bases/Arms/hangars	Broadway and John Street	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Poles/Bases/Arms/hangars	Broadway and Mill Street	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Poles/Bases/Arms/hangars	Broadway and Second Street	-	-	Replace	1
Public Works	Wastewater Network	Pumping Station	-	Buena Vista Pumping Station - Electrical Equipment	-	-	Replace	1
Public Works	Wastewater Network	Pumping Station	-	Buena Vista Pumping Station - Mechanical Equipment	-	-	Replace	1
Public Works	Wastewater Network	Pumping Station	-	Buena Vista Pumping Station - Pumping Equipment	-	-	Replace	1
Public Works	Wastewater Network	Pumping Station	-	Buena Vista Pumping Station - Standby Generator	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Chemical Storage Building - Alum Pump	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Digester Complex Structure - Transfer Well	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Old Plant - Blowers (4)	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Primary Treatment/Shop/Mechanical/Filter - Effluent Pump No. 1	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Primary Treatment/Shop/Mechanical/Filter - Effluent Pump No. 2	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Primary Treatment/Shop/Mechanical/Filter - Effluent Pump No. 3	-	-	Replace	1

2019 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Wastewater Network	Water Pollution Control Plant	-	Primary Treatment/Shop/Mechanical/Filter - Effluent Pump No. 4	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Primary Treatment/Shop/Mechanical/Filter - Travelling Bridge	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	WPCP Inlet Works Upgrades 2013 – (escalator/fine screen package)	-	-	Replace	1
Public Works	Water Network	Water Meter	-	-	-	-	-	2
Public Works	Water Network	Wells	Electrical Equipment	Well 10 Pumphouse - Electrical Equipment	-	-	Replace	1
Public Works	Water Network	Wells	Electrical Equipment	Well 9 - 850 m2 - Electrical Equipment	-	-	Replace	1
Public Works	Water Network	Wells	Mechanical Equipment	Well 10 Pumphouse	-	-	Replace	1
Public Works	Water Network	Wells	Mechanical Equipment	Well 9 - 850 m2	-	-	Replace	1
Public Works	Water Network	Wells	Well	Well 10 Pumphouse - Well	-	-	Replace	1
Public Works	Water Network	Wells	Well	Well 9 - 850 m2 - Well	-	-	Replace	1
Public Works	Fleet	Vehicle - Heavy	-	2008 Ford F-550 4x4	-	-	Replace	1
Public Works	Fleet	Vehicle - Heavy	-	2008 Ford F-550 Crew Cab 4x4	-	-	Replace	1
Public Works	Fleet	Vehicle - Heavy	-	Asphalt Recycler	-	-	Replace	1
Public Works	Fleet	Vehicle - Heavy	Environmental Services	2008 Ford 550 1 ton, 4 X 4.	-	-	Replace	1
Public Works	Fleet	Vehicle - Light	Environmental Services	2015 GMC Sierra, White, Crew Cab	-	-	Replace	1
Public Works	Fleet	Vehicle - Medium	Environmental Services	2007 Dodge Dakota 4x4	-	-	Replace	1
Public Works	Machinery & Equipment	-	-	-	-	-	-	2

2019 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Parks & Recreation	Land Improvements	General Land Improvements	-	-	-	-	-	1
Parks & Recreation	Land Improvements	Lights	-	Idyllwilde/Rotary Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Playground	-	Fendley Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Playground	-	Idyllwilde/Rotary Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Playground	-	Idyllwilde/Rotary Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Structure	-	Idyllwilde/Rotary Park	-	-	Replace	1
Parks & Recreation	Machinery & Equipment	-	-	-	-	-	-	3
Buildings	Facilities	Corporate	Buildings	3 Storey Building - 172 Broadway	-	-	Replace	1
Buildings	Facilities	Library	Electrical	Main Branch Security System	-	-	Replace	1
Buildings	Facilities	Public Works	Small Structure	Broadway & Fourth Ave- w/advertising panel	-	-	Replace	1
Police	Fleet	Vehicle - Light	-	2014 Ford Police Interceptor	-	-	Replace	1
Communication Equipment	IT	-	-	-	-	-	-	1
Computer Hardware	IT	-	-	-	-	-	-	2
Computer Software	IT	-	-	-	-	-	-	2
Electronics	IT	-	-	-	-	-	-	4

2020 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Road Network	Sidewalks	Asphalt	BROADWAY	-	-	Replace	1
Public Works	Road Network	Sidewalks	Asphalt	C LINE	-	-	Replace	1
Public Works	Road Network	Sidewalks	Concrete	BYTHIA STREET	-	-	Replace	1
Public Works	Road Network	Sidewalks	Concrete	VICTORIA STREET	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Poles/Bases/Arms/hangars	First Street and Hansen Blvd.	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Poles/Bases/Arms/hangars	Townline and John Street	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Sub-surface /electrical/power supply	First Street and Elizabeth/Second Ave.	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Sub-surface /electrical/power supply	Riddell and Alder	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Sub-surface /electrical/power supply	Riddell and Centennial/Spencer	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Sub-surface /electrical/power supply	Riddell and Montgomery	-	-	Replace	1
Public Works	Wastewater Network	Pumping Station	-	First Street Pumping Station - Structures (including plumbing)	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	New Plant - 1985 - Mixed Liquor Pumps (2)	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	New Plant - 1985 - Piping and Diffusers	-	-	Replace	1
Public Works	Water Network	Water Meter	-	-	-	-	-	4
Public Works	Fleet	Vehicle - Light	-	2015 Kia Rio5 - PW Admin	-	-	Replace	1
Public Works	Fleet	Vehicle - Medium	-	2010 GMC Bus	-	-	Replace	1
Parks & Recreation	Land Improvements	General Land Improvements	-	-	-	-	-	1

2020 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Parks & Recreation	Machinery & Equipment	-	-	-	-	-	-	1
Buildings	Facilities	Fire	Building Improvements	GENERATOR SYSTEM & UPGRADE HYDRO	-	-	Replace	1
Buildings	Facilities	Fire	Building Improvements	GENERATOR SYSTEM & UPGRADE HYDRO	-	-	Replace	1
Buildings	Facilities	Library	Building Improvements	Carpet	-	-	Replace	1
Buildings	Facilities	Library	Building Improvements	Shelving/Book Return Unit	-	-	Replace	1
Buildings	Facilities	Police	Landscaping	Landscaping - Police Station	-	-	Replace	1
Buildings	Facilities	Police	Parking Lot	Police Parking Lot - Asphalt	-	-	Replace	1
Police	Fleet	Vehicle - Light	-	2013 Ford Taurus Interceptor	-	-	Replace	1
Police	Fleet	Vehicle - Light	-	2016 Ford Explorer - Police Interceptor	-	-	Replace	1
Police	Fleet	Vehicle - Light	-	2016 Ford Explorer - Police Interceptor	-	-	Replace	1
Fire	Fleet	Vehicle - Heavy	-	2005 Pierce Pumper Rescue Truck	-	-	Replace	1
Building & By-Law	Fleet	Vehicle - Light	-	2015 Nissan Micra SR - White	-	-	Replace	1
Building & By-Law	Fleet	Vehicle - Light	-	2015 Nissan Micra SR - White	-	-	Replace	1
Building & By-Law	Fleet	Vehicle - Light	-	2015 Nissan Micra SR - White	-	-	Replace	1
Building & By-Law	Fleet	Vehicle - Light	-	2015 Nissan Micra SV - White	-	-	Replace	1
Building & By-Law	Fleet	Vehicle - Light	-	2015 Nissan Micra SV - White	-	-	Replace	1
Communication Equipment	IT	-	-	-	-	-	-	3
Computer Hardware	IT	-	-	-	-	-	-	10
Computer Software	IT	-	-	-	-	-	-	2
Electronics	IT	-	-	-	-	-	-	5

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Road Network	Road	Local	BAILEY DRIVE	Scott Drive	Rebecca Drive	Resurface	1
Public Works	Road Network	Road	Local	BEECHFIELD CRESCENT	Credit Creek Boulevard	Credit Creek Boulevard	Resurface	1
Public Works	Road Network	Road	Local	BYTHIA STREET	Church Street	Bridge	Replace	1
Public Works	Road Network	Road	Local	CALEDONIA ROAD	Princess Street	Dufferin Street	Replace	1
Public Works	Road Network	Road	Local	CREDIT CREEK BOULEVARD	Hansen Boulevard	Amelia Street	Resurface	1
Public Works	Road Network	Road	Local	DUFFERIN STREET	Ontario Street	Erindale Avenue	Replace	1
Public Works	Road Network	Road	Local	EASTVIEW CRESCENT	Blind Line	Blind Line	Resurface	1
Public Works	Road Network	Road	Local	EDENWOOD CRESCENT	Credit Creek Boulevard	Credit Creek Boulevard	Resurface	1
Public Works	Road Network	Road	Local	FAITH DRIVE	Lisa Marie Drive	Rebecca Drive	Resurface	1
Public Works	Road Network	Road	Local	JEFFERS COURT	Elaine Drive	110m east of Fieldgate Drive	Resurface	1
Public Works	Road Network	Road	Local	JULL COURT	Edenwood Crescent	.03km S of Edenwood Cres.	Resurface	1
Public Works	Road Network	Road	Local	KAREN COURT	Burbank Crescent	Burbank Crescent	Resurface	1
Public Works	Road Network	Road	Local	LAWTON COURT	Eastview Crescent	150m east of Eastview Cres.	Resurface	1
Public Works	Road Network	Road	Local	LEWIS DRIVE	Bailey Drive	Faith Drive	Resurface	1

2021 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Road Network	Road	Local	LISA MARIE DRIVE	Scott Drive	Michael Drive	Resurface	1
Public Works	Road Network	Road	Local	LISA MARIE DRIVE	Michael Drive	Rebecca Drive	Resurface	1
Public Works	Road Network	Road	Local	LISA MARIE DRIVE	Michael Drive	Michael Drive	Resurface	1
Public Works	Road Network	Road	Local	MEADOW DRIVE	Fieldgate Drive	St. Andrew Drive	Resurface	1
Public Works	Road Network	Road	Local	MICHAEL DRIVE	Hansen Boulevard	Lisa Marie Drive	Resurface	1
Public Works	Road Network	Road	Local	OAKWOOD CRESCENT	Credit Creek Boulevard	Credit Creek Boulevard	Resurface	1
Public Works	Road Network	Road	Local	PASSMORE AVENUE	Meadow Drive	Pheasant Drive	Resurface	1
Public Works	Road Network	Road	Local	PATTERSON COURT	Eastview Crescent	Some 60m west of Eastview Cres.	Resurface	1
Public Works	Road Network	Road	Local	QUARRY DRIVE	Chisholm Street	Chisholm Street	Resurface	1
Public Works	Road Network	Road	Local	REBECCA DRIVE EAST	Lisa Marie Drive	Bailey Drive	Resurface	1
Public Works	Road Network	Road	Local	REBECCA DRIVE WEST	Bailey Drive	Lisa Marie Drive	Resurface	1
Public Works	Road Network	Road	Local	SCOTT DRIVE	Blind Line	Hansen Boulevard	Resurface	1
Public Works	Road Network	Road	Local	THIRD AVENUE	Second Street	Third Street	Replace	1
Public Works	Road Network	Road	Local	ZINA STREET	First Street	Faulkner Street	Replace	1
Public Works	Road Network	Road	Major Collector	BROADWAY	John Street	Centre Street	Resurface	1

2021 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Road Network	Road	Major Collector	BROADWAY	Wellington Street	John Street	Resurface	1
Public Works	Road Network	Road	Major Collector	BROADWAY	C Line	County Road 16	Resurface	1
Public Works	Road Network	Road	Major Collector	TOWNLINE	Mill Street	John Street	Resurface	1
Public Works	Road Network	Road	Major Collector	TOWNLINE	Alexander Street	Mill Street	Resurface	1
Public Works	Road Network	Road	Major Collector	TOWNLINE	Orange Street	Alexander Street	Resurface	1
Public Works	Road Network	Road	Minor Collector	ALDER STREET	Riddell Road	B Line	Resurface	1
Public Works	Road Network	Road	Minor Collector	ALDER STREET	C Line	Montgomery Boulevard	Resurface	1
Public Works	Road Network	Road	Minor Collector	CENTRE STREET	Dawson Road	C.P.R. Tracks	Resurface	1
Public Works	Road Network	Road	Minor Collector	COLLEGE AVENUE	Fieldgate Drive	Elaine Drive	Resurface	1
Public Works	Road Network	Road	Minor Collector	FIFTH AVENUE	First Street	Second Street	Resurface	1
Public Works	Road Network	Road	Minor Collector	FIFTH AVENUE	Second Street	Third Street	Resurface	1
Public Works	Road Network	Road	Minor Collector	McCANNELL AVENUE	Highway 10	Rolling Hills Drive	Resurface	1
Public Works	Road Network	Road	Minor Collector	ROLLING HILLS DRIVE	Howard Cresent	Highway 9	Resurface	1
Public Works	Road Network	Road	Minor Collector	ROLLING HILLS DRIVE	McCannell Avenue	Howard Crescent	Resurface	1
Public Works	Road Network	Sidewalks	Concrete	THIRD AVENUE	-	-	Replace	1

2021 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Road Network	Traffic Signals	Control Cabinet and componets	-	-	-	-	1
Public Works	Road Network	Traffic Signals	Heads/Backboards/lights/push buttons	-	-	-	-	1
Public Works	Road Network	Traffic Signals	Poles/Bases/Arms/hangars	Blind Line and College	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Poles/Bases/Arms/hangars	C-Line and Alder Street	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Digester Complex Structure - Chlorination/Dechlorination Equip	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	New Plant - 1985 - Electrical (switches,MCC,etc)	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	New Plant - 1985 - Grit Classifier	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	New Plant - 1985 - Mixers (6)	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Old Plant - Electrical (switches,MCC,etc)	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Old Plant - Mixers (4)	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Primary Treatment/Shop/Mechanical/Filter - Electrical (switches,MCC,etc)	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Primary Treatment/Shop/Mechanical/Filter - Shop Tools	-	-	Replace	1
Public Works	Water Network	Water Meter	-	-	-	-	-	6
Public Works	Water Network	Watermain	-	BROADWAY	-	-	Replace	1

2021 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Water Network	Watermain	-	DAWSON ROAD	Townline	Madison Avenue	Replace	1
Public Works	Water Network	Watermain	-	LITTLE YORK STREET	West Half	John Street	Replace	1
Public Works	Water Network	Watermain	-	FELTRE AVENUE	Brenda Boulevard	Oxford Street	Replace	1
Public Works	Water Network	Watermain	-	FOURTH STREET	Broadway	Second Avenue	Replace	1
Public Works	Water Network	Watermain	-	OXFORD STREET	Feltre Avenue	Diane Drive	Replace	1
Public Works	Water Network	Watermain	-	WESTMORLAND AVENUE	Birch Street	Elm Street	Replace	1
Public Works	Water Network	Wells	Electrical Equipment	Well 11 - 270 m2 - Electrical Equipment	-	-	Replace	1
Public Works	Water Network	Wells	Mechanical Equipment	Well 11 - 270 m2	-	-	Replace	1
Public Works	Water Network	Wells	Pumping Equipment	Well 11 - 270 m2 - Pumping Equipment	-	-	Replace	1
Public Works	Water Network	Wells	Structures (including plumbing)	Well 5/5 A Pumphouse - 41900 m2 - Structures (including plumbing)	-	-	Replace	1
Public Works	Water Network	Wells	Well	Well 11 - 270 m2 - Well	-	-	Replace	1
Public Works	Water Network	Wells	Disinfection	Well 11 - 270 m2 - Disinfection	-	-	Replace	1
Public Works	Fleet	Vehicle - Medium	Environmental Services	2011 Dodge Ram Truck. . Light.	-	-	Replace	1
Public Works	Fleet	Vehicle - Medium	Environmental Services	2014 International Terrastar; White	-	-	Replace	1
Public Works	Fleet	Vehicle - Medium	Environmental Services	2014 Mercedes Sprinter 2500 Cargo Van	-	-	Replace	1
Public Works	Fleet	Vehicle - Medium	Environmental Services	2014 Mercedes Sprinter 2500 Cargo Van	-	-	Replace	1
Public Works	Fleet	Vehicle -	Environmental Services	Cab for ID 5185 Ford 550	-	-	Replace	1

2021 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
		Medium						
Public Works	Machinery & Equipment	-	-	-	-	-	-	10
Parks & Recreation	Land Improvements	General Land Improvements	-	-	-	-	-	2
Parks & Recreation	Land Improvements	Playground	-	Brown's Farm Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Playground	-	Cedarstone Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Playground	-	PH 9/10 Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Playground	-	Walsh Crescent Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Soccer Field	-	Alder Park	-	-	Replace	1
Parks & Recreation	Buildings	-	Building Improvements	Floor Scrubber	-	-	Replace	1
Parks & Recreation	Buildings	-	Electronics	Dasher Board System	-	-	Replace	1
Parks & Recreation	Buildings	-	Equipment - Light	Time Clock Softwarw	-	-	Replace	1
Parks & Recreation	Buildings	-	Fire Protection	Fire alarms upgrades	-	-	Replace	1
Parks & Recreation	Buildings	-	Mechanical	New elevator.	-	-	Replace	1
Parks & Recreation	Buildings	-	Mechanical	New wheel chair lift.	-	-	Replace	1
Parks & Recreation	Buildings	-	Roof	Arena A & B Roof Repairs	-	-	Replace	1

2021 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Parks & Recreation	Machinery & Equipment	-	-	-	-	-	-	16
Buildings	Facilities	Fire	Building Improvements	APPARTUS FLOOR AND DRAIN UPGRADE	-	-	Replace	1
Buildings	Facilities	Fire	Building Improvements	APPARTUS FLOOR AND DRAIN UPGRADE	-	-	Replace	1
Buildings	Facilities	Fire	Building Improvements	APPARTUS FLOOR AND DRAIN UPGRADE	-	-	Replace	1
Buildings	Facilities	Police	Building Improvements	(blank)	-	-	Replace	1
Buildings	Facilities	Police	Structure	Storage Shed, R&M Products LDT	-	-	Replace	1
Police	Fleet	Vehicle - Light	-	2001 Harly Davidson Motorcycle	-	-	Replace	1
Police	Fleet	Vehicle - Light	-	2007 Chevrolet HHR	-	-	Replace	1
Police	Fleet	Vehicle - Light	-	2011 Chevrolet Impala (Dep. Chief)	-	-	Replace	1
Police	Fleet	Vehicle - Medium	-	2011 Ford Econoline E350	-	-	Replace	1
Police	Machinery & Equipment	-	-	-	-	-	-	1
Fire	Fleet	Vehicle - Light	-	2011 Ford Explorer	-	-	Replace	1
Fire	Machinery & Equipment	-	-	-	-	-	-	32
Committee	Machinery & Equipment	-	-	-	-	-	-	2
Communication Equipment	IT	-	-	-	-	-	-	2
Computer Hardware	IT	-	-	-	-	-	-	60
Computer Software	IT	-	-	-	-	-	-	19
Electronics	IT	-	-	-	-	-	-	11

2022 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Road Network	Traffic Signals	Poles/Bases/Arms/hangars	First Street and Rio Can Mall Entrance	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Poles/Bases/Arms/hangars	Third Street and Fifth Avenue	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	New Plant - 1985 - Flow Meter	-	-	Replace	1
Public Works	Water Network	Water Storage and High Lift stations	Electrical Equipment	South Sector Reservoir & High Lift Station - 5600 m2 - Connecting Piping		-	Replace	1
Public Works	Water Network	Water Storage and High Lift stations	Mechanical Equipment	South Park Drive - Watermain Appurtenances		-	Replace	1
Public Works	Water Network	Water Storage and High Lift stations	Pumping Equipment	South Sector Reservoir & High Lift Station - 5600 m2 - Electrical Equipment		-	Replace	1
Public Works	Water Network	Water Storage and High Lift stations	Standby Generator	South Sector Reservoir & High Lift Station - 5600 m2 - Pumping Equipment		-	Replace	1
Public Works	Water Network	Watermain	-	BROADWAY HEIGHTS	-	-	Replace	1
Public Works	Water Network	Watermain	-	RUSTIC CRESCENT	Edelwild Drive	Edelwild Drive	Replace	1
Public Works	Water Network	Wells	Standby Generator	Well 10 Pumphouse - Standby Generator	-	-	Replace	1
Public Works	Fleet	Trailers	-	Load Trail - Hyydraulic tilt deck trailer.	-	-	Replace	1
Public Works	Fleet	Vehicle - Light	-	Load Trail - Hyydraulic tilt deck trailer.	-	-	Replace	1
Public Works	Fleet	Vehicle - Light	Environmental Services	2012 Dodge - RAM 1500	-	-	Replace	1
Public Works	Fleet	Vehicle - Medium	-	2015 GMC Sierra 1500 Truck	-	-	Replace	1
Public Works	Fleet	Vehicle - Medium	-	2015 GMC Sierra 2500HD, white	-	-	Replace	1
Public Works	Machinery & Equipment	-	-	-	-	-	-	2
Parks & Recreation	Buildings	-	HVAC	Boiler	-	-	Replace	1
Parks & Recreation	Buildings	-	HVAC	Heater	-	-	Replace	1

2022 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Parks & Recreation	Buildings	-	HVAC	HVAC	-	-	Replace	1
Parks & Recreation	Buildings	-	HVAC	HVAC	-	-	Replace	1
Parks & Recreation	Buildings	-	Plumbing	Plumbing	-	-	Replace	1
Parks & Recreation	Buildings	-	Roof	Roof	-	-	Replace	1
Parks & Recreation	Fleet	Trailers	-	2003 Triton Aluminum 12' Trailer	-	-	Replace	1
Parks & Recreation	Fleet	Vehicle - Light	-	2003 Triton Aluminum 12' Trailer	-	-	Replace	1
Parks & Recreation	Fleet	Vehicle - Light	-	2012 GMC Sierra 1500 Crew Cab	-	-	Replace	1
Parks & Recreation	Fleet	Vehicle - Light	-	2012 GMC Sierra 2500 Crew Cab	-	-	Replace	1
Parks & Recreation	Machinery & Equipment	-	-	-	-	-	-	3
Buildings	Facilities	Building & By-Law	HVAC	HVAC	-	-	Replace	1
Buildings	Facilities	Building & By-Law	Plumbing	Plumbing	-	-	Replace	1
Buildings	Facilities	Building & By-Law	Roof	Roof	-	-	Replace	1
Buildings	Facilities	Public Works	Small Structure	Broadway & Centre St- w/advertising panel	-	-	Replace	1
Buildings	Facilities	Public Works	Small Structure	Broadway & John St- w/advertising panel	-	-	Replace	1
Buildings	Facilities	Public Works	Small Structure	First St & Hansen Blvd -w/advertising panel	-	-	Replace	1
Buildings	Facilities	Public Works	Small Structure	GO Parking Lot n- no advertising panel	-	-	Replace	1
Police	Fleet	Vehicle - Light	-	2011 GMC Terrain (Chief)	-	-	Replace	1
Police	Fleet	Vehicle - Light	-	2013 Ford Explorer	-	-	Replace	1
Fire	Machinery & Equipment	-	-	-	-	-	-	1
Computer Hardware	IT	-	-	-	-	-	-	25
Electronics	IT	-	-	-	-	-	-	4

2023 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Road Network	Sidewalks	Asphalt	AMELIA STREET	-	-	Replace	1
Public Works	Road Network	Sidewalks	Concrete	CENTRE STREET	-	-	Replace	1
Public Works	Road Network	Sidewalks	Concrete	ZINA STREET	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Poles/Bases/Arms/hangars	Broadway and C-Line	-	-	Replace	1
Public Works	Road Network	Traffic Signals	Poles/Bases/Arms/hangars	C-Line and Centennial	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Chemical Storage Building - Alum Tank	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Digester Complex Structure - Flow Meters	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Digester Complex Structure - Odour Control Unit	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Primary Treatment/Shop/Mechanical/Filter - Filter No. 2	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Primary Treatment/Shop/Mechanical/Filter - Hot Water Pumps (2)	-	-	Replace	1
Public Works	Water Network	Water Meter	-	-	-	-	-	2
Public Works	Water Network	Watermain	-	EDELWILD DRIVE	Century Drive	Parkview Drive	Replace	1
Public Works	Water Network	Watermain	-	ELM AVENUE	Westmoreland Avenue	Birch Street	Replace	1
Public Works	Water Network	Watermain	-	GREENLAW STREET	Blind Line	Westmoreland Avenue	Replace	1
Public Works	Water Network	Watermain	-	PARK LANE	Cedar Drive	Park Lane	Replace	1
Public Works	Fleet	Trailers	-	2013 Canada Trailers: 82"x14'; Black	-	-	Replace	1

2023 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Fleet	Vehicle - Heavy	-	2012 Ford - Super Duty. 2 Ton.#1FDUF5HTDCEC28384.	-	-	Replace	1
Public Works	Fleet	Vehicle - Heavy	-	2013 Ford E-550 Bus	-	-	Replace	1
Public Works	Fleet	Vehicle - Heavy	-	2013 International - 7500. 5 Ton truck. Heavy.	-	-	Replace	1
Public Works	Fleet	Vehicle - Medium	Environmental Services	2010 Ford F550 4x4	-	-	Replace	1
Public Works	Fleet	Vehicle - Medium	Environmental Services	2014 GMC Savana Cargo Van; White	-	-	Replace	1
Public Works	Fleet	Vehicle - Medium	Environmental Services	2016 GMC Sierra 2500	-	-	Replace	1
Public Works	Fleet	Vehicle - Medium	Environmental Services	2016 GMC Sierra 2500HD	-	-	Replace	1
Public Works	Machinery & Equipment	-	-	-	-	-	-	4
Parks & Recreation	Land Improvements	Fencing	-	-	-	-	-	1
Parks & Recreation	Land Improvements	General Land Improvements	-	-	-	-	-	1
Parks & Recreation	Land Improvements	Pedestrain Bridge	-	Bridge	-	-	Replace	1
Parks & Recreation	Land Improvements	Playground	-	PH 9/10 Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Skate Park	-	Idyllwilde/Rotary Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Structure	-	Kay Cee Gardens Park	-	-	Replace	1
Parks & Recreation	Buildings	-	Parking Lot	Parking lot	-	-	Replace	1
Parks & Recreation	Fleet	Vehicle - Light	-	2013 GMC Sierra 1500 Crew Cab	-	-	Replace	1

2023 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Parks & Recreation	Fleet	Vehicle - Light	-	2013 GMC Sierra 2500 Crew Cab	-	-	Replace	1
Parks & Recreation	Fleet	Vehicle - Light	-	2013 GMC Sierra 2500; 2 dr	-	-	Replace	1
Parks & Recreation	Fleet	Vehicle - Medium	-	2006 Ford F-550 Dump Body Truck	-	-	Replace	1
Parks & Recreation	Trailways	Mill Creek	Ashpalt	Alder St. RC area	-	-	Replace	1
Parks & Recreation	Trailways	Mill Creek	Ashpalt	Underpass to Colbourne Cres.	-	-	Replace	1
Parks & Recreation	Machinery & Equipment	-	-	-	-	-	-	1
Buildings	Facilities	Administration	Building Improvements	Town Hall Electrical Addition	-	-	Replace	1
Buildings	Facilities	Administration	Electrical	Townd Hall Original Electrical	-	-	Replace	1
Buildings	Public Works	Public Works	Landscaping	Landscaping	-	-	Replace	1
Buildings	Public Works	Public Works	Parking Lot	82-90 Broadway Asphalt Parking Lot	-	-	Replace	1
Fire	Fleet	Vehicle - Heavy	-	2002 Pierce Aerial Ladder Truck	-	-	Replace	1
Fire	Fleet	Vehicle - Light	-	2013 Ford F150 XLT 4WD	-	-	Replace	1
Fire	Machinery & Equipment	-	-	-	-	-	-	3
Treasury	Machinery & Equipment	-	-	-	-	-	-	1
Computer Hardware	IT	-	-	-	-	-	-	10
Computer Software	IT	-	-	-	-	-	-	1
Electronics	IT	-	-	-	-	-	-	4

2024 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Road Network	Road	Laneway	Lane 2-E-1	Clara Street	Louisa Street	Resurface	1
Public Works	Road Network	Road	Laneway	Lane 3-E-2	Second Street	Third Street	Resurface	1
Public Works	Road Network	Road	Laneway	Lane 3-N-2	Second Avenue	Third Avenue	Resurface	1
Public Works	Road Network	Road	Local	DONNA CRESCENT	Brenda Boulevard	40m north of Brenda Blvd.	Resurface	1
Public Works	Road Network	Road	Local	EDELWILD DRIVE	Rustic Crescent	Parkview Drive	Resurface	1
Public Works	Road Network	Road	Local	ELAINE DRIVE	Jeffers Court	Fieldgate Drive	Resurface	1
Public Works	Road Network	Road	Local	ELMWOOD CRESCENT	Credit Creek Boulevard	Credit Creek Boulevard	Resurface	1
Public Works	Road Network	Road	Local	FAIRVIEW PLACE	Birch Street	0.10 km east of Birch Street	Resurface	1
Public Works	Road Network	Road	Local	FIELDGATE DRIVE	College Avenue	Jeffers Court	Resurface	1
Public Works	Road Network	Road	Local	FIELDGATE DRIVE	Passmore Avenue	College Avenue	Resurface	1
Public Works	Road Network	Road	Local	FOURTH STREET	Broadway	First Avenue	Resurface	1
Public Works	Road Network	Road	Local	FOURTH STREET	First Avenue	Second Avenue	Resurface	1
Public Works	Road Network	Road	Local	FRONT STREET	Wellington Street	Amanda Street	Resurface	1
Public Works	Road Network	Road	Local	HENRY STREET	John Street	Margaret Street	Resurface	1
Public Works	Road Network	Road	Local	HILLSIDE DRIVE	Dawson Road	Centre Street	Resurface	1
Public Works	Road Network	Road	Local	LACKEY DRIVE	Centennial Road	0.23km N of Centennial Road	Resurface	1

2024 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Road Network	Road	Local	LAKEVIEW COURT	Buena Vista Drive	400m north of Buena Vista Dr.	Resurface	1
Public Works	Road Network	Road	Local	LEONA STREET	Bythia Street	0.10km east of Bythia Street	Resurface	1
Public Works	Road Network	Road	Local	LISA MARIE DRIVE	Rebecca Drive	Blind Line	Resurface	1
Public Works	Road Network	Road	Local	MEADOW DRIVE	Pheasant Drive	Fieldgate Drive	Resurface	1
Public Works	Road Network	Road	Local	NORTHGATE DRIVE	Sunset Drive	Forest Park Road	Resurface	1
Public Works	Road Network	Road	Local	PHEASANT COURT	45m south of Meadow Drive	300m SE of Meadow Drive	Resurface	1
Public Works	Road Network	Road	Local	PHEASANT DRIVE	40m north of Passmore Avenue	College Avenue	Resurface	1
Public Works	Road Network	Road	Local	SERVICE ROADS (NORTH)	Hansen Boulevard	Hansen Boulevard	Resurface	1
Public Works	Road Network	Road	Local	SERVICE ROADS (SOUTH)	Hansen Boulevard	Hansen Boulevard	Resurface	1
Public Works	Road Network	Road	Local	SUNSET DRIVE	Faulkner Street	Northgate Drive	Resurface	1
Public Works	Road Network	Road	Local	WALSH CRESCENT	Amelia Street	Amelia Street	Resurface	1
Public Works	Road Network	Road	Major Collector	C LINE	Centennial Road	Brenda Boulevard	Resurface	1
Public Works	Road Network	Road	Major Collector	C LINE	Century Drive	Robb Boulevard	Resurface	1
Public Works	Road Network	Road	Major Collector	C LINE	Robb Boulevard	Centennial Road	Resurface	1
Public Works	Road Network	Road	Minor Collector	CENTENNIAL ROAD	C Line	Riddell Road	Resurface	1
Public Works	Road Network	Road	Minor Collector	FIFTH AVENUE	Third Street	Highway 10	Resurface	1
Public Works	Road Network	Sidewalks	Asphalt	HANSEN BOULEVARD	-	-	Replace	1
Public Works	Road Network	Sidewalks	Concrete	DAWSON ROAD	-	-	Replace	1

2024 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Road Network	Traffic Signals	Poles/Bases/Arms/hangars	Townline and Dawson/Cardwell Street	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Detritor - Flow Meter	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Digester Complex Structure - Flare	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	New Plant - 1985 - Gflow meter	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Primary Treatment/Shop/Mechanical/Filter - Shop Boiler	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Sludge Loading Station - Pump No. 1	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Sludge Loading Station - Pump No. 2	-	-	Replace	1
Public Works	Wastewater Network	Water Pollution Control Plant	-	Sludge Loading Station - Structure	-	-	Replace	1
Public Works	Water Network	Water Storage and High Lift stations	Mechanical Equipment	West Sector Reservoir - 4500 m4		-	Replace	1
Public Works	Water Network	Wells	Structures (including plumbing)	Well 6 - 300 m2 - Structures (including plumbing)	-	-	Replace	1
Public Works	Water Network	Wells	Disinfection	Well 6 - 300 m2 - Disinfection	-	-	Replace	1
Public Works	Fleet	Vehicle - Heavy	-	2012 2 ton Truck with Aerial Bucket	-	-	Replace	1
Public Works	Fleet	Vehicle - Heavy	-	2015 Peterbilt 348 Viking Plow	-	-	Replace	1
Public Works	Fleet	Vehicle - Heavy	-	Vacuum Sweeper. replaced 1997 sterling vacuum sweeper	-	-	Replace	1
Public Works	Fleet	Vehicle - Light	Environmental Services	2015 GMC Sierra, White, Crew Cab	-	-	Replace	1
Public Works	Fleet	Vehicle - Medium	-	2011 Intl 7500 Truck Cab and Chassis.	-	-	Replace	1

2024 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Fleet	Vehicle - Medium	-	Outfitting for 2010 Ford F550. Int#7-09.	-	-	Replace	1
Parks & Recreation	Land Improvements	General Land Improvements	-	-	-	-	-	1
Parks & Recreation	Land Improvements	Structure	-	Alexandra Park	-	-	Replace	1
Parks & Recreation	Fleet	Vehicle - Medium	-	Focus II Compact Boost L20 Auto Scrubber	-	-	Replace	1
Parks & Recreation	Fleet	Vehicle - Medium	-	Focus II Compact Boost L20 Auto Scrubber	-	-	Replace	1
Parks & Recreation	Machinery & Equipment	-	-	-	-	-	-	7
Buildings	Facilities	Library	Building Improvements	Library Carpeting	-	-	Replace	1
Buildings	Facilities	Library	Building Improvements	Library Flooring	-	-	Replace	1
Police	Fleet	Vehicle - Light	-	2014 Ford Police Interceptor	-	-	Replace	1
Police	Fleet	Vehicle - Medium	-	2011 Chev Tahoe K9 Unit	-	-	Replace	1
Fire	Fleet	Vehicle - Heavy	-	2008 Pierce Custom Contender Pumper	-	-	Replace	1
Fire	Machinery & Equipment	-	-	-	-	-	-	7
Communication Equipment	IT	-	-	-	-	-	-	1
Computer Hardware	IT	-	-	-	-	-	-	2
Computer Software	IT	-	-	-	-	-	-	2
Electronics	IT	-	-	-	-	-	-	4

2025 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Public Works	Wastewater Network	Water Pollution Control Plant	-	SCADA Communications	-	-	Replace	1
Public Works	Water Network	Wells	Electrical Equipment	Well 5B - Electrical Equipment	-	-	Replace	1
Public Works	Water Network	Wells	Mechanical Equipment	Well 5B	-	-	Replace	1
Public Works	Water Network	Wells	Pumping Equipment	Well 5B - Pumping Equipment	-	-	Replace	1
Public Works	Water Network	Wells	Well	Well 5B - Well	-	-	Replace	1
Public Works	Fleet	Vehicle - Light	-	2015 Kia Rio5 - PW Admin	-	-	Replace	1
Parks & Recreation	Land Improvements	Fencing	-	-	-	-	-	1
Parks & Recreation	Land Improvements	Sidewalk	-	Off-leash Dog Park	-	-	Replace	1
Parks & Recreation	Land Improvements	Walkway	-	Dragonfly Park	-	-	Replace	1
Parks & Recreation	Machinery & Equipment	-	-	-	-	-	-	2
Buildings	Facilities	Building & By-Law	Building Improvements	Town Hall carpet replacement. 2011	-	-	Replace	1
Police	Fleet	Vehicle - Light	-	2013 Ford Taurus Interceptor	-	-	Replace	1
Police	Fleet	Vehicle - Light	-	2016 Ford Explorer - Police Interceptor	-	-	Replace	1
Police	Fleet	Vehicle - Light	-	2016 Ford Explorer - Police Interceptor	-	-	Replace	1
Police	Machinery & Equipment	-	-	-	-	-	-	1
Fire	Machinery & Equipment	-	-	-	-	-	-	1
Building & By-Law	Fleet	Vehicle - Light	-	2015 Nissan Micra SR - White	-	-	Replace	1
Building & By-Law	Fleet	Vehicle - Light	-	2015 Nissan Micra SR - White	-	-	Replace	1
Building & By-Law	Fleet	Vehicle - Light	-	2015 Nissan Micra SR - White	-	-	Replace	1

2025 Assets

Level 1	Level 2	Level 3	Asset Description		From	To	Treatment	Asset Count
Building & By-Law	Fleet	Vehicle - Light	-	2015 Nissan Micra SV - White	-	-	Replace	1
Building & By-Law	Fleet	Vehicle - Light	-	2015 Nissan Micra SV - White	-	-	Replace	1
Communication Equipment	IT	-	-	-	-	-	-	2
Computer Hardware	IT	-	-	-	-	-	-	10
Computer Software	IT	-	-	-	-	-	-	2
Electronics	IT	-	-	-	-	-	-	5