



# Asset Management Plan

2019



#MY Haliburton  
HIGHLANDS



County of Haliburton  
Asset Management Plan

July 2019

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## **1.00 Executive Summary**

Asset management planning is essential in order for the County to understand its asset and infrastructure needs while creating an effective plan for long-term sustainability of those needs. The Asset Management Plan (AMP) has a major impact on the annual budget and long-term financial plan. The AMP ensures that the service delivery needs of the County's citizens are sustained in the future. Well-managed infrastructure fosters prosperity, growth and quality of life for the County's residents, businesses and visitors.

This plan is a living document, it is a picture of the current and expected asset and infrastructure needs at a point in time. It requires regular updates as information and service delivery needs change. This plan should be reviewed annually during budget deliberations and the validity of any assumptions contained in the plan should be confirmed at that time. A major update of the plan is recommended every five years.

The County always tries to maintain its existing infrastructure under current tax levels.

This plan contains a comprehensive inventory and analysis of the County of Haliburton's assets for:

- i. Roads;
- ii. Structures;
- iii. Building and Building Equipment;
- iv. Social Housing;
- v. Fleet;
- vi. Land Ambulance Fleet;
- vii. Land Ambulance Services Equipment;
- viii. Planning and GIS Equipment;
- ix. Information Technology Hardware and Software;
- x. Library Collections; and
- xi. Library Equipment.

The plan states the goals and objectives of the County of Haliburton and it proposes a number of long term financial strategies to support the expansion, renewal and preservation of its assets. This plan is used by County Council and Staff when considering yearly budgets and to assist in planning all County programs or expansions of service.

This plan incorporates best practices in providing a reasonable level of service for all of the County's infrastructure and it prioritizes absolute needs over all other demands. The financial component of the plan indicates how this should be accomplished.

The chart below shows the breakdown of the \$107,298,000 historical cost of the County's capital assets by category at December 31, 2018:

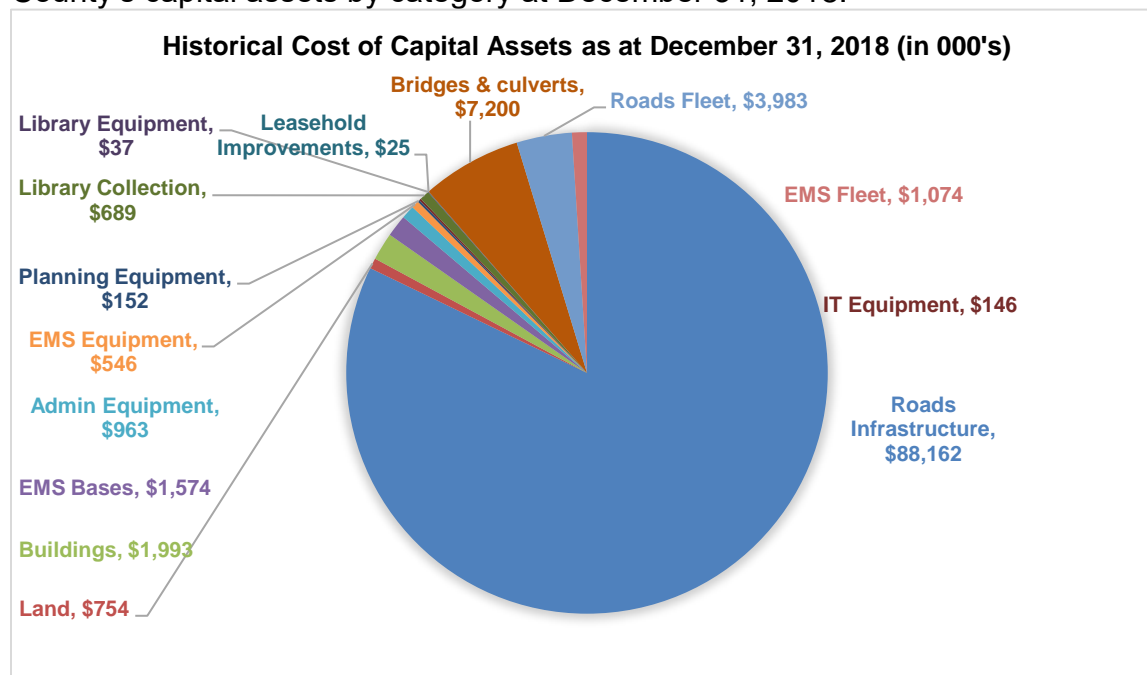


Figure 1.01.1 – Historical Cost of Capital Assets (December 2018)

The chart below shows the Net Book Value of the County's capital assets by category at December 31, 2018.

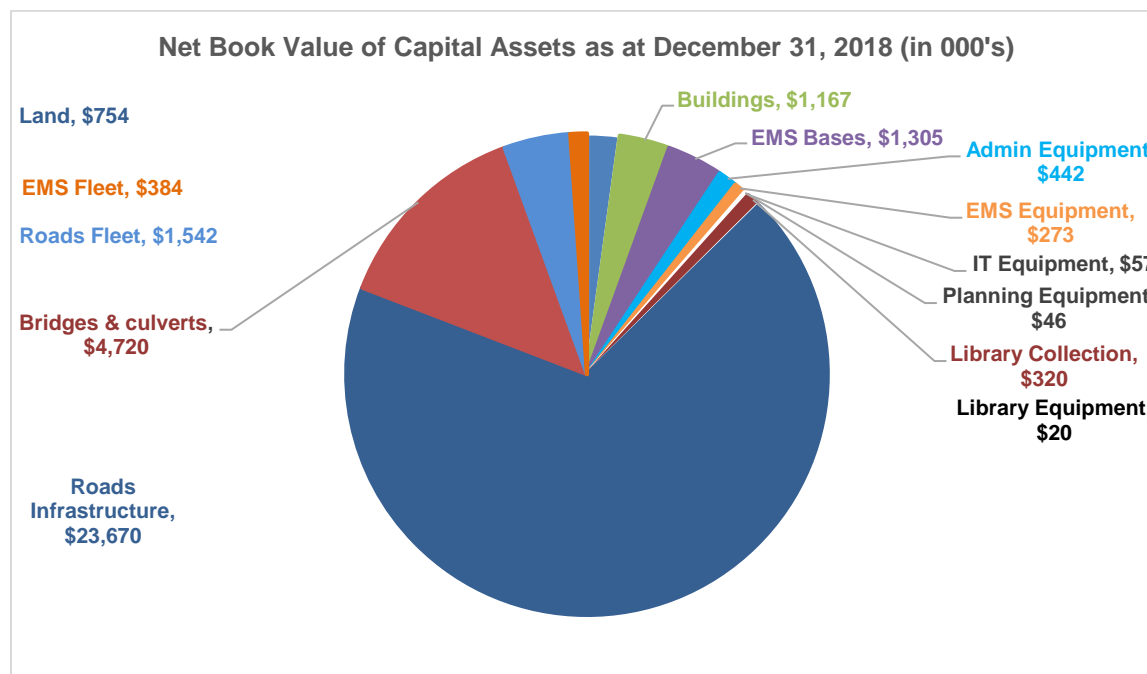


Figure 1.01.2 – Net Book Value Cost of Capital Assets (December 2018)

## **2.00 Goals and Objectives**

This Asset Management Plan has been prepared in response to O.Reg. 588/17 which was released on December 27, 2017. O.Reg. 588/17 regulates asset management planning for municipal infrastructure and is a direct outcome of the *Infrastructure for Jobs and Prosperity Act, 2015*.

This legislation requires the County to create and maintain thorough Asset Management plans (AMPs) for all asset groups by 2022. It also requires that the County's AMP is aligned with Ontario's land-use planning framework, including any relevant policy statements issued under 3 (1) of the *Planning Act*, any provincial plans as defined in the *Planning Act* and the County's Official Plan.

This AMP has also been developed in response to the Ontario Ministry of Infrastructure's *Building Together* initiative, and provides the County with a long-term sustainability plan for County infrastructure and assets. As such, this AMP documents the following for each asset category:

- a) Asset Inventory and Current Condition – using industry accepted methods and asset inventory and current condition management software where available what does the County have, what is it worth, what is its condition and expected remaining service life;
- b) Level of Service – what is the current and expected level of service and the costs to sustain those service levels;
- c) Lifecycle Management Strategy - what needs to be done in order to meet those service levels;
- d) Risk Analysis – what are acceptable risk levels;
- e) Estimated Costs to Service Growth – how much will it cost;
- f) Financial Strategy and Sustainability – how can long-term affordability be ensured?

## **3.00 Roads Infrastructure**

### **3.01 Roads – Asset Inventory and Current Condition**

As at December 31, 2018, the County had roads with a net book value of \$23,670,117. The original cost of these assets was \$88,161,991. Roads have been amortized over 3 to 85 years depending on the road and repair type, with the average being about 20 years. Going forward, the standard amortization period of 10 years for surface treated roads (Low Class Bituminous) and 20 years for hot mix roads (High Class Bituminous) will be used.

The County's road network is almost entirely rural. It consists of a mix of hot mix asphalt and surface treatment. The road network also consists of accessory assets such as guide rail, warning and regulatory signage and culverts. These accessory assets have been

surveyed and placed into the County's Geographic Information System. General information regarding these assets will be stated under "Additional Assets" but extensive information such as valuation will not be explored in this plan. These are scheduled to be included in a future asset management plan update.

In August of 2018, a pavement condition survey was undertaken to acquire a better understanding of the County road system. For each road section, this survey provided a Pavement Condition Index (PCI) along with other variables, i.e. drainage, structural adequacy, and dimensions. In addition to this, the County has recently secured the services of Infrastructure Solutions Incorporated (ISI) which has provided the County with a program for managing road assets. The ISI platform uses values of Poor, Fair, Good and Excellent that are derived from the surface condition or Pavement Condition Index (PCI) along with many other attributes of the road as assigned by the Road Needs Assessment. The industry standard Time of Need (ToN) has not been incorporated in this plan.

Haliburton County currently owns 395.4 kilometres of roadway with 45% (179.15km) being High Class Bituminous (HCB) and 55% (216.25 km) being Low Class Bituminous (LCB).

The current condition of the road network is separated into HCB and LCB since these classes of roadway differentiate significantly in needs, Level of Service (LoS), and life span. The conditions have been established by utilizing formulas and concepts derived from the Ministry of Transportation (MTO) Inventory Manual for Municipal Roads. The County is utilizing a priority rating determined through ISI's algorithms which accounts for all of the different physical, environmental, and social variables of a road section. It is then weighted by Average Annual Daily Traffic (AADT) counts and Minimum Maintenance Standards (MMS) road classification to give higher priority to roads with higher impact.

Currently, many surface treated roads have been pushed far beyond their limits which results in high maintenance costs and higher cost at time of resurfacing.

### **High Class Bituminous (Hot Mix Asphalt)**

The County owns and maintains 179.15 km of High Class Bituminous road network which represents the County's greatest financial investment. As of 2018, HCB or Hot Mix Asphalt (HMA) has a resurfacing cost of approximately \$220,000 per kilometre. This includes a provision for a 1.0 meter paved shoulder and additional granular for base stability.

For the HCB road network, 18.5% or 33 km is rated Poor, 16.6% or 30 km is rated Fair, while 65% is rated Good to Excellent. Roadway rated Poor requires immediate attention while roadway rated Fair requires work within the next few years.\* A surface that is rated Good is to be subjected to preservation techniques whenever financially viable.

Alternative options will be considered for future hot mix asphalt resurfacing. Options such as Cold-in-Place recycling (CIP), paving fabric overlays, and cold laid asphalt will be explored where applicable and may produce a more efficient product. CIP and paving fabric options have been used on County roads in the past with good success.

## Low Class Bituminous (Surface Treated)

The County owns and maintains 216.25 km of Low Class Bituminous road network. As of 2018, LCB or Surface treatment costs ranged from \$32,000 to \$85,000 per kilometre depending on the level of application. These costs may rise with increases in required Level of Service (LoS).

For the LCB road network, 19% is rated Poor, 20% is rated Fair and 61% is in Good or Excellent condition. Again, roadway in the Poor range requires immediate attention while roadway rated Fair requires work within the next few years.\*

\*A few years is dependent on a number of variables including backlog. Sections will be assessed individually if required. For HCB, a few years could be as much as 5-10 years if the deterioration of the surface is slow, whereas for LCB, the total expected life of LCB is approximately 10 years +/- and therefore can be as little as 2-3 years.

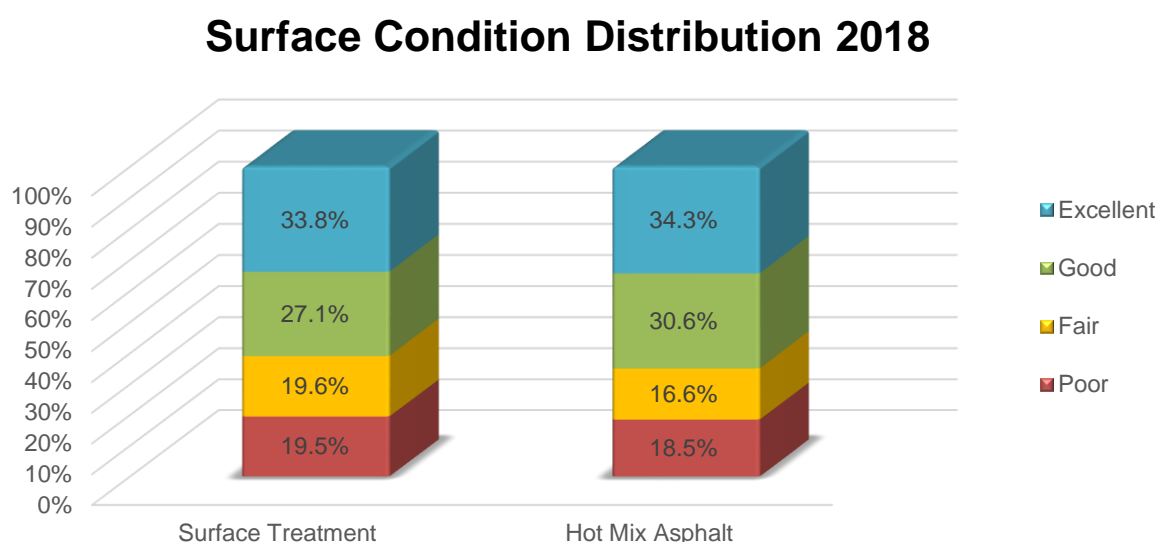


Figure 3.01.1- Surface Condition Distribution (August 2018)

Basic Road Needs data collected August of 2018 (does not represent order of priorities):

Section ID	PCI*	RCR*	Name	Distance (m)	Surf Type	MMS*	AADT*	Speed Limit
19106	29	3	19-HARBURN ROAD	4200	LCB	5	470	50
18014	34	3	18-KASHAGAWIGAMOG LAKE RD	1800	LCB	6	370	40
19000	35	3	19-HARBURN ROAD	1200	LCB	4	750	70
19148	35	4	19-HARBURN ROAD	3400	LCB	6	180	50
1095	38	4	1- GELERT ROAD	3400	HCB	4	700	60
1129	38	6	1- GELERT ROAD	9100	HCB	3	1200	80
17000	39	3	17-INGOLDSBY ROAD	3750	LCB	5	300	60
16000	40	3	16-SOUTH LAKE ROAD	1500	HCB	4	1410	60
2145	41	5	2-DEEP BAY ROAD	3100	LCB	4	1160	70
1050	41	6	1- GELERT ROAD	4500	HCB	4	700	80
18057	42	6	18-KASHAGAWIGAMOG LAKE RD	2000	LCB	5	370	50
19012	42	5	19-HARBURN ROAD	2600	LCB	4	750	70
648203	43	3	648- LOOP ROAD	2000	HCB	4	770	80
16015	45	4	16-SOUTH LAKE ROAD	2000	HCB	4	1410	60

Section ID	PCI*	RCR*	Name	Distance (m)	Surf Type	MMS*	AADT*	Speed Limit
9022	45	3	9-McGILLVRAY ROAD	2500	LCB	5	500	50
3000	46	3	3-GLAMORGAN ROAD	3200	HCB	3	1070	80
3131	47	7	3-GLAMORGAN ROAD	3700	HCB	4	900	80
11000	48	4	11-KUSHOG LAKE ROAD	1200	LCB	5	650	50
16035	48	5	16-SOUTH LAKE ROAD	4100	LCB	4	1040	60
10140	48	4	10-ELEPHANT LAKE ROAD	3800	HCB	4	200	80
18077	49	6	18-KASHAGAWIGAMOG LAKE RD	5100	LCB	5	680	50
13009	49	5	13- LITTLE HAWK LAKE ROAD	2700	LCB	5	440	50
12076	50	5	12-LIVINGSTONE LAKE ROAD	4200	LCB	5	340	60
4000	50	5	4-ESSONVILLE LINE	2300	LCB	4	740	80
8000	50	4	8-KAWAGAMA LAKE ROAD	700	HCB	5	1170	50
19038	52	5	19-HARBURN ROAD	4300	LCB	5	470	50
12036	52	5	12-LIVINGSTONE LAKE ROAD	4000	LCB	5	340	60
11059	53	4	11-KUSHOG LAKE ROAD	6800	LCB	6	90	50
18032	53	5	18-KASHAGAWIGAMOG LAKE RD	2500	LCB	5	370	50
11012	53	6	11-KUSHOG LAKE ROAD	4700	LCB	5	650	50
3032	55	7	3-GLAMORGAN ROAD	3000	HCB	3	1070	80
7002	57	5	7-KENNISIS LAKE ROAD	600	HCB	5	2750	50
4043	58	5	4-ESSONVILLE LINE	4200	LCB	4	740	80
648000	58	8	648- LOOP ROAD	5500	HCB	3	1730	80
12251	59	6	12-LIVINGSTONE LAKE ROAD	2200	LCB	5	200	50
503000	59	6	503- COUNTY ROAD 503	6900	HCB	3	1880	80
1000	61	8	1- GELERT ROAD	5000	HCB	4	700	80
3062	61	7	3-GLAMORGAN ROAD	5100	HCB	4	900	80
3113	61	7	3-GLAMORGAN ROAD	1800	HCB	4	900	80
12174	61	6	12-LIVINGSTONE LAKE ROAD	4500	LCB	5	200	60
1311	61	7	1- GELERT ROAD	500	HCB	4	3850	50
7109	62	6	7-KENNISIS LAKE ROAD	600	HCB	3	1210	80
2116	62	7	2-DEEP BAY ROAD	2600	LCB	4	1160	70
12219	62	6	12-LIVINGSTONE LAKE ROAD	3200	LCB	5	200	60
19182	62	6	19-HARBURN ROAD	800	LCB	6	180	50
9047	63	6	9-McGILLVRAY ROAD	1000	LCB	5	500	50
13036	65	6	13- LITTLE HAWK LAKE ROAD	1500	LCB	5	220	50
121000	65	7	121-COUNTY ROAD 121	5000	HCB	3	2220	80
14000	67	8	HALIBURTON LAKE ROAD	7700	HCB	4	750	80
10031	68	8	10-ELEPHANT LAKE ROAD	2500	LCB	5	490	50
19081	68	7	19-HARBURN ROAD	2500	LCB	5	470	50
10056	68	8	10-ELEPHANT LAKE ROAD	8400	LCB	4	490	80
7012	68	8	7-KENNISIS LAKE ROAD	5000	HCB	3	1830	80
48000	68	7	48- DYNO ROAD	4800	LCB	4	580	80
1307	68	6	1- GELERT ROAD	400	HCB	4	3850	50
20046	68	5	20-HORSESHOE LAKE ROAD	3100	LCB	5	280	50
15053	69	7	15-BURLEIGH ROAD	2600	LCB	5	130	60
21198	70	8	21-COUNTY ROAD 21	1600	HCB	4	4190	50
8018	70	7	8-KAWAGAMA LAKE ROAD	2300	LCB	5	350	60
20000	70	7	20-HORSESHOE LAKE ROAD	4600	LCB	5	1120	50
14077	71	6	14-HALIBURTON LAKE ROAD	800	LCB	5	750	50
6064	71	8	6-EAGLE LAKE ROAD	800	HCB	4	650	80
4085	71	8	4-ESSONVILLE LINE	500	HCB	5	710	50
503374	72	6	503- COUNTY ROAD 503	400	HCB	4	1420	60
21000	72	7	21-COUNTY ROAD 21	7400	HCB	3	3510	80
21074	73	8	21-COUNTY ROAD 21	5300	HCB	3	2870	80
2060	73	9	2-DEEP BAY ROAD	5600	LCB	4	550	70
21223	74	8	21-COUNTY ROAD 21	100	HCB	3	8740	50

Section ID	PCI*	RCR*	Name	Distance (m)	Surf Type	MMS*	AADT*	Speed Limit
8007	74	8	8-KAWAGAMA LAKE ROAD	1100	LCB	4	1170	60
8041	75	7	8-KAWAGAMA LAKE ROAD	3900	LCB	5	350	60
1316	75	7	1- GELERT ROAD	100	HC	4	3850	50
6072	76	9	6-EAGLE LAKE ROAD	900	HC	5	650	50
648078	76	9	648- LOOP ROAD	6800	HC	3	1560	80
12000	76	7	12-LIVINGSTONE LAKE ROAD	3600	LCB	4	500	60
21152	77	8	21-COUNTY ROAD 21	4600	HC	3	3090	80
21214	77	8	21-COUNTY ROAD 21	900	HC	3	8740	50
9000	78	7	9-McGILLVRAY ROAD	2200	LCB	4	420	70
8121	79	9	8-KAWAGAMA LAKE ROAD	5700	LCB	5	350	60
21127	79	8	21-COUNTY ROAD 21	2500	HC	3	3090	80
10000	79	8	10-ELEPHANT LAKE ROAD	3100	LCB	4	490	80
648175	79	8	648- LOOP ROAD	2800	HC	4	670	80
13000	80	9	13- LITTLE HAWK LAKE ROAD	900	HC	5	440	50
648055	80	9	648- LOOP ROAD	800	HC	5	2530	50
648063	80	9	648- LOOP ROAD	300	HC	5	2530	50
7115	80	7	7-KENNISIS LAKE ROAD	6600	LCB	4	680	80
9062	80	6	9-McGILLVRAY ROAD	500	LCB	4	530	70
8080	80	9	8-KAWAGAMA LAKE ROAD	4100	LCB	5	350	60
503184	81	8	503- COUNTY ROAD 503	5700	HC	3	1650	80
1264	82	8	1- GELERT ROAD	3100	HC	3	1720	80
507037	84	8	507- BUCKHORN ROAD	3100	LCB	4	840	80
503120	84	8	503- COUNTY ROAD 503	6400	HC	3	1660	80
9057	84	5	9-McGILLVRAY ROAD	500	LCB	4	530	70
1295	86	9	1- GELERT ROAD	1200	HC	3	3850	60
39010	87	9	39-DORSET ROAD	750	HC	5	1740	50
14085	88	6	14-HALIBURTON LAKE ROAD	3600	LCB	4	850	70
14121	88	6	14-HALIBURTON LAKE ROAD	7800	LCB	4	500	70
15000	88	8	15-BURLEIGH ROAD	800	HC	4	500	60
503069	88	9	503- COUNTY ROAD 503	5100	HC	3	1880	80
5000	88	9	5-SOUTH BAPTISTE LK ROAD	3100	LCB	4	660	60
507002	89	8	507- BUCKHORN ROAD	3500	LCB	4	840	80
121050	91	9	121-COUNTY ROAD 121	9000	HC	3	2140	80
503327	92	9	503- COUNTY ROAD 503	4700	HC	3	1420	80
6000	92	7	6-EAGLE LAKE ROAD	6400	LCB	3	1030	80
7062	93	9	7-KENNISIS LAKE ROAD	4700	HC	3	1830	80
2176	93	9	2-DEEP BAY ROAD	500	HC	5	1160	50
648146	93	10	648- LOOP ROAD	1300	HC	3	1560	80
648159	93	8	648- LOOP ROAD	1600	HC	4	670	80
15016	94	7	15-BURLEIGH ROAD	3700	LCB	5	130	60
648066	94	9	648- LOOP ROAD	1200	HC	4	2530	60
7008	94	9	7-KENNISIS LAKE ROAD	400	HC	5	2750	50
503258	95	9	503- COUNTY ROAD 503	6900	HC	3	1420	80
1220	95	9	1- GELERT ROAD	4400	HC	3	1200	80
7000	95	9	7-KENNISIS LAKE ROAD	200	HC	4	2750	60
18000	95	10	18-KASHAGAWIGAMOG LAKE RD	1400	HC	5	800	50
4023	96	7	4-ESSONVILLE LINE	2000	LCB	4	740	80
13051	96	10	13- LITTLE HAWK LAKE ROAD	200	HC	5	220	50
503241	96	8	503- COUNTY ROAD 503	1700	HC	3	2060	80
507000	96	8	507- BUCKHORN ROAD	200	HC	4	840	60
12118	97	8	12-LIVINGSTONE LAKE ROAD	5600	LCB	5	200	60
20077	97	9	20-HORSESHOE LAKE ROAD	1800	LCB	5	280	50
15079	98	8	15-BURLEIGH ROAD	4100	LCB	5	130	60
648223	98	9	648- LOOP ROAD	9500	LCB	4	770	80

Section ID	PCI*	RCR*	Name	Distance (m)	Surf Type	MMS*	AADT*	Speed Limit
15008	99	9	15-BURLEIGH ROAD	800	LCB	5	130	60
2000	100	8	2-DEEP BAY ROAD	2900	LCB	5	550	60
2029	100	6	2-DEEP BAY ROAD	3400	LCB	5	550	50

*Table 3.01.1- Roads – Inventory and Condition Listing (August 2018)*

*\*PCI = Pavement Condition Index*

*\*RCR = Ride Comfort Rating*

*\*MMS = Minimum Maintenance Standard Road Class*

*\*AADT = Average Annual Daily Traffic*

Figure 3.01.2 is intended to illustrate the distribution of road surface conditions throughout the County at the time of the 2018 Road Needs Assessment.

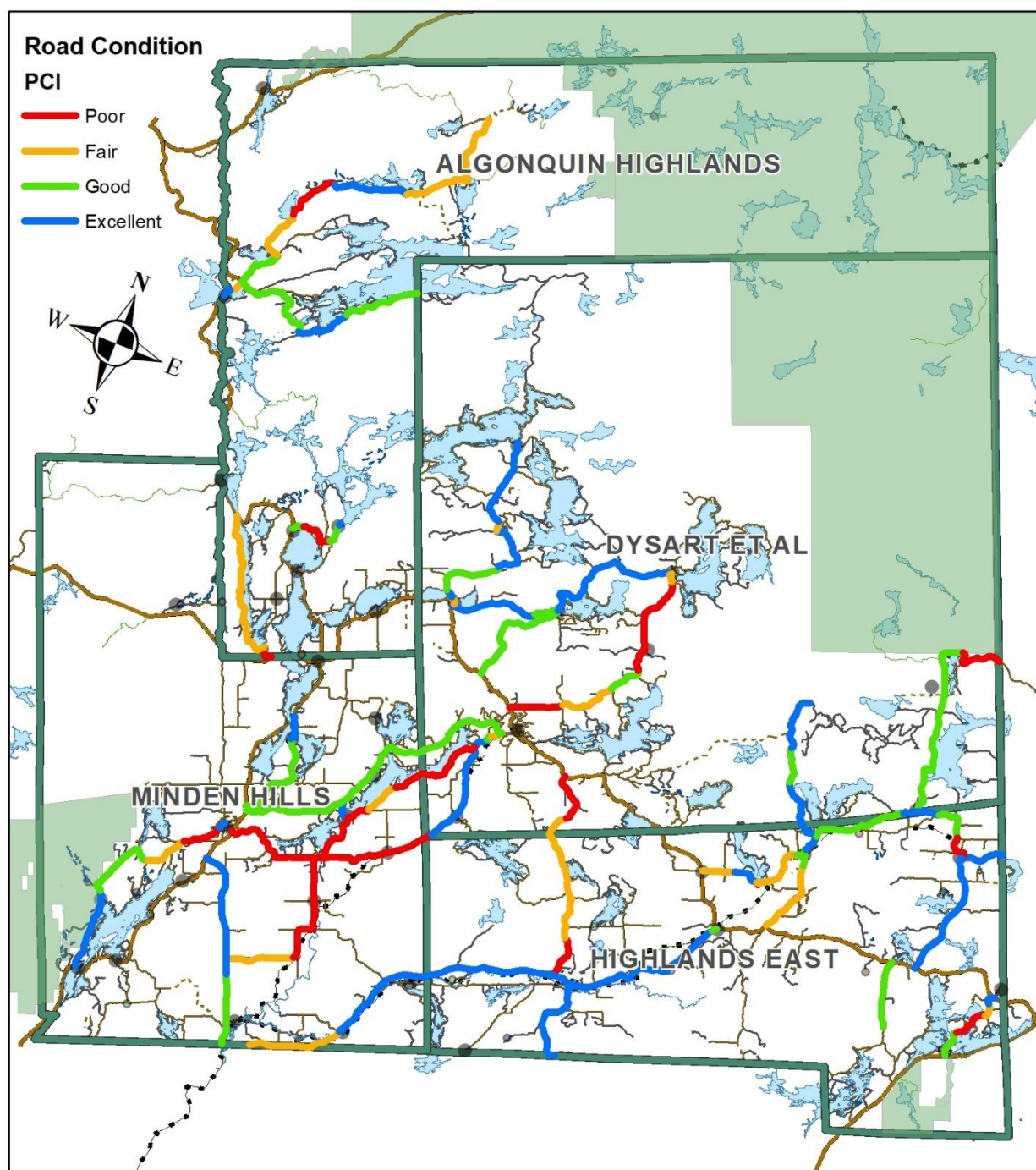


Figure 3.01.2- Road Conditions (see larger fold out map in Appendices)

### Additional Assets

The County has been collecting information on the following assets for the purpose of asset management planning. A financial evaluation of these assets has not been prepared at this time. Basic information is provided in Table 3.01.2 and was collected between 2015 and 2018.

Asset	Quantity	Overall Condition
Centreline Culverts (Under 3 meters in diameter)	1255 units	Good (34% Excellent) (29% Good) (24% Fair) (13% Poor)
Warning and Regulatory signage	4,400 units	Excellent (All signs are inspected every 16 months as per O. Reg. 366/18 as amended)
Guide Rail Systems	697 Sections totalling 73,285 meters	Good (Replacement of 1400 posts in 2018)

Table 3.01.2 – Condition of Accessory Assets

### 3.02 Roads – Level of Service

LoS can be viewed in many ways, but generally for rural communities, is the ability for a roadway to accommodate the demands of traffic. This can be simply defined as the ability for traffic to flow freely, at the posted speed limit, without obstructions, nuisances (most commonly road surface condition), active transportation, accidents or breakdowns, greatly affecting the flow of traffic.

LoS can be broken down into two categories: Community Level of Service and Technical Level of Service. Community Level of Service describes the end-users experience through qualitative descriptions while Technical Level of Service describes what the County provides through metrics (Table 3.02.1).

The County's ten year target is to have a Network Overall Performance rating of 80%. The 2018 Road Needs Assessment places the County at 70%. This is an indicator of technical and community level of service. The 80% marker has been chosen through running many analytic scenarios that indicate this is a reasonable and achievable goal.

Network Overall Performance is a key performance indicator of a road network considering the Pavement Condition Index (PCI) of individual road sections weighted by their length, in addition to all other network priorities and community benefits as pertaining to each individual road section. The Network Overall Performance indicates numerical values between 0 and 100, with 100 representing the most desirable performance and 0 representing the worst performance. (Infrastructure Solutions Incorporated, 2018)

PCI values are determined through a complex rating system partially derived from the Ministry of Transportations' SP 024 (manual for condition rating of flexible pavements), the Ministry of Transportations' Inventory Manual for Municipal Roads and local experience. A general description of the PCI ratings is illustrated here:

PCI	Rating
-----	--------

< 50	<p>Poor</p> <p>Pavement is in Poor condition with extensive severe cracking, alligating, and distortion.</p> <p>The Ride Comfort Rating is very Poor and the surface is very rough and uneven.</p>
50-65	<p>Fair</p> <p>Pavement is in Fair condition with frequent moderate cracking and distortion and intermittent moderate alligating.</p> <p>The Ride Comfort Rating is Poor to Fair and the surface is moderately rough and uneven.</p>
65-80	<p>Good</p> <p>Pavement is in Good condition with slight cracking, slight or very slight distortion and a few areas of slight alligating.</p> <p>The Ride Comfort Rating is Good with intermittent rough and uneven sections.</p>
80-100	<p>Excellent</p> <p>Pavement in Excellent condition with few cracks.</p> <p>The Ride Comfort Rating is Excellent with few areas of very slight to slight distortion.</p>

*Table 3.02.1 Pavement Condition Index*

## Ride Comfort Rating

Subsequent to the Pavement Condition Index, the Road Needs Assessment evaluates the Ride Comfort Rating (RCR) of the surface. As shown in Table 3.01.1, the RCR indicates a value from 1 to 10, 10 being best. The RCR generally tracks the PCI but will vary as some roads may have excessive distortion without much pavement distress, and vice versa.

## Active Transportation

Active Transportation is gaining popularity as a mode of transportation within our communities. A suitable LOS is required in order to facilitate walking, running and cycling on the County road system. The County views this as a very important factor in the health of the County's residents and community and therefore this is a large factor in the decisions made when resurfacing or reconstructing a roadway. The County considers recommendations from the [Haliburton County Cycling Master Plan, July 2008](#) when making decisions.

Active transportation requires roads being widened and shoulders being paved. Currently, the County of Haliburton does not have an Active Transportation Plan although it does promote Active Transportation in the County's Official Plan.

## Pavement Widening

When feasible, the County will implement pavement widening when resurfacing a hot mix asphalt roadway. This serves a number of different purposes such as, reduced

maintenance costs, edge breakaways, and vehicle refuge while allowing active transportation more separation from vehicles.

### 3.03 Roads – Lifecycle Management Strategy

The appropriate maintenance or rehabilitation schedule must be applied throughout an asset's lifecycle in order to cost effectively maintain the road network at the established service levels. Five maintenance strategies are required in order to provide sustainable management of County roads. Table 3.03.1 is a general guideline. The trigger for a life cycle management strategy may vary due to other factors such as AADT and community priorities.

Strategy	Lifecycle Activity	Trigger
Minor or routine maintenance	Regularly scheduled maintenance and inspection programs including conditions assessments and pothole repairs. These activities do not increase the overall condition of the road segment, nor increase its useful service life.	Ongoing
Preventative maintenance	Planned preventative maintenance includes crack seal, slurry seal or micro-surface activities. These activities increase the condition of the road segment and extend its useful service life by eliminating water penetration and increasing traction characteristics.	PCI=>80
Localized Repairs	Planned activities such as, patching sections of road and repairing major damage due to traffic, environmental or other impacts. These activities increase the condition of the road segment and extend its useful service life.	PCI 65-80
Rehabilitation	Planned activities such as surface grinding and full depth asphalt removal/repaving. These activities increase the condition of the road segment and extend its useful service life.	PC <50
Replacement	Activities such as localized road base replacement. Complete replacement of the road surface typically is not feasible with budgetary constraints. These events are possible at the end of the useful service life and also when required due to increased traffic volumes or road widening.	PCI <40 with special consideration

Table 3.03.1- Roads – Lifecycle Management Strategies

## Pavement Preservation

### High Class Bituminous

In October 2016, the County introduced a long term Asset Management Strategy for road preservation. It outlined a comprehensive pavement preservation strategy, implementation started in 2017. This strategy calls for various preservation tactics to be complementary to all HCB projects. This includes procedures such as crack sealing, micro-sealing, and pavement rejuvenation techniques that will be performed as key Life Cycle Events (LCE). Strategically placed LCE's will greatly extend the life of the high-class bituminous roads while reducing overall expenditures. Infrastructure Solutions Inc. adds another layer of comprehensiveness in determining when LCE's are required through complex deterioration curves.

Comparing resurfacing every twenty years (no preservation, worst first approach) to a preventative strategy that will extend surface life to thirty years, shows a 16% cost benefit related to using preventative maintenance. Over a 60 year period that becomes a 31% cost benefit. The following graph (Figure 3.03.1) compares 1 km of roadway with and without preventative maintenance (expenditures are cumulative). The gain in life of the roadway and financial expenditures becomes obvious past twenty years. Over a 60 year period, without preservation a road requires resurfacing 3 times versus 2 with preservation. This is a concept only and is not intended to be accepted as a life cycle event schedule for all high class bituminous roadways.

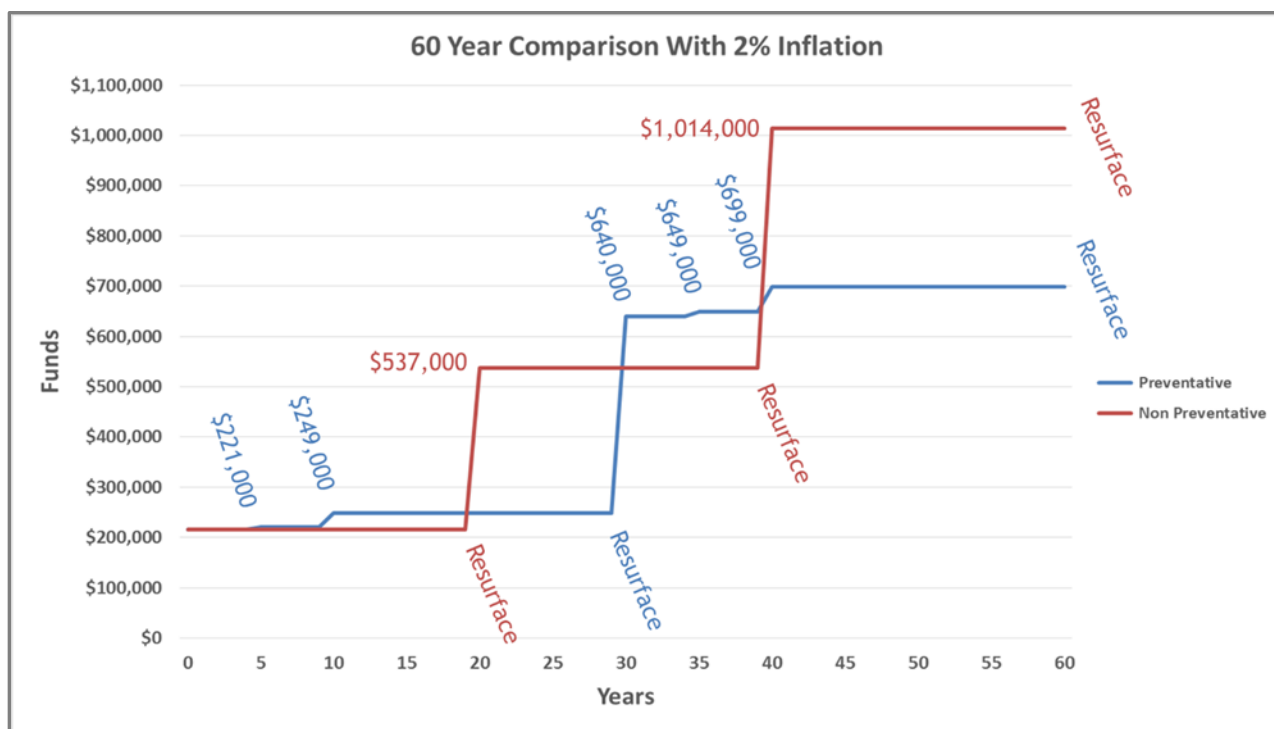


Figure 3.03.1- 60 Year Surface Comparison

The preventative maintenance scenario allows the County to make significant infrastructure deficit reductions and corresponding financial advances, but this will need to be accompanied with a strict plan such as the one the County has arrived at. The commonly viewed perpetual LCE and deterioration graph is great as a concept, but does not accurately represent the reality of HMA. The preservation techniques will improve or rejuvenate and increase the life of the road but deterioration is inevitable and with the

relatively thin HMA placements in the County, replacement eventually becomes the only viable option.

### Low Class Bituminous

A preservation plan for LCB is not as practical. Preservation techniques applied to surface treated roads do not provide enough extended life expectancy to justify the cost of the preservation treatment. It is equally cost effective to surface treat a road when it has come to a point of expiry. Surface treatment can be viewed as a preservation treatment in itself.

### Road Reconstruction

The County will reconstruct localized problem areas as efficiently as possible and when absolutely necessary, but does not assume reconstruction needs otherwise.

### 5 Year Capital Plan

The County aims to maintain a 5 year capital plan that is presented to Council every year for approval.

## 3.04 Roads – Risk Analysis

The County has accepted a network priority rating which accounts for Minimum Maintenance Standards Road Classification to give higher priority to roads with higher required levels of service.

The higher the traffic volume and/or posted speed limit, the greater the consequence to traffic should the road significantly deteriorate. The network priority rating utilizes, the *Classification of Highways* table (O. Reg. 366/18, s. 1 (5)) as shown in Table 3.04.1 as one aspect of the priority rating. Portions of the table are eliminated for simplicity reasons and to represent the County's situation.

\*Some road section priorities (road class) may be “bumped up” for operational efficiencies and consistency with adjacent sections.

<b>CLASSIFICATION OF HIGHWAYS (as per O. Reg. 366/18, s. 1 (5))</b>					
<b>Average Daily Traffic (number of motor vehicles)</b>	<b>71 - 80 km/h speed limit</b>	<b>61 - 70 km/h speed limit</b>	<b>51 - 60 km/h speed limit</b>	<b>41 - 50 km/h speed limit</b>	<b>1 - 40 km/h speed limit</b>
10,000 - 11,999	2	2	3	3	3
8,000 - 9,999	2	3	3	3	3
6,000 - 7,999	2	3	3	4	4
5,000 - 5,999	2	3	3	4	4
4,000 - 4,999	3	3	3	4	4
3,000 - 3,999	3	3	3	4	4

2,000 - 2,999	3	3	4	5	5
1,000 - 1,999	3	3	4	5	5
500 - 999	4	4	4	5	5
200 - 499	4	4	5	5	6
50 - 199	4	5	5	6	6
0 - 49	6	6	6	6	6

Table 3.04.1- Classifications of Highways

### 3.05 Roads – Estimated Costs to Service Growth

The County's Official Plan is projecting a population increase of approximately 4,500 by 2036. Within that growth the County's Official Plan also sets a target for creating approximately 1,700 new jobs. These jobs would be related to new commercial/industrial development. This development is expected to impact service growth in Roads. Additional road development related to entrances and turn lanes would be offset by development charges. Otherwise, minimal service growth is expected in Roads within the next 10 years.

### 3.06 Roads – Financial Strategy and Sustainability

Of the five life cycle management strategies (Table 3.03.1) utilized by the County, minor or routine maintenance is incorporated in the operating budget while preventive maintenance, localized repairs, rehabilitation, and replacement are incorporated into the capital budget.

Capital investments for the roads network are funded by levy, reserves, Federal Gas Tax funding, the Ontario Community Infrastructure Fund (OCIF) formula based (replaced with new Investing in Canada Infrastructure Program (ICIP) funding), application based funding, and debt.

The estimated value of resurfacing over the next ten years is subject to fluctuation due to changing needs and scopes of work over time. For the County to eliminate its resurfacing deficit within a ten year period, an estimated expenditure of approximately \$30,000,000 would be required.

To hold a sustainable network performance with minimal deficit, the yearly expenditure is expected to be approximately \$2,850,000/year. This is determined by the County's decision optimization program (ISI) and is confirmed through manual calculations. The County is capable through this program to run any combination of budget scenarios. Ideally, the County would implement the required budget from day one and realistically it may need to be implemented over a number of years, elongating the deficit reduction.

After a road is resurfaced, it is subjected to a preservation program where it will see the proper treatments that will allow that asset to provide a Good Level of Service for a longer period of time.

The costs as estimated above have not had inflation represented in them. The implementation of a preservation plan relies heavily on the financial ability to reduce the roadway infrastructure deficit. Figure 3.03.1 illustrates the long-term savings that are available.

One factor in the County's ability to execute this preservation plan in a reasonable manner is the need to eliminate the infrastructure deficit. As at December 31, 2018, 19% of the County's roads were rated in Poor condition. The will require a minimum investment of \$12.5 million. Funding solutions involving increased levies, additional government funding and debt must all be considered, otherwise, a decreased Level of Service will be the norm until deficiencies are resolved. This will result in greater dissatisfaction from the public and ever increasing maintenance costs which will further hinder the implementation of a sustainable plan. The decision optimization program that the County utilizes for capital roads planning will allow the County to efficiently and accurately run various scenarios. These scenarios will provide capital planning along with projected condition ratings and deficits.

The County does not estimate full replacement or reconstruction costs of the road network as this is financially unrealistic and does not provide practical information.

### Current Available Funding

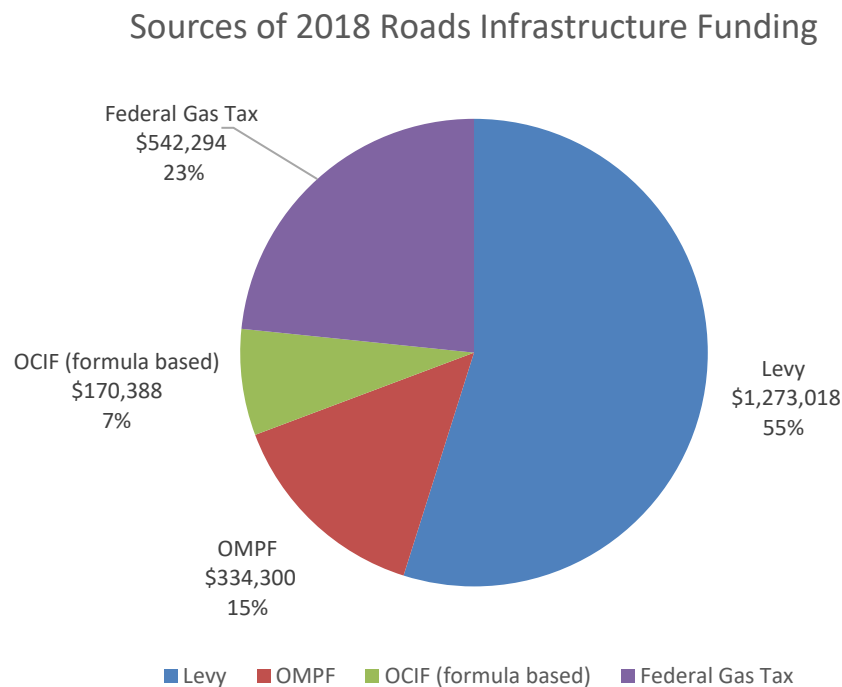


Figure 3.06.1- Sources of 2018 Roads Infrastructure Funding

### Current Budget Capital Spend and Sustainability

The 2019 approved capital budget included a capital investment for Roads of \$2,498,146 plus operating budget of \$240,000 for crack sealing and preservation for a total of \$2,738,146.

## **Federal Gas Tax Funding**

The Federal Gas Tax Fund provides all municipalities across the country with a permanent, stable and indexed source of infrastructure funding. It was made permanent in 2011 and provides flexible, long term funding for municipal infrastructure. The County of Haliburton received \$542,294 in Federal Gas Tax funding for 2018. This was incorporated in the 2018 capital investment for County Road 648 resurfacing.

The Federal Gas Tax for 2019 is expected to be \$1,084,588 or double the 2018 amount. This one-time increase is to assist in reducing the infrastructure deficit.

## **Ontario Community Infrastructure Funding (OCIF) – Formula Base**

The Ontario Community Infrastructure Fund (OCIF) historically provided steady, long-term funding for small, rural and northern communities to develop and renew their infrastructure. Eligible recipients were guaranteed to receive a minimum of \$50,000 per year. OCIF funding has been fully utilized every year for road resurfacing. As of March 2019, the OCIF program has been discontinued and replaced with new Investing in Canada Infrastructure Program (ICIP) funding.

## **OCIF – Application Base**

The County was eligible for \$1.452M top-up funding in 2018. Eligibility varies year to year depending on previous amounts received. The County applied for OCIF top-up funding for 2018 for the Hawk Lake Bridge precluding the use of this funding in the near future for roads. Under the top-up application component, approximately \$100 million was to be distributed among communities who successfully applied for additional funding through the Ontario Community Infrastructure Fund (OCIF). This allowed communities to partner with the Province to invest in critical infrastructure projects that create jobs and support economic growth. As of March 2019, the OCIF program has been discontinued and replaced with new ICIP funding. The County re-applied for ICIP for the Hawk Lake Bridge project.

## **Ontario Municipal Partnership Funding (OMPF)**

The OMPF is an unconditional transfer payment from the Province to municipalities. 100% of this funding is related to Transitional Assistance. The Province continues to phase out OMPF at the County level while supplementing it at the Local level. Funding for 2018 was \$334,300. The Province will be discontinuing this funding stream in 2020.

## **Reserves**

The County has an internally designated Roads capital reserve of \$122,352 as at December 31, 2018. Sustainability for Road Capital expenditures is gradually being included in the budget. In the event that a contingency occurs that requires unbudgeted funds, funding will be provided through reallocation of current year budget amounts or directly from the Working Capital Reserve. As at December 31, 2018 the Working Capital Reserve contained \$1,641,542. The Working Capital Reserve is not internally designated. It is a general reserve to be used to cover unexpected situations and requires

approval from Council. Best practice is to have a balance in the Working Capital Reserve of 2 months of operating expenses.

## **Debt**

The County will consider debt if necessary to reduce or eliminate any gap in infrastructure needs. An annual debt repayment limit is set by the Ministry of Municipal Affairs under O.Reg. 403/02. The County has significant unutilized debt capacity.

## **Current Budgeted Debt Payment**

The years 2015-2019 included a debt repayment amount of \$475,000 for a capital loan for County Roads 7 and 14. The final payment for that loan will occur in 2019, therefore \$475,000 becomes available in 2020 to go directly to capital for roads.

## **Other Funding**

The County will continue to apply for all appropriate funding opportunities.

## 4.00 Structures – Bridges and Culverts

### 4.01 Structures – Asset Inventory and Current Condition

As at December 31, 2018, the County had bridges and culverts with a net book value of \$4,719,688. The original cost of those bridges and culverts was \$7,199,784. Bridges and culverts have been amortized over 25 to 100 years depending on the structure. Going forward, a standard period of 50 years will be used for all bridges.

The County road network consists of 17 bridges (two of which are rail trail bridges and are to be considered under Rail Trail in a future plan update) and 23 culverts that fall within the Ontario government's regulations for structures. As per this regulation (O.Reg 472/10), Ontario Municipalities are required to visually inspect their structures as per the provided Ontario Structure Inspection Manual (OSIM). The current condition of County structures was surveyed and reported on by an engineering consultant in August of 2018.

- i. This report provided a Bridge Condition Index (BCI) and a Bridge Sufficiency Index (BSI) for each structure. The BCI is an overall condition derived from structural deficiency data collected by the consultant and directly represents the technical condition of the structure. This rating enables the County to determine which structures are to be maintained, repaired or replaced and when.

Bridge Condition Index	
Rating	Score
Poor	1 to 59
Fair	60 to 69
Good	70 to 100
Overall Rating ( <i>Averaged BCI Ratings</i> )	Fair (69)

Table 4.01.1- Bridge Condition Index (MTO 2015) <http://www.mto.gov.on.ca/english/highway-bridges/ontario-bridges.shtml>

The average BCI for all structures as presented in 2018 is 69. This is not a direct indication of bridge safety but an averaged overall indication from a network maintenance perspective of what the County's needs are. Some structures are considerably below average and need immediate attention, while some are in Good condition and just require maintenance.

***\*All structure inventory information is as per the 2018 OSIM Inspections***

### Bridge Inventory and Condition

Structure Name	Structure ID	BCI	BSI
Drag River Bridge	001137	44	37
Horseshoe Lake Bridge	020077	50	49
Hawk Lake Road Bridge	013034	58	49
Gooderham Bridge	507001	60	59
Paudash Lake Bridge	009017	61	57
Eagle Lake Road Bridge	006063	65	59
West Guilford Bridge	007002	65	59
Dorset Bridge	039011	68	67
Furnace Falls Bridge	503069	68	67
York River Bridge	010140	70	64
Ingoldsby Bridge	018011	73	72
Dark Lake Bridge	648080	75	74
Hollow River Bridge	008019	86	79
Head Lake Bridge	021217	91	90
Allsaw Bridge	021128	98	97
<b>Average</b>		<b>69</b>	<b>65</b>

*Table 4.01.2 – Bridges - Inventory and Condition Listing*

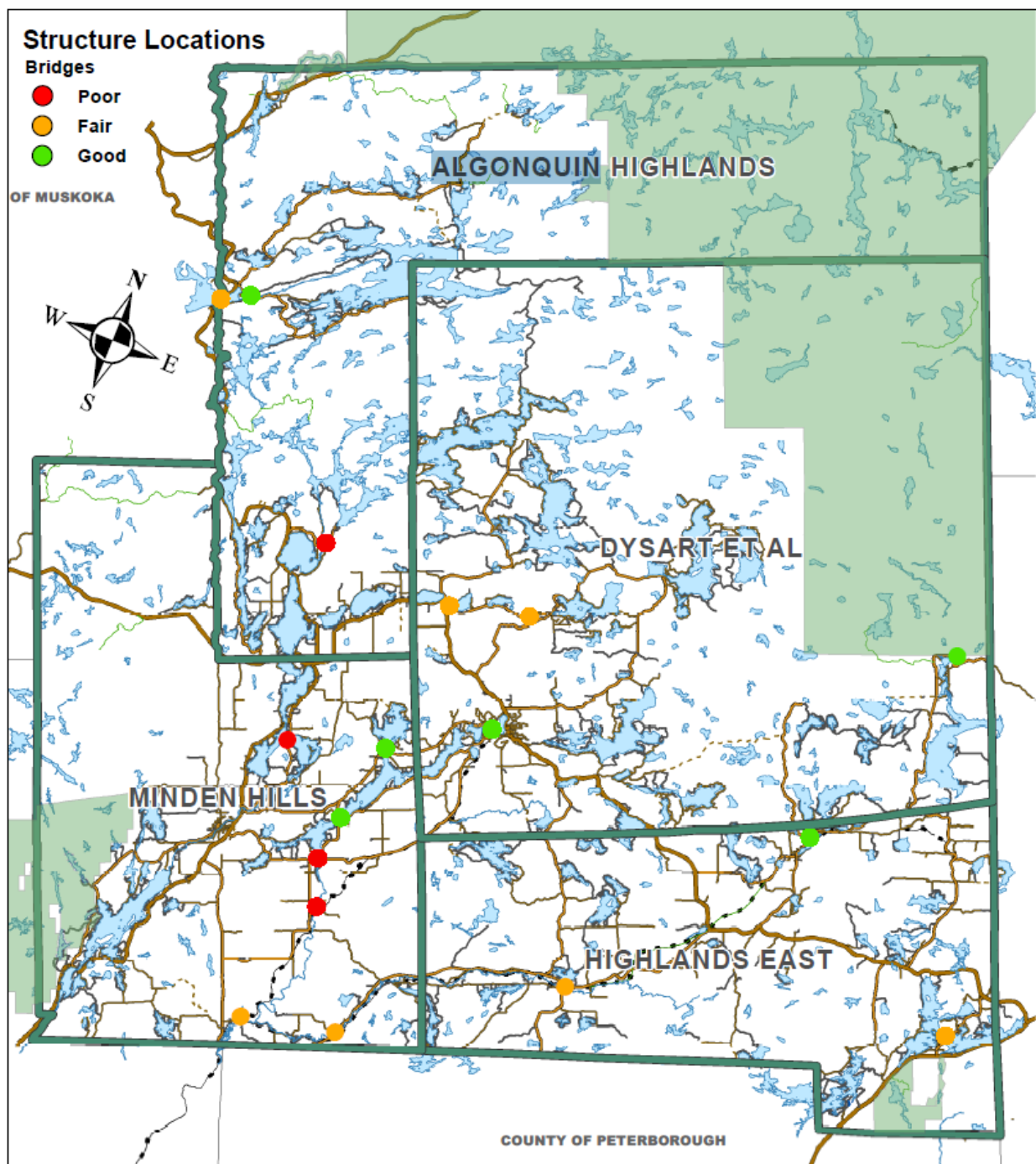


Figure 4.01.1- Bridge Conditions – Road and Rail Trail (see larger fold out map in Appendices)

### Rail Trail Bridges

Structure Name	Structure ID	BCI	BSI
Gelert Railway Bridge	RT-2	44	43
Howland Junction Trestle	RT-1	68	67
<b>Average</b>		<b>56</b>	<b>55</b>

Table 4.01.3 Rail Trail Bridges – Inventory and Condition Listing

*\*Rail Trail bridges are shown here for illustration purposes only as they have been incorporated in the County's OSIM inspections. These are not included in any condition or financial calculations under structures.*

*A future update to this asset management plan will incorporate the Rail Trail.*

## Culvert Inventory and Condition

Structure Name	Structure ID	BCI	BSI
Lower Cup Lake Culvert	648287	32	31
County Road 503 Box Culvert	503054	38	37
McGillvary Road Culvert	009061	45	44
Bark Creek Culvert	503150	50	49
Hudson Creek Culvert	648225	54	53
County Road 648 Culvert	648284	55	54
Inlet Bay Culvert	009064	58	57
Bluehawk Lake Culvert	003135	68	67
Fishtail Lake Road Culvert	010094	69	68
Esson Lake Culvert	004042	70	69
Haliburton Lake Road Culvert	014083	71	70
Kingscote Road Culvert	010119	74	73
Gelert Culvert	001095	75	74
Haliburton Culvert	001298	75	74
County Road 503 Twin Culvert	503257	75	74
Pivot Lake Culvert	007063	77	76
County Road 503 Culvert	503214	78	77
Sinclair Pond Culvert	001020	81	80
Eagle Lake Road Culvert	006060	81	80
Little Bob Lake Culvert	002108	84	83
Camp Northland Culvert	014160	89	88
Parson's Road Culvert	014119	95	94
Kendrick Creek Culvert	001010	99	98
<b>Average</b>		<b>69</b>	<b>68</b>

*Table 4.01.4 – Culverts - Inventory and Condition Listing*

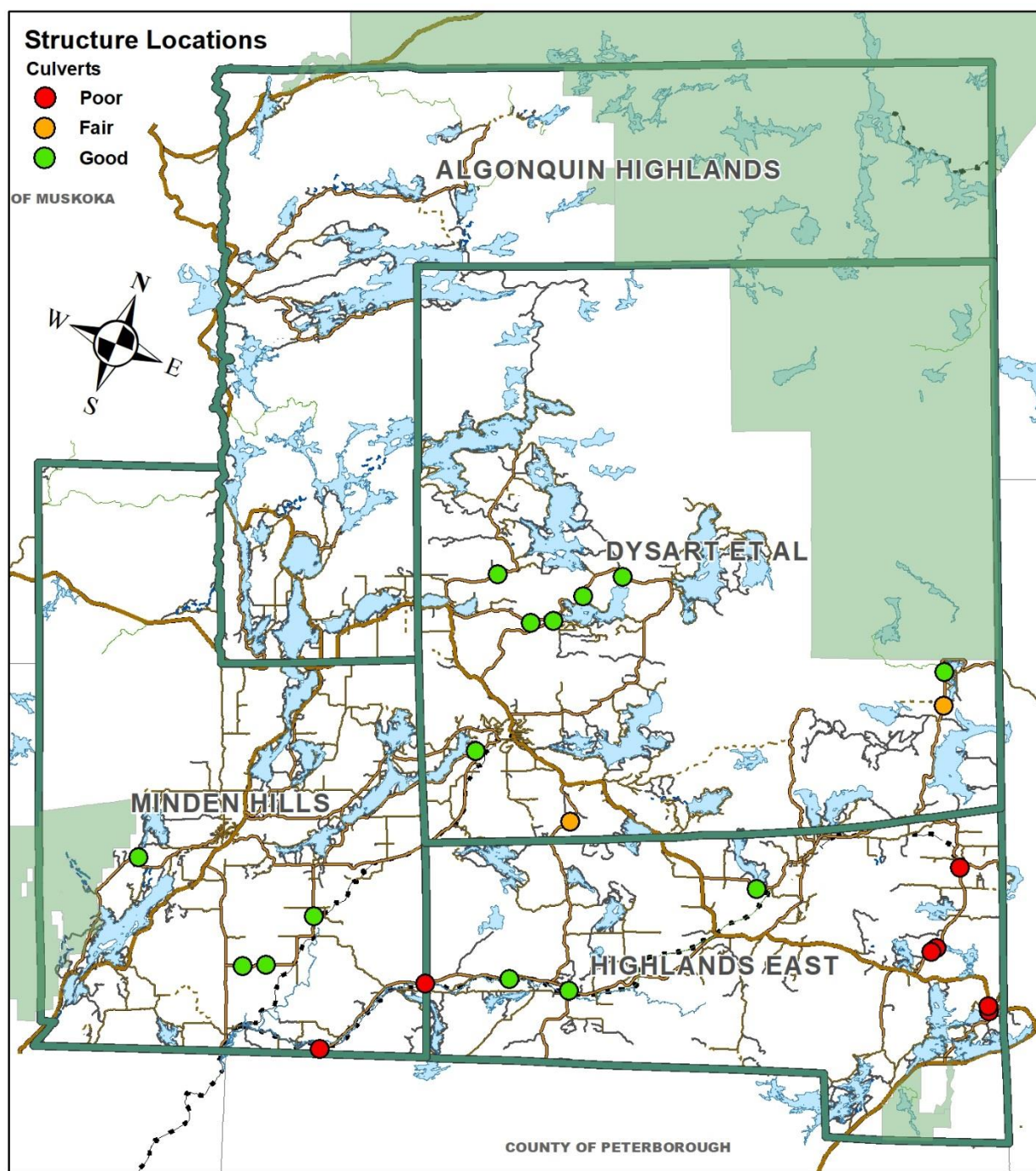


Figure 4.01.2 – Culvert Conditions (see larger fold out map in Appendices)

## 4.02 Structures – Level of Service

The Level of Service for County bridges is determined through the Bridge Sufficiency Index (BSI) as mentioned earlier. This value is a rating derived from various factors and analyses the bridge's servicing capacity. This allows the County to visualize a structure's ability to perform and continue to perform over a period of time. These rating factors include traffic volumes, design standards, pedestrian traffic, and the effect on the medium in which the structure is spanning, to name a few. The BSI is a measure of a structure's

ability to serve the environment that surrounds it and is a good indicator of community level of service (the County has adopted the same table for BSI as Table 4.01.1) while, as noted previously BCI is used as the County's gauge for technical level of service.

The County aims to have all bridges and culverts at a BSI of 70 or more (Good)

Bridge Community Level of Service	
Poor	(7 of 15)
Fair	(3 of 15)
Good	(5 of 15)
Overall Rating ( <i>Averaged BSI Ratings</i> )	Fair (65)

*\*Table 4.02.1- Bridge Community Level of Service*

Culvert Community Level of Service	
Poor	7 of 23
Fair	3 of 23
Good	13 of 23
Overall Rating ( <i>Averaged BSI Ratings</i> )	Fair (68)

*\*Table 4.02.2 – Culvert Community Level of Service*

The combined BSI rating of bridges and culverts is 67, or Fair. While BSI is utilized in the tables to represent Community Level of Service, the BCI representing Technical Level of Service is 69, or Fair. Given the rural nature of the County's road network, BSI and BCI track very closely.

The overall condition of the County's structures is not expected to improve for a number of years unless significant funding is received for structure rehabilitation. Many of the County's structures are of the same vintage (being constructed by the MTO in the 1960s – 1970s) meaning that there is a surge of rehabilitation needs developing. Evidence of complications in keeping pace with structure needs and improving level of service can be found in section 4.06.

### 4.03 Structures – Lifecycle Management Strategy

The appropriate maintenance or rehabilitation schedule must be applied throughout an asset's lifecycle in order to cost effectively maintain the County's bridges and culverts at the established service levels. Four maintenance strategies are required in order to provide sustainable management of County bridges and culverts.

Strategy	Lifecycle Activity	Trigger
Routine Maintenance	Planned routine maintenance includes inspections, monitoring, sweeping, cleaning clogged drains, etc. These activities increase the condition of the bridge or culvert and extend its useful service life by identifying potential issues before they become a problem.	Ongoing
Preventative Maintenance	Planned activities such as repairs to cracked or spalled concrete, damaged expansion joints, bent or damaged railings, etc. These activities increase the condition of the bridge or culvert and extend its useful service life.	BCI=>70
Rehabilitation	Activities such as reinforcement of structural elements, deck replacement, etc. These activities increase the condition of the bridge or culvert and extend its useful service life.	BCI=50-69
Replacement	Planned activities such as complete replacement of the bridge or culvert. Typically occurring at the end of the useful service life and also when required due to increased traffic volumes or road widening.	BCI<50

*Table 4.03.1 – Structures – Lifecycle Management Strategies*

The County has adopted a best practice preventive maintenance asset management strategy for its structures while continuing to fix the worst first for safety reasons. This will allow the County to get the most out of its 38 structures by eliminating issues before they become problems. Suggested maintenance procedures that should be performed in the next ten years have been identified by the structure inspection reports.

Preventative maintenance includes simple measures such as washing a bridge and coating steel components to keep corrosion at a minimum or more involved procedures like waterproofing and repaving the deck surface to keep water from penetrating the concrete. Failing to perform the lower cost preventative maintenance measures will result in larger problems such as the deterioration of the concrete or steel structure. This type of maintenance is often done in conjunction with other road repairs in order to be more efficient.

In addition, other factors are considered when prioritizing maintenance. These include: traffic volume; load capacity restrictions; accident history; flooding or ice problems; planned maintenance on the road network.

#### 4.04 Structures – Risk Analysis

The County visually inspects their structures to the standards provided in the Ontario Structure Inspection Manual (OSIM) as per O.Reg 472/10. The engineering consultant surveyed the condition of County structures in August 2018. Structures are inspected every two years.

#### 4.05 Structures – Estimated Costs to Service Growth

The County's Official Plan is projecting a population increase of approximately 4,500 by 2036. Within that growth, the County's Official Plan also sets a target for creating approximately 1,700 new jobs. These jobs would be related to new commercial/industrial development. This development is not expected to impact service growth in Structures.

Climate change is expected to have an impact on future structure service growth. Increased flood risks will cause the costs of structures to increase in the future as culverts and bridges are increased in size and height in order to accommodate increased water-flow. Otherwise, minimal service growth is expected in Structures within the next 10 years.

#### 4.06 Structures – Financial Strategy and Sustainability

##### Bridges

The following table shows that 54% of the expected bridge need costs in the next ten years fall within five years.

It is expected that, if all suggested procedures are undertaken, longer term expenditures will drop off somewhat due to the significant reduction of the current infrastructure deficit. New bridges have a minimum design life of 75 years.

Structure Name	Structure ID	Required Investment (in 000's)			
		2020	2021 to 2024	2025 to 2029	Total
Drag River Bridge	001137	\$ 22	\$ 102	\$ 640	\$ 764
Eagle Lake Road Bridge	006063	120	135		255
West Guilford Bridge	007002	2	140	40	182
Hollow River Bridge	008019		95		95
Paudash Lake Bridge	009017		80	120	200
York River Bridge	010140	120	110	10	240
Hawk Lake Road Bridge	013034	1	1,585		1,586
Ingoldsby Bridge	018011		65	140	205
Horseshoe Lake Bridge	020077		40	1,500	1,540
Allsaw Bridge	021128	5		20	25

Head Lake Bridge	021217	3		10	<b>13</b>
Dorset Bridge	039011		2		<b>2</b>
Furnace Falls Bridge	503069		30	40	<b>70</b>
Gooderham Bridge	507001	5	100	52	<b>157</b>
Dark Lake Bridge	648080	25	245		<b>270</b>
<b>TOTAL</b>		<b>\$ 303</b>	<b>\$ 2,729</b>	<b>\$ 2,572</b>	<b>\$ 5,604</b>

Table 4.06.1- Required 10 year Investment in Bridges

## Rail Trail Bridges

		Required Investment (in 000's)			
Structure Name	Structure ID	2020	2021 to 2024	2025 to 2029	Total
Howland Junction Trestle	RT-1	\$ 0	\$ 0	\$ 0	\$ 0
Gelert Railway Bridge	RT-2		50	100	<b>150</b>
<b>TOTAL</b>		<b>\$ 0</b>	<b>\$ 50</b>	<b>\$ 100</b>	<b>\$ 150</b>

Table 4.06.2 – Required 10 Year Investment in Rail Trail Bridges

\*Rail Trail bridges are shown here for illustration purposes only as they have been incorporated in the County's OSIM inspections. These are not included in any condition or financial calculations under structures.

A future update to this asset management plan will incorporate the Rail Trail.

## Culverts

The following table shows that 49% of the expected culvert need costs in the next ten years fall within 5 years.

Similar to bridges, it is expected that longer term expenditures will decrease on average if the current infrastructure deficit can be significantly reduced in the next ten years. Culverts have a minimum design life of 50 years (dependant on material type and environment).

		Required Investment (in 000's)			
Structure Name	Structure ID	2020	2021 to 2024	2025 to 2029	Total
Kendrick Creek Culvert	001010	\$ 3	\$ 1		\$ 4
Sinclair Pond Culvert	001020				<b>0</b>
Gelert Culvert	001095				<b>0</b>
Haliburton Culvert	001298				<b>0</b>
Little Bob Lake Culvert	002108	5	5		<b>10</b>
Bluehawk Lake Culvert	003135		25	300	<b>325</b>
Esson Lake Culvert	004042	20			<b>20</b>
Eagle Lake Road Culvert	006060				<b>0</b>

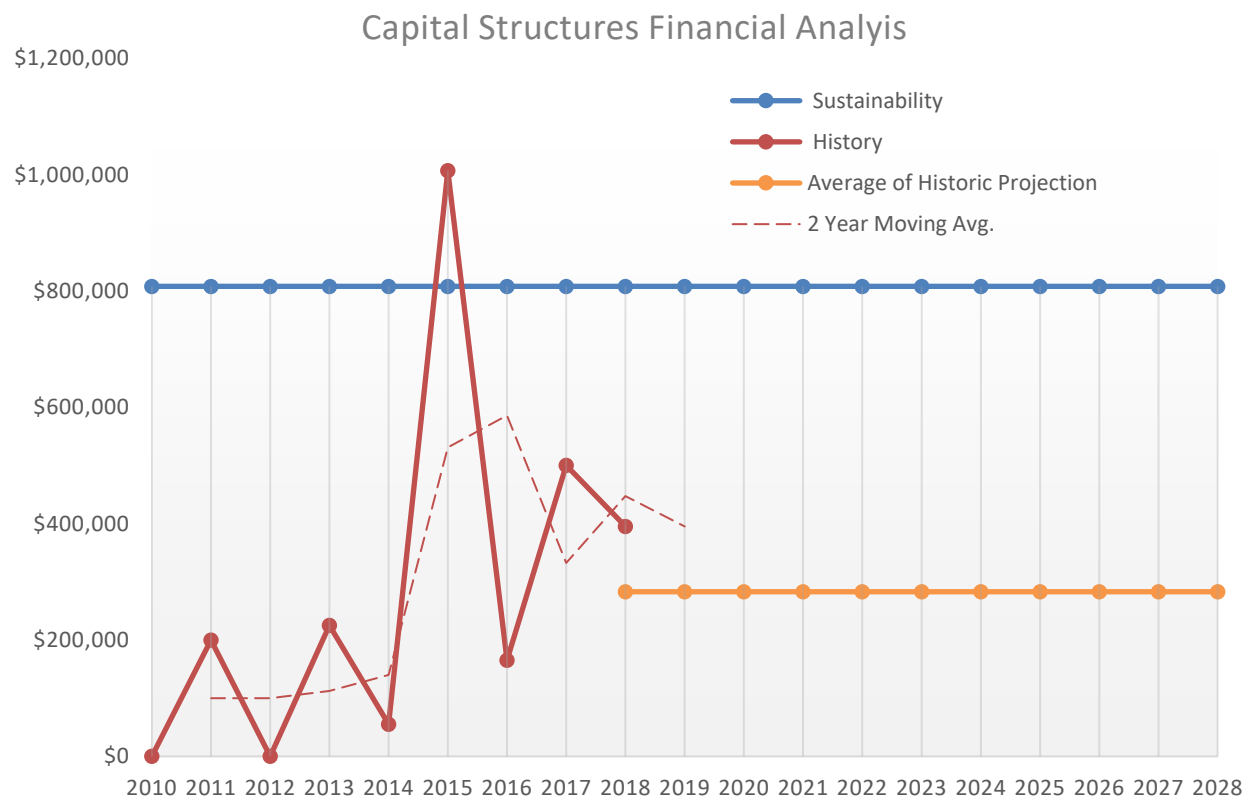
Pivot Lake Culvert	007063			50	<b>50</b>
McGillvary Road Culvert	009061			300	<b>300</b>
Inlet Bay Culvert	009064			300	<b>300</b>
Fishtail Lake Road Culvert	010094			315	<b>315</b>
Kingscote Road Culvert	010119				<b>0</b>
Haliburton Lake Road Culvert	014083	10			<b>10</b>
Parson's Road Culvert	014119		2		<b>2</b>
Camp Northland Culvert	014160	2	4		<b>6</b>
County Road 503 Box Culvert	503054		500		<b>500</b>
Bark Creek Culvert	503150		25		<b>25</b>
County Road 503 Culvert	503214	25			<b>25</b>
County Road 503 Twin Culvert	503257		5		<b>5</b>
Hudson Creek Culvert	648225	20	20		<b>40</b>
County Road 648 Culvert	648284	50	40		<b>90</b>
Lower Cup Lake Culvert	648287		450		<b>450</b>
<b>TOTAL</b>		<b>\$ 135</b>	<b>\$ 1,077</b>	<b>\$ 1,265</b>	<b>\$2,477</b>

Table 4.06.3 – Required 10 Year Investment in Culverts

## Financial Sustainability

The County is working towards building financial sustainability into the budget process.

The following graph shows the comparison between historic expenditures for structures, the required expenditures moving forward, and sustainability.



Notes:

- a. **Sustainability** is the required spending by the County as determined by the engineering consultant.
- b. **History** is the historic spending dating back to 2010.
- c. **Average Historic Projection** indicates trend based on historic capital spending.
- d. **Moving Average of History** trend line illustrates the County's progression towards meeting the sustainability requirements.

The expected ten year capital needs for structures for the County are:

Bridges	\$5,754,000
Culverts	<u>\$2,477,000</u>
Total	\$8,080,000

This is a significant increase from the 2016 OSIM inspections due to two structures that escalated from rehabilitation to replacement when examined independently and in depth.

Therefore, an annual budget amount of \$808,000/year is required. Given the preliminary nature of cost estimates, other variables associated with future material costs and hydraulic capacity related to climate change, the average yearly sustainability cost should be treated as an absolute minimum.

By addressing maintenance concerns as they arise, this will help to avoid premature repairs to the structure and ultimately assist in extending the useful life of the structures.

### Current Available Funding

Since no OCIF (application based) funding was received for 2018, all structures are funded from reserve and levy.

### Current Budget Capital Spend and Sustainability

The 2019 approved capital budget included a capital investment for Bridges of \$2,159,331 and Culverts of \$135,000. The County continues to work towards building sustainability into the budget for Structures. Once the level of funding required to meet sustainability is reached in each capital asset category any unspent funds will flow to the reserve for that asset type until needed in the future.

### Federal Gas Tax Funding

The Federal Gas Tax Fund funding received by the County is utilized for investment in the County roads network.

### Ontario Community Infrastructure Funding (OCIF) – Formula Base

The Ontario Community Infrastructure Fund (OCIF) funding received by the County is utilized for investment in the County roads network. As of March 2019, the OCIF program has been discontinued and replaced with new Investing in Canada Infrastructure Program (ICIP) funding.

## **OCIF – Application Base**

Historically, the County utilized OCIF Application Base funding for investment in roads, bridges and culverts. Eligibility varied year to year depending on previous amounts received. As of March 2019, the OCIF program has been discontinued in 2019 and replaced with new ICIP funding.

## **Ontario Municipal Partnership Funding (OMPF)**

The Ontario Municipal Partnership Funding continues to be reduced each year for the County. It is anticipated that 2019 will be the last year that these funds are received from the Provincial government. Although these funds have not specifically been directed towards investment in the County roads network, they do reduce the amount of levy required each year and assist in meeting the County's capital needs.

## **Reserves**

The County has an internally designated bridge reserve for bridge and culvert capital of \$542,494 as at December 31, 2018. In addition, the County also has an internally designated rail trail capital reserve of \$10,000 as at December 31, 2018. In the event that a contingency occurs that requires unbudgeted funds, funding will be provided through reallocation of current year budget amounts or directly from the Working Capital Reserve. As at December 31, 2018 the Working Capital Reserve contained \$1,641,542. The Working Capital Reserve is not internally designated. It is a general reserve to be used to cover unexpected situations and requires approval from Council. Best practice is to have a balance in the Working Capital Reserve of 2 months of operating expenses.

## **Debt**

The County will consider debt if necessary to reduce or eliminate any gap in infrastructure needs. An annual debt repayment limit is set by the Ministry of Municipal Affairs under O.Reg. 403/02. The County has significant unutilized debt capacity.

## **Other Funding**

The County will continue to apply for all appropriate funding opportunities.

## **5.00 Buildings and Building Equipment**

### **5.01 Buildings and Building Equipment – Asset Inventory and Current Condition**

As at December 31, 2018, the County had buildings with a net book value of \$2,471,726. The original cost of those buildings was \$3,567,105. Buildings have been amortized over 40 years while building equipment has been amortized over 10 years.

Data has been collected using a report generated by Jardine Lloyd Thompson and PSAB documents to indicate the replacement costs of County owned Buildings.

At the current time, the County has little data collected in regards to general maintenance on buildings (roofing, windows, carpeting, heating and cooling systems etc.) In the future, facilities capital planning will include all of these items to help prepare the County for future costs in maintaining the County's Buildings. The County has initiated a Climate Change plan that includes energy efficiency improvements and capital spend requirements. The County, in compliance with O.Reg 507/18, will be publishing its Energy Conservation and Demand Management Plan.

<b>Asset</b>	<b>Quantity</b>	<b>Replacement Value (000's)</b>
11 Newcastle Street - Administration	1	\$ 2,000
12 Newcastle Street – Old Admin Office	1	\$ 800
Paramedic Services Buildings	3	\$ 2,852
Operations Buildings	9	\$ 2,935
<b>Total</b>	<b>14</b>	<b>\$ 8,587</b>

*Table 5.01.1 – Building Replacement Values*

*\*Replacement values determined by AON in 2018 and have been subjected to the consumer price index.*

### **5.02 Buildings – Level of Service**

Level of Service is determined by ability for buildings to effectively house the County's staff.

Staff have identified additional facility requirements at the Ingoldsby patrol yard. With this facility being the hub for most County maintenance operations (including vehicle maintenance facilities) and a hub for the County's emergency management program. The County is currently investigating the feasibility of expanding the facility at this location. No financial contributions have been allocated at this time.

The County is aware of the future need for salt/sand domes in the Public Works Yards. It should be noted that there are no grants available to repair these deficiencies and that the anticipated work should be budgeted for by building reserves.

Asset	Quantity	Level of Service	Reason for Level
11 Newcastle Street	1	Fair	Near capacity
12 Newcastle Street	1	Good	Serves purpose
Paramedic Services Buildings	3	Good	Serve purposes
Operations Buildings	7	Good	Serve purposes
- Ingoldsby Garage	1	Poor	Crowding of operations staff and inadequate space for vehicle maintenance.
- Ingoldsby Salt Storage Shed	1	Poor	Inadequate salt storage capacity

*Table 5.02.1 – Building – Inventory and Condition Listing (May 2019)*

### **5.03 Buildings – Lifecycle Management Strategy**

The County does not currently have a life cycle management strategy for maintenance or replacement of County owned facilities.

Maintenance of County facilities is on an as required basis and is monitored by staff. Upcoming needs are identified and included in budget as required.

As at May 2019, the current list of upcoming needs includes:

- i. A new roof for 12 Newcastle Street, Minden within the next few years (estimated cost \$30,000);
- ii. Implementation of salt management strategies at patrol facilities; and
- iii. Additional garage space at the Ingoldsby patrol yard.

### **5.04 Buildings – Risk Analysis**

The County is planning on engaging a consultant in 2019 to undertake a survey of County owned facilities. This will include the identification of current and forecast needs, current valuation and replacement costs and will allow the County to determine levels of risk and upgrade or replacement requirements as the County's staffing and operation requirements change.

### **5.05 Buildings – Estimated Costs to Service Growth**

There is potential for growth in the next 10 years. As the County continues to add new services more staff may be required. The current administrative office at 11 Newcastle Street is at capacity. Potential exists, for space to be utilized for administrative office space at 12 Newcastle Street.

Growth at the County level could be affected should the spheres of jurisdiction between the County, Local and/or Provincial level be shifted. The County could gain a significant number of facilities along with a potential increase in employee numbers at its administrative office at 11 Newcastle Street.

## **5.06 Buildings – Financial Strategy and Sustainability**

Throughout the planned facilities survey, financial requirements will be acquired and a life cycle management analysis will be implemented and a financial sustainability strategy will be determined.

Currently, many County facilities are fully or nearly amortized and in relatively good condition. Until the requirements of the County exceed that of the facilities, it is most sustainable to continue to utilize and maintain these facilities. The Paramedic Services facilities are more modern and hold considerable residual value.

### **Current Budget Capital Spend and Sustainability**

The 2019 approved capital budget included a capital investment for Buildings and Building Equipment of \$13,000. The County continues to work towards building sustainability into the budget for Buildings and Building Equipment. Once the level of funding required to meet sustainability is reached in each capital asset category any unspent funds will flow to the reserve for that asset type until needed in the future.

### **Reserves**

The County has an internally designated building reserve for Buildings and Building Equipment capital (including 11 Newcastle Street, 12 Newcastle Street) and Ambulance bases) of \$144,977 as at December 31, 2018. In addition, the County also has an internally designated Patrol Yard capital reserve of \$108,820 as at December 31, 2018. In the event that a contingency occurs that requires unbudgeted funds, funding will be provided through reallocation of current year budget amounts or directly from the Working Capital Reserve. As at December 31, 2018 the Working Capital Reserve contained \$1,641,542. The Working Capital Reserve is not internally designated. It is a general reserve to be used to cover unexpected situations and requires approval from Council. Best practice is to have a balance in the Working Capital Reserve of 2 months of operating expenses.

### **Debt**

The County will consider debt if necessary to reduce or eliminate any gap in infrastructure needs. Debt is ideally suited to the purchase of building capital due to its high cost and long amortization period. An annual debt repayment limit is set by the Ministry of Municipal Affairs under O.Reg. 403/02. The County has significant unutilized debt capacity.

### **Current Budgeted Debt Payment**

Every year's budget includes a debt repayment amount of approximately \$60,000 for the capital loan for the Minden EMS Base. The final payment for that loan will occur in 2035.

### **Other Funding**

The County will continue to apply for all appropriate funding opportunities.

## **6.00 Social Housing**

The City of Kawartha Lakes (CKL) is the Municipal Service Manager for social housing for the County of Haliburton and the City of Kawartha Lakes as mandated by the province of Ontario through the Housing Service Act. The County and the CKL actively collaborate in order to ensure that housing and homelessness is addressed in the County.

As the Municipal Service manager, the CKL is responsible for the delivery of affordable housing, homelessness and support programs and for the ongoing financial support and regulation of existing social housing providers and their housing units. An agreement between the County and the CKL outlines how the cost of ongoing financial support is shared. Operating support costs are shared on a percentage basis while capital costs are provided by the County for housing units in the County.

The CKL has engaged the Housing Services Corporation to complete an Asset Management Plan (AMP) for its social housing portfolio in accordance with regulatory requirements. The AMP segregates housing assets between the County and CKL.

The AMP is further broken down to identify Kawartha Lakes-Haliburton Housing Corporation (KLHHC) and the other non-profit housing providers. CKL is the sole shareholder of KLHHC which is established under the Business Corporations Act. KLHHC is governed by a Board of Directors which includes three municipal Councilors (2 from CKL and 1 from the County of Haliburton). KLHHC purchases its staffing resources from the CKL. The CKL's Administrator/Manager of Housing is deemed to be the Chief Executive Officer and Secretary of KLHHC and the CKL Treasurer is deemed to be the Treasurer of KLHHC. As of August 2018, the KLHHC portfolio consisted of 701 units owned and managed by KLHHC.

The other non-profit housing providers are independent corporations established through the Not-for-Profit Corporations Act. Each has its own Board of Directors and staff.

Although the City of Kawartha Lakes manages these buildings, the County is responsible for funding all capital builds and repairs for buildings operated by CKL within the County of Haliburton. An annual amount has been included in the budget to ensure funding for these projects exists when payment is due. This amount will need to be increased in future years in order to attain sustainability. These payments are considered to be transfers to others. The County budgets for any capital expenditures required for Social Housing through transfers to and from reserves. Social Housing projects typically receive funding from other levels of government while also requiring a local contribution.

### **6.01 Social Housing – Asset Inventory and Current Condition**

As of 2018, KLHHC and other providers operated 291 Social Housing units in the County of Haliburton with an estimated replacement value of \$49,557,582. The average age of Social Housing stock is 21.25 years of age for buildings owned by the Kawartha Lakes Housing Corporation and 27.13 years of age for buildings owned by other non-profit providers.

The Age of a building helps predict the remaining useful life of an asset. The typical lifespan of a building is dependent on its construction and maintenance. For the purpose of this AMO it is assumed that single detached, townhouses and low-rise apartment timber structures have a lifespan of 60 years and low-rise concrete structures have a lifespan of 80 years.

## Social Housing Asset Inventory

The asset replacement cost is the actual cost to replace an asset in today's dollar. Replacement cost is helpful in determining when repairing an asset is no longer a cost efficient practice and replacement is more suitable. The replacement values below use RSMeans, which provides accurate and up-to-date cost information in order to estimate the cost for both new building construction and renovation projects. This method is based on multiplying a unit rate by the gross area of the asset.

Kawartha Lakes Housing Corporation – Assets Located in the County of Haliburton						
Facility Address	Town	# of Units	Asset Type	Construction Year	Age	Replacement Cost
610 Mountain St	Haliburton	32	Low rise apartment	1978	40	\$4,963,043
4977 County Road 21	Haliburton	24	Low rise apartment	2014	4	\$3,776,640
6 Parkside St	Minden	20	Low rise apartment	1978	40	\$2,938,856
57 Parkside St	Minden	12	Low rise apartment	2017	1	\$1,371,449
<b>Total</b>		<b>88</b>			<b>Avg 21.25</b>	<b>\$13,049,718</b>

Table 6.01.1 – KLHHC Provided – County Social Housing Inventory

Non-Profit Housing Providers – Assets Located in the County of Haliburton						
Facility Address	Town	# of Units	Asset Type	Construction year	Age	Replacement Cost
<b>Haliburton Community Housing Corporation</b>						
1 Victoria St	Haliburton	50	Low rise apartment	1987	31	\$8,160,203
13 Independence St	Haliburton	45	Low rise apartment	1991	27	\$6,721,040
<b>Staanworth Non-Profit</b>						
1 to 20 Floralan Crt	Minden	20	Townhouse	1992	26	\$5,287,924
30 Prentice St	Minden	22	Low rise apartment	1984	34	\$4,208,558
44 Parkside St	Minden	32	Low rise apartment	1989	29	\$4,992,493
<b>Monmouth Township Non-Profit Housing Corporation</b>						

2117 Loop Road	Wilberforce	6	Townhouse	1995	23	\$1,083,366
2117 Loop Road	Wilberforce	24	Low rise apartment	1995	23	\$5,062,162
2117 Loop Road	Wilberforce	4	Townhouse	1994	24	\$992,118
<b>Total</b>		<b>203</b>			<b>Avg 27.13</b>	<b>\$36,507,864</b>

Table 6.01.2 – Non-Profit Provided – County Social Housing Inventory

## Social Housing Condition

The rating system, the grading system and the grading system framework were developed by the CKL team and aligned with the CKL 2017 AMP.

Social Housing Buildings Rating						
Asset Category	Capacity	Condition	Finance	Reliability	2018	Trend
KLHHC Assets	B	B-	B	B	B	➡
Non-Profit Provider Assets	B	C-	C-	B	B	➡

Table 6.01.3 Social Housing – Building Rating

Social Housing Rating System	
Rating	Score
Very Poor	F – Asset unfit and is near end of expected service life. Wide spread deterioration.
Poor	D – Asset at risk of affecting service, approaching end of life, conditions below standard and shows significant signs of deterioration.
Fair	C – Asset requires monitoring and attention, some elements show signs of deterioration.
Good	B – Asset approaching mid-stage and requires funding.
Excellent	A – Asset approaching mid-stage and requires funding.
Overall Rating	Good B-

Table 6.01.4 – Social Housing – Rating System (adopted from Canadian Infrastructure Report Card)

The Facility Condition Index (FCI) is an industry standard asset management tool which measures the structures condition at a specific point in time. FCI is obtained by aggregating the total cost of any needed or outstanding repairs, renewals or upgrades requirements for a building compared to the current replacement value of the building. Land value is not considered when evaluating FCI.

The lower the FCI, the better the condition of the building. As FCI increases, assets will experience increased risk of component failure, increased maintenance and operation costs, and greater negative impacts on residents and staff.

Asset Category	FCI Index
KLHHC Assets	0%
Non-Profit Provider Assets	6%

Table 6.01.5 – Social Housing – Facility Condition

Facility Condition Index (FCI)	
FCI = Unfunded Renewal and Repair Costs/Asset Replacement	
Critical	FCI > 30%
Poor	FCI > 10% to 30%
Fair	FCI > 5% to 10%
Good	FCI 0% to 5%

Table 6.01.6 – Social Housing – Facility Condition Index

The Grading System evaluates Capacity, Condition, Finance and Reliability which are then weighted to arrive at an overall Grading System Score.

Social Housing Grading System Scores					
Asset Category	Weights	KLHHC Assets (Raw Score)	KLHHC Assets (Weighted Score)	Non-Profit Provider Assets (Raw Score)	Non-Profit Provider Assets (Weighted Score)
Capacity	.15	7.00	1.05	7.00	1.05
Condition	.3	7.93	2.38	6.11	1.83
Finance	.2	7.63	1.53	6.20	1.24
Reliability	.35	7.38	2.58	7.28	2.55
Total Portfolio Score			7.54		6.67

Table 6.01.7 – Social Housing – Grading System Portfolio Scores

Grading System		
Grade	Rating	Description
F	Very Poor	< 50%
D	Poor	50% to 59%
C	Fair	60% to 69%
B	Good	70% to 79%
A	Excellent	80% to 100%

Table 6.01.8 – Social Housing – Grading System

Social Housing Grading System Framework			
Criteria	Description	Measure	Indicator
<b>Capacity</b>	Capacity to meet demand is the ability to ensure that supply meets current and future demand.	Capacity vs Demand	Vacancy Rate
			Service level Agreement
			Unit move in time
			Waitlist (available supply to meet demand)
<b>Condition</b>	Physical condition of the infrastructure, its age, performance and maintenance.	Building condition	FCI
			Condition Grade (Asset Planner)
		Maintenance	Preventative Maintenance
			Deferred Maintenance
<b>Finance</b>	Current level of funding of the infrastructure category compared to the estimated funding need.	Short Term Financial Plan	10 year renewal needs vs budget
		Long Term Financial Plan	Renewal needs equal revenue
<b>Reliability</b>	A measure of the ability to meet requirements for quality, standards, service interruptions, statutory compliance, functionality, safety and security.	Compliance with Regulatory Requirements	Building Code
			AODA
			Legislative requirements (TSSA, ESA, OCWA)
			Fire Code
		Service Redundancy	Business Continuity Plan Facility Standby Power
		Fire Safety and Security	Fire Safety
			Sprinklers
			Security Equipment
		Functionality	Customer Satisfaction
			Facility Amenities
			Energy Usage

Table 6.01.9 – Social Housing Measurement Framework

The KLHHC housing assets scores are related to the following:

- i. Capacity Indicators:
  - a. Unit move in time is 8 days 75% of the time;
  - b. Waitlists are growing fast, the demand is much higher than the supply;
  - c. Meets Service Level Agreement; and
  - d. Vacancy rates are low.
- ii. Condition indicators:
  - a. Overall portfolio FCI is 0% (Good) and increasing to 22.63% (Poor) in 30 years;
  - b. Preventative maintenance is conducted regularly; and
  - c. Work orders are addressed in 1 to 3 days.
- iii. Finance Indicators:
  - a. 10 year needs are approximately \$1.05M; and
  - b. Overall the portfolio is well funded with minor shortfall the first 10 years of the study; in the following 15 years the shortfall increases rapidly.
- iv. Reliability Indicators:
  - a. Legislative requirements are met including ESA, TSSA, OCWA, Fire Code and asbestos management plans;
  - b. Redundancy – no back up power;
  - c. All buildings have security cameras and emergency lighting;
  - d. KLHHC has a business continuity plan; and
  - e. Customer satisfaction is higher than 75%.

The Non-Profit Providers housing assets scores are related to the following:

- i. Capacity Indicators:
  - a. Waitlists are growing fast, the demand is much higher than the supply;
  - b. Meets Service Level Agreement; and
  - c. Vacancy rates are low.
- ii. Condition indicators:
  - a. Overall portfolio FCI is 6% (Fair) and increasing to 32.85% (Critical) in 30 years;
- iii. Finance Indicators:
  - a. 10 year needs are approximately \$5.09M; and
  - b. Overall the portfolio is not adequately funded with major.
- iv. Reliability Indicators:
  - a. Legislative requirements are met including ESA, TSSA, OCWA, Fire Code and asbestos management plans; and
  - b. KLH has an emergency response plan.

## 6.02 Social Housing – Level of Service

Social Housing level of service is determined in accordance with the legislated requirements, corporate documents and strategic plans, available funding and needs.

As of 2007, KLHHC adopted the requirements of Ontario Regulation 516/06 enacted under the Residential Tenancies Act, 2006 for all Social Housing units.

As per the Rent Geared to Income (RGI) agreement (a service level agreement with the province), the City of Kawartha Lakes and Haliburton County must provide 871 RGI units. Currently, the CKL and Haliburton County provide 871 RGI units out of 912 available housing units.

KLHHC conducts a Customer Satisfaction Survey every two years. Consistently, customer satisfaction has been greater than 75%.

The current FCI index is 0% for KLHHC stock and 6% for Non-Profit stock. The long term goal is to keep the FCI index below 10% on all housing stock.

### **6.03 Social Housing – Lifecycle Management**

Decisions on investing in Social Housing are based on an understanding of possible asset degradation and trading off capital investment, maintenance costs and risks (and probabilities) in order to optimize a capital investment decision. The optimization can be in terms of timing, the choice of asset, or both. These decisions are made by the Joint Administration Committee and approved by Council.

In order to do this effectively, the costs and risks of associated with an asset, and how they vary with time or usage, need to be understood. Life Cycle cost analysis is typically used to determine the interventions that represent the lowest Life Cycle costs.

Life Cycle Realization in practice means the combination of capital investment and maintenance processes to support decision making and maximize the value obtained from assets over the life of the asset.

For housing assets the mid-life overhaul occurs around 25 or 30 years as numerous building elements require renewal. Based on the average age of the Social Housing stock in the County, KLHHC stock (21.25 years) is due for its mid-life overhaul while Non-Profit provider stock (27.13) includes both stock that has had its mid-life overhaul and stock that has not had its mid-life overhaul.

In order to optimize operating costs, both KLHHC and Non-Profit providers have conducted numerous energy initiatives resulting in significant operational savings. These initiatives include window replacement, adding insulation to increase R-values, replacing mechanical equipment with high efficiency equipment, and installing heat control systems in all electrically heated buildings.

It is critical to strive for continual improvement of the assets. A key success of continual improvement in the asset lifecycle is ongoing monitoring and reporting.

To ensure that lifecycle activities are undertaken for the lowest cost to achieve the proposed levels of service, the following is recommended:

- i. Develop and document a risk-based capital prioritization system. A prioritization system will ensure the lifecycle activities are conducted when needs thus ensuring extending the life of the asset;

- ii. Continue to implement cost control techniques such as exploring efficiencies from bulk tendering and timing of tendering;
- iii. Continue with Building Condition Assessment program and update every five years and align with site review program;
- iv. Develop documentation clearly defining capital work and operating work. Consider including a minimum threshold for capital work.

#### **6.04 Social Housing – Risk Analysis**

A number of factors may have an impact on the level of service, and may impact on the County's and the CKL's ability to meet the proposed level of service. These include:

- i. Increased demand from wait list;
- ii. Building Codes, Municipal Bylaws and Regulatory changes which typically require additional funding to maintain the level of service;
- iii. Funding availability;
- iv. Continued investment in maintenance or risk of asset failure;
- v. Growth in municipality and change in demographics; and
- vi. Type of units in demand (currently, one bedroom units have the highest demand).

#### **6.05 Social Housing – Estimated Costs to Service Growth**

The County's Official Plan is projecting a population increase of approximately 4,500 by 2036. Within that growth, the County's Official Plan also sets a target for creating approximately 1,700 new jobs. The need for Social Housing is expected to increase in the next 10 years per the 10 Year Housing and Homelessness Plan. Current housing stock is insufficient to meet current demand. The City of Kawartha Lakes, in conjunction with the County of Haliburton, is in the process of updating its 10 year Housing and Homelessness Plan.

#### **6.06 Social Housing – Financial Strategy and Sustainability**

##### **Current Budget Capital Spend and Sustainability**

The 2019 approved capital budget included a capital investment for Social Housing of \$126,000. The County continues to work towards building sustainability into the budget for Social Housing. Once the level of funding required to meet sustainability is reached in each capital asset category any unspent funds will flow to the reserve for that asset type until needed in the future.

##### **Reserves**

The County has an internally designated Social Housing reserve for Social Housing capital of \$185,656 as at December 31, 2018. In the event that a contingency occurs that requires unbudgeted funds, funding will be provided through reallocation of current year budget amounts or directly from the Working Capital Reserve. As at December 31, 2018 the Working Capital Reserve contained \$1,641,542. The Working Capital Reserve is not internally designated. It is a general reserve to be used to cover unexpected situations

and requires approval from Council. Best practice is to have a balance in the Working Capital Reserve of 2 months of operating expenses.

### **Debt**

The County will consider debt if necessary to reduce or eliminate any gap in infrastructure needs in the Social Housing portfolio. An annual debt repayment limit is set by the Ministry of Municipal Affairs under O.Reg. 403/02. The County has significant unutilized debt capacity.

### **Other Funding**

The County will continue to apply for all appropriate funding opportunities.

## 7.00 Fleet

### 7.01 Fleet – Asset Inventory and Current Condition

As at December 31, 2018, the County had vehicles (licensed and unlicensed) excluding Land Ambulance Services Fleet with a net book value of \$1,542,137. The original cost of those vehicles was \$3,983,318. Vehicles have been amortized over 5 to 10 years depending on the vehicle.

The County fleet is comprised of licensed operations vehicles, unlicensed operations vehicles (heavy equipment), and operations trailers.

2019 - 2028 Fleet/Equipment Replacement Schedule (thousands \$)												
DESCRIPTION	YEAR	Km 000's	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
<b>PICK UP TRUCKS</b>												
Pickup	2008	248		31								
Pickup	2008	138			31.5							
Pickup	2009	264	30.5									
Pickup	2011	168		31								
Pickup	2011	118				32						
Pickup	2014	125						33				
Pickup	2014	99						33				
Pickup	2016	5							33.5			
Pickup	2016	12								34		
Pickup	2016	13								34		
Pickup	2018	0										35
Pickup	2018	0										35
Administration van	2013	98					32.5					
Total Pickups			30.5	62	31.5	32	32.5	66	33.5	68	0	70
<b>One Tons</b>												
One ton	2005	243										
Service Van	2006	351										
One ton	2008	208		95								
One ton	2008	218		95								
Service Van	2012	269										
One ton	2016	45								104		
One ton	2018	0										
Total One Tons			0	190	0	0	0	0	0	104	0	0
<b>TANDEM S</b>												

Tandem with Plow	2005	313	275									
Tandem with Plow	2007	337			283							
Tandem with Plow	2010	263				288						
Tandem with Plow	2010	220					292					
Tandem with Plow	2014	143						296				
Tandem with Plow	2015	123							301			
Tandem with Plow	2018	10									310	
Tandem with Plow	2018	1										314
<b>BACKHOES</b>												
4x4 tractor backhoe	2005		175									
4x4 tractor backhoe	2007					183						
4x4 tractor backhoe	2009								191			
<b>GRADER</b>												
Grader	2003						414					
<b>GRADALL</b>												
Gradall	2001	47			530							
<b>LOADERS</b>												
Loader	2006							247				
Loader	2003			237								
Loader	2015											
<b>TRAILERS</b>												
Power Broom	1999		14									
7 ton Tag-a-long	2007											
20 ton Tag-a-long	2010								30			
Hot Box Patching Trailer	2013											
Brushcutter Mower	2006											
Water tank	2007											
Sweeper	2008											
Asphalt Roller	2013											
Wood Chipper	2015											
Steamer	2016											
20 ton Tag-a-long	2016											
Engine repair to 2014 tandem	2019		11									
High Pressure Water Pump	New		6									
2 portable road closure sign trailers	New			11								

Total Fleet and Equipment		511.5	500	844.5	503	738.5	609	555.5	172	310	384
Average Annual Cost	520										

Table 7.01.1- Fleet/Equipment 10 Year Replacement Schedule in thousands of dollars

The condition of the fleet is considered Good. This is based on the ability for the fleet to perform as expected with minimal down time and repair costs.

## 7.02 Fleet – Level of Service

The County expects to maintain the current level of service, where all Fleet assets are maintained in Good or better condition, in the future.

All vehicles are monitored and repaired in house to reduce expenses, downtime, and expedite repairs. This results in a relatively low out of service time for fleet vehicles and thus downtime does not usually affect operations.

The County has two spare plow trucks, meaning there are two plow trucks not assigned to a specific plow route. This allows the swapping of trucks if an assigned truck is in for repair and winter maintenance is required.

Vehicles at the disposal of County staff serve the purposes that were intended. In the event that specialty equipment is required, it is rented if procurement of this vehicle cannot be justified.

## 7.03 Fleet – Lifecycle Management Strategy

The County has a replacement schedule for licensed, unlicensed and trailer vehicles as displayed in Table 7.01.1. The County has a replacement schedule that is designed to replace a unit when the repair costs outweigh the cost of purchasing a new unit. Currently, tandem plow trucks are replaced every 12-13 years old. The proposed replacement schedule above replaces tandem trucks every 9 years.

The appropriate maintenance or rehabilitation schedule must be applied throughout an asset's lifecycle in order to cost effectively maintain the County's fleet at the established service levels. Three maintenance strategies are required in order to provide sustainable management of County fleet.

Strategy	Lifecycle Activity	Trigger
Routine Maintenance	Planned routine maintenance includes cleaning, inspections, monitoring, condition assessments, scheduled general vehicle maintenance. These	Ongoing

	activities maintain the condition of the vehicle and extend its useful service life by identifying potential issues before they become a problem.	
Major Maintenance	Generally unplanned activities; however they can be anticipated and are generally accounted for within the County's annual operating budget. These activities include major repairs or replacement of major components i.e. brakes, tires, deer collision repairs.	As required.
Replacement	Vehicles are replaced on a regular basis based depending on the type of vehicle. Vehicles are evaluated on a yearly basis by the licenced mechanic to determine the viability of the vehicle for future use at the County.	95% to 100% of useful life

*Table 8.03.1 - Fleet – Lifecycle Management Strategies*

## 7.04 Fleet – Risk Analysis

Generally, as indicated by Table 7.04.1, pickups, one ton trucks and trailers are in the low risk category. This is due to the relative ease of utilizing a replacement vehicle should a breakdown occur.

Unlicensed vehicles are in the medium risk category. They are specialized equipment with specific uses. For example, should the grader or Gradall be out of commission, the entire operation ceases until repairs can be made.

Tandem plow trucks are in the high risk category. They are a primary vehicle in both summer and winter operations. In the winter, Provincial Minimum Maintenance Standards dictate response times that do not allow for a truck to be out of service. The

County is progressing to a 9 year replacement strategy while always maintaining two spare trucks.

<b>Risk Assessment for County Fleet</b>		
<b>Asset Type</b>	<b>Effect of Failure on County Operations</b>	<b>Effect of Failure on Community Level of Service</b>
Pickups, One Ton Trucks and Trailers	<b>Low</b> (Temporary Disruption)	<b>Low</b> (Small delay in road repairs)
Unlicensed Vehicles	<b>Medium</b> (Lengthy Disruption to County operations)	<b>Low</b> (Not likely to immediately affect the community)
Tandem Plow Trucks	<b>Medium</b> (May have delayed access to spare vehicle)	<b>High</b> (Major concern during winter storm event)

*Table 7.04.1 – Fleet – Risk Assessment (May 2018)*

## **7.05 Fleet – Estimated Costs to Service Growth**

The County's Official Plan is projecting a population increase of approximately 4,500 by 2036. Within that growth, the County's Official Plan also sets a target for creating approximately 1,700 new jobs.

No requirement for Fleet service growth is expected in the next 10 years.

## **7.06 Fleet – Financial Strategy and Sustainability**

As illustrated in Table 7.01.1, the County has determined that based on a ten year projection, a sustainable average annual spend of \$510,000 would be required. There are significant fluctuations from year to year. This includes the initiative to bring the tandem plow trucks into a 9 year replacement schedule.

The 10-year plan is updated every year. Prior to replacing the larger, more expensive equipment, a cost-benefit analysis is required to review the option to rent rather than purchase.

### **Current Budget Capital Spend and Sustainability**

The 2019 approved capital budget included a capital investment for Roads Fleet of \$525,000. The County continues to work towards building sustainability into the budget for Fleet. Once the level of funding required to meet sustainability is reached in each capital asset category any unspent funds will flow to the reserve for that asset type until needed in the future.

## **Reserves**

The County has an internally designated Machinery and Equipment reserve for vehicle, machinery and equipment capital of \$31,790 as at December 31, 2018. In the event that a contingency occurs that requires unbudgeted funds, funding will be provided through reallocation of current year budget amounts or directly from the Working Capital Reserve. As at December 31, 2018 the Working Capital Reserve contained \$1,641,542. The Working Capital Reserve is not internally designated. It is a general reserve to be used to cover unexpected situations and requires approval from Council. Best practice is to have a balance in the Working Capital Reserve of 2 months of operating expenses.

## **Debt**

The County will consider debt if necessary to reduce or eliminate any gap in infrastructure needs. An annual debt repayment limit is set by the Ministry of Municipal Affairs under O.Reg. 403/02. The County has significant unutilized debt capacity.

## **Other Funding**

The County will continue to apply for all appropriate funding opportunities.

## 8.00 Land Ambulance Fleet

### 8.01 Land Ambulance Fleet – Asset Inventory and Current Condition

50% of the funding for Land Ambulance Services is provided by the Ministry of Health and Long Term Care (MOHLTC).

As at December 31, 2018, the County had a Land Ambulance Fleet with a net book value of \$384,366. The original cost of those vehicles was \$1,073,959. Vehicles have been amortized over 4 to 5 years depending on whether they are an ambulance or another type of vehicle.

Currently, the County's Land Ambulance Services department maintains a fleet of seven ambulances and three support vehicles. An ambulance is replaced every year with two ambulances being replaced in the sixth year. This ensures that the ambulance fleet is always less than six years old and that vehicles are replaced before the odometer surpasses 300,000 km. Usage of ambulances is rotated in order to ensure usage is distributed evenly among vehicles. Support vehicles are considered for replacement at eight years of age depending on odometer reading and general condition.

		Required Investment (\$000's)									
Vehicle type and Make/Model	Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
<b>Ambulance 1 – 4275</b> Chev 3500 Crestline	2013	\$132						\$138			
<b>Ambulance 2 – 4279</b> Chev 3500 Crestline	2014		\$133						\$139		
<b>Ambulance 3 -4904</b> Ford E-350	2015			\$134						\$140	
<b>Ambulance 4 - 4917</b> Ford E-350	2016				\$135						\$141
<b>Ambulance 5 – 4916</b>	2016				\$135						\$141

Ford E-350											
<b>Ambulance 6 – 4930</b>  Ford E-350	2017					\$136					
<b>Ambulance 7 – 4929</b>  Ford E-350	2018						\$137				
<b>Support vehicle – 4397</b>  Chev Traverse AWD	2011		\$70								
<b>Support vehicle – 4377</b>  Ford Explorer 4WD	2012			\$71							
<b>Support vehicle – 4378</b>  Chev Silverado WT	2015						\$74				
<b>Total</b>		\$132	\$203	\$205	\$270	\$136	\$211	\$138	\$139	\$140	\$282
<b>Annual Average</b>	\$186										

Table 8.01.1 – Land Ambulance Fleet – 6 Year Replacement Schedule

## 8.02 Land Ambulance Fleet – Level of Service

Ambulances are available 24 hours a day to respond to emergency incidents. Emergency response driving places stress on vehicles that is beyond what is produced in regular commercial fleets. In order to achieve its mandate, Land Ambulance Services must maintain a fleet of ambulances and emergency response vehicles in a state of mechanical readiness and reliability. To this end, all Land Ambulance Services vehicles are maintained to the original equipment manufacturer preventative maintenance standards.

Ambulances and emergency response vehicles must meet strict Provincial standards.

The Ministry of Health and Long-Term Care Emergency Health Services Branch sets the specifications for ambulances and emergency response vehicles through the *Ontario Provincial Land Ambulance & Emergency Response Vehicle Standard*. Ambulances and emergency response vehicles in Ontario must be certified under this standard. The County's ambulances are recertified every three years in accordance with that standard.

### 8.03 Land Ambulance Fleet – Lifecycle Management Strategy

Ambulance and emergency response vehicle life-cycle practices have remained consistent with the Provincial pre-download practices.

The County implemented a replacement schedule for ambulances of every 72 months or 300,000km. This practice has resulted in a fleet of ambulances/emergency response vehicles that are dependable and costs for repairs and maintenance are predictable.

When an ambulance or emergency response vehicle reaches the point of decommissioning, it is repurposed for another use within the County (i.e., Roads department), sold at public auction or donated to a qualified donee in accordance with the County's Asset Disposal Policy.

The appropriate maintenance or rehabilitation schedule must be applied throughout an asset's lifecycle in order to cost effectively maintain the County's Land Ambulance Services fleet at the established service levels. Three maintenance strategies are required in order to provide sustainable management of County Land Ambulance Fleet.

Strategy	Lifecycle Activity	Trigger
Routine Maintenance	Planned routine maintenance includes cleaning, inspections, monitoring, condition assessments, scheduled general vehicle maintenance. These activities maintain the condition of the EMS vehicle and extend its useful service life by identifying potential issues before they become a problem.	Ongoing
Major Maintenance	Generally unplanned activities; however they can be anticipated and are	As required.

	generally accounted for within the County's annual operating budget. These activities include major repairs or replacement of major components i.e. brakes, tires, deer collision repairs.	
Replacement	Ambulance are replaced more frequently due to their rigorous workload and high reliability requirements.	60% to 100% of useful life

*Table 8.03.1 - Land Ambulance Fleet – Lifecycle Management Strategies*

#### **8.04 Land Ambulance Fleet – Risk Analysis**

Potential Risk	Potential Impact	Mitigation
Required funding not secured	Fleet deteriorates further.  Decrease in vehicle condition.	
Substantial increase in future maintenance and repair costs		

*Table 8.04.1 - Land Ambulance Fleet – Potential Risks*

#### **8.05 Land Ambulance Fleet – Estimated Costs to Service Growth**

The County's Official Plan is projecting a population increase of approximately 4,500 by 2036. Within that growth, the County's Official Plan also sets a target for creating approximately 1,700 new jobs. This will have an impact on the Land Ambulance Fleet service growth.

The County is currently on the cusp of requiring another ambulance. There is potential to add one additional ambulance in the near future at an estimated capital cost of \$140,000 and an estimated operating cost of approximately \$290,000. Land Ambulance Fleet – Financial Strategy and Sustainability

#### **Current Budget Capital Spend and Sustainability**

The 2019 approved capital budget included a capital investment for Land Ambulance Fleet of \$140,000. The County continues to work towards building sustainability into the budget for Land Ambulance Fleet. Once the level of funding required to meet sustainability is reached in each capital asset category any unspent funds will flow to the reserve for that asset type until needed in the future.

The County's capital budget includes \$140,000 per year for the replacement of one ambulance. In those years that an additional ambulance must be purchased (every sixth year) and in those years when Emergency Response Vehicles must be replaced additional funds are either added to the budget or funds are transferred from reserve. Going forward, \$25,000 will be transferred to reserve in order to accommodate the purchase of a second ambulance in the sixth year. Therefore, sustainability has been reached for Land Ambulance Fleet replacement.

The requirement for all Land Ambulance Services asset replacement has been evenly distributed over six years with increases in the sixth year for an additional ambulance and increases in the fourth year for replacement of Emergency Response vehicles.

Land Ambulance Services assets are funded through the tax levy and through amortization. The Land Ambulance Services is 50% funded by the Ministry of Health and Long Term Care (MOHLTC). As a result, the County receives 50 cents on the dollar for amortization of capital equipment including fleet. Amortization is a non-cash expense, therefore, this budget amount is fully utilized to pay for capital expenses in each year.

## **Reserves**

The County has an internally designated Land Ambulance Services reserve for Land Ambulance Services capital of \$201,420 as at December 31, 2018. In the event that a contingency occurs that requires unbudgeted funds, funding will be provided through reallocation of current year budget amounts or directly from the Working Capital Reserve. As at December 31, 2018 the Working Capital Reserve contained \$1,641,542. The Working Capital Reserve is not internally designated. It is a general reserve to be used to cover unexpected situations and requires approval from Council. Best practice is to have a balance in the Working Capital Reserve of 2 months of operating expenses.

## **Debt**

The County will consider debt if necessary to reduce or eliminate any gap in infrastructure needs. An annual debt repayment limit is set by the Ministry of Municipal Affairs under O.Reg. 403/02. The County has significant unutilized debt capacity.

## **Other Funding**

The County will continue to apply for all appropriate funding opportunities.

## 9.00 Land Ambulance Services Equipment

### 9.01 Land Ambulance Services Equipment – Asset Inventory and Current Condition

50% of the funding for Land Ambulance Services is provided by the Ministry of Health and Long Term Care (MOHLTC).

As at December 31, 2018, Land Ambulance Services had equipment with a net book value of \$273,078. The original cost of that equipment was \$546,118. Most of the Land Ambulance Services equipment has been amortized over 5 years with the exception of the N95 Fit Testing equipment being amortized over 10 years. Going forward, all equipment will be amortized over 5 years to enhance sustainability. Examples of Land Ambulance Services Equipment are: office furniture; defibrillators; computer equipment; stretchers; generator; water treatment system.

Year Purchased	Description	Cost	Net Book Value	Useful Life	Condition
2008	36KW Generator	\$ 20,914	1,046	10	In use
2009	4 Stretchers, 3 Stair Chairs	10,973	-	5	In use
2009	Water Treatment System	11,603	1,740	10	In use
2011	1 Stretcher, 1 Stair Chair	2,296	-	5	Fair
2012	2 Stretchers, 1 Stair Chair	9,300	-	5	Fair
2012	Panasonic Laptops	14,975	-	5	Fair
2013	Defibrillator Units including mounted Cabinets	2,931	293	5	Fair
2013	Timeclock	5,444	544	5	Fair
2013	1 Stretcher, 1 Stair Chair	3,657	366	5	Fair
2013	Panasonic Laptops	5,043	504	5	Fair
2014	4 Stretchers, 1 Stair Chair	24,034	7,210	5	Good
2014	Panasonic Laptops	7,711	2,313	5	Good

<b>2014</b>	Defibrillator Units including mounted Cabinets	11,324	3,397	5	Good
<b>2015</b>	Defibrillator Units including mounted Cabinets	4,857	2,429	5	Good
<b>2015</b>	Microsoft Surface Pro 3-tablets - Community Paramedicine	8,757	1,459	3	Good
<b>2015</b>	Monitoring Devices-Community Paramedicine	20,113	10,057	5	Good
<b>2015</b>	Nocospray System	6,218	3,109	5	Good
<b>2015</b>	N95 Fit Testing Machine	17,366	13,024	10	Good
<b>2015</b>	Panasonic Laptops	5,168	2,584	5	Good
<b>2015</b>	2 Stretchers, 1 Stair Chair	9,772	4,886	5	Good
<b>2016</b>	AVL Installation X2	1,561	1,093	5	Excellent
<b>2016</b>	Computer - EMS	6,628	4,639	5	Excellent
<b>2016</b>	Scoops	9,875	6,913	5	Excellent
<b>2016</b>	1 Stair Chair	2,422	1,695	5	Excellent
<b>2016</b>	1 Stretcher	3,416	2,391	5	Excellent
<b>2017</b>	Stryker defibrillator lease	208,847	187,962	5	Excellent
<b>2017</b>	Laptop	5,651	5,086	5	Excellent
<b>Total</b>		<b>\$ 440,856</b>	<b>\$ 264,740</b>		

Table 9.01.1 – Land Ambulance Services Equipment – Inventory and Condition Listing

Land Ambulance Services Equipment Condition Index	
In use	8 years or older
Fair	5 to 7 years

Good	3 to 4 years
Excellent	1 to 2 years

Table 9.01.2 – Land Ambulance Services Equipment – Condition Index

## 9.02 Land Ambulance Services Equipment – Level of Service

Land Ambulance Services are available 24 hours a day to respond to emergency incidents. Therefore, all Land Ambulance Services Equipment must be maintained in a reliable condition. The original equipment manufacturer preventative maintenance standards are followed to ensure that an excellent level of service is maintained.

Land Ambulance Services Equipment must meet strict Provincial standards.

The Ministry of Health and Long-Term Care Emergency Health Services Branch sets the specifications for Land Ambulance Services Equipment.

## 9.03 Land Ambulance Services Equipment – Lifecycle Management Strategy

Land Ambulance Services Equipment life-cycle practices have remained consistent with the Provincial pre-download practices.

The County replaces Land Ambulance Services Equipment as required. This practice has resulted in a Land Ambulance Services Equipment that is dependable.

When a piece of Land Ambulance Services Equipment reaches the point of decommissioning, it is repurposed for another use within the County, sold at public auction or donated to a qualified donee in accordance with the County's Asset Disposal Policy.

The appropriate maintenance or rehabilitation schedule must be applied throughout an asset's lifecycle in order to cost effectively maintain the County's Land Ambulance Services Equipment at the established service levels. Three maintenance strategies are required in order to provide sustainable management of the County's Land Ambulance Services Equipment.

Strategy	Lifecycle Activity	Trigger
Routine maintenance	Planned routine maintenance includes cleaning, inspections, monitoring, condition assessments, scheduled general equipment maintenance. These activities maintain the	Ongoing

	condition of the EMS equipment and extend its useful service life by identifying potential issues before they become a problem.	
Major maintenance	Generally unplanned activities; however they can be anticipated and are generally accounted for within the County's annual operating budget. These activities include major repairs or replacement of major components.	As required.
Replacement	Equipment is replaced as required usually once the item is fully amortized.	100% of useful life

*Table 9.03.1 – Land Ambulance Services Equipment – Lifecycle Management Strategies*

## **9.04 Land Ambulance Services Equipment – Risk Analysis**

Given the nature of Land Ambulance Services, it is highly important that all equipment owned and operated by the Land Ambulance Services is functional and not at risk of failure. Equipment failure could potentially have life threatening impact.

Every three years the Land Ambulance Services is required to go through an independent review process.

## **9.05 Land Ambulance Services Equipment – Estimated Costs to Service Growth**

The County's Official Plan is projecting a population increase of approximately 4,500 by 2036. Within that growth, the County's Official Plan also sets a target for creating approximately 1,700 new jobs. This will likely result in more staff and equipment being required for Land Ambulance Services.

## **9.06 Land Ambulance Services Equipment – Financial Strategy and Sustainability**

### **Current Budget Capital Spend and Sustainability**

Each year, an amount equal to the budgeted amortization expense is budgeted to be transferred to reserve in order to partially meet future equipment purchase requirements.

In addition, \$122,600 is included annually in the budget for equipment. Therefore, sustainability has been reached for Land Ambulance Services Equipment replacement.

## **Reserves**

The County has an internally designated Land Ambulance Services reserve for Land Ambulance Services capital of \$201,420 as at December 31, 2018. This is the same reserve that is noted in the Land Ambulance Fleet section. In addition, the County has an internally designated Public Access Defibrillator reserve of \$27,069 as at December 31, 2018. In the event that a contingency occurs that requires unbudgeted funds, funding will be provided through reallocation of current year budget amounts or directly from the Working Capital Reserve. As at December 31, 2018 the Working Capital Reserve contained \$1,641,542. The Working Capital Reserve is not internally designated. It is a general reserve to be used to cover unexpected situations and requires approval from Council. Best practice is to have a balance in the Working Capital Reserve of 2 months of operating expenses.

## **Debt**

The County will consider debt if necessary to reduce or eliminate any gap in infrastructure needs. An annual debt repayment limit is set by the Ministry of Municipal Affairs under O.Reg. 403/02. The County has significant unutilized debt capacity.

## **Other Funding**

The County will continue to apply for all appropriate funding opportunities.

## **10.00 Planning Department Equipment**

### **10.01 Planning Department Equipment – Asset Inventory and Current Condition**

As at December 31, 2018, the County had Planning Department Equipment with a netbook value of \$25,093. This equipment had an original cost of \$34,242. All Planning Department equipment and GIS Software is amortized over 5 years. Examples of items included in the Equipment category for the Planning Department are the Global Positioning System (GPS) unit, South Central Ontario Ortho-photography Project (SCOOP) ortho-photography tiles, Light Detecting and Ranging (LiDAR) data and the Bizhub Colour Copier. Going forward all computer hardware and photocopiers are purchased and managed by IT.

### **10.02 Planning Department Equipment – Level of Service**

The Planning Department provides GIS hardware, software and all mapping products and services for the County and all four Local Municipalities.

All GIS hardware and software is expected to work all year with no down time – maintenance and upgrades are completed on weekends. If hardware breaks it is to be replaced within 30 days to ensure the County and Local Municipalities can continue to provide the required level of service. All Planning Department services and legislated requirements GIS and Planning Applications depend directly on the functioning of the equipment, hardware and software.

### **10.03 Planning Department Equipment – Lifecycle Management Strategy**

All Planning and GIS equipment is replaced on an as needed basis. The GPS unit is inspected monthly and serviced as required. The SCOOP ortho-photography is replaced on a 5 year cycle and older datasets may in future be limited by technology and the accessibility to the data.

### **10.04 Planning Department Equipment – Risk Analysis**

The County incurs risk by lending equipment to County Public Works and Local Municipalities. If equipment is broken or damaged during the lending process significant down time could incur causing delays in planning processes. Another risk is the threat of misuse of technology opening the ability for virus or malware which would lock access to or wipe out the data which is not easily replaced. This risk is mitigated by IT Services backup strategy.

### **10.05 Planning Department Equipment – Estimated Costs to Service Growth**

In the next four years, it is estimated that \$972,000 is required in order to purchase LiDAR data. This will allow the Planning Department to provide additional applications and services to the County, Local Municipalities and County citizens. LiDAR information and

data will be used to enhance existing parcel fabric data, update flood mapping and forecasting, and inform policy development, support by-law enforcement services. The information will be useful to the County and local municipalities related to site alteration management, infrastructure planning and energy management planning.

### **10.06 Planning Department Equipment – Financial Strategy and Sustainability**

SCOOP is replaced every 5 years, funds are set aside each year in the budget to ensure the County is able to purchase this product in future years (\$15 000).

At a minimum, a GPS unit and South Central Ontario Ortho-photography Project (SCOOP) data are required. LiDAR is a one-time purchase. The information recorded by LiDAR is unlikely to change in the future.

#### **Current Budget Capital Spend and Sustainability**

The 2019 approved capital budget included a capital investment for Planning and GIS of \$265,000. In addition, another \$15,000 transfer to reserve has been included in the 2019 budget for SCOOP. Therefore, sustainability has been reached for Planning and GIS Equipment replacement.

Once the level of funding required to meet sustainability is reached in each capital asset category any unspent funds will flow to the reserve for that asset type until needed in the future.

#### **Reserves**

The County had an internally designated Planning Reserve for Official Plan capital of \$58,017 and GIS Reserve for SCOOP capital of \$15,000 as at December 31, 2018. In the event that a contingency occurs that requires unbudgeted funds, funding will be provided through reallocation of current year budget amounts or directly from the Working Capital Reserve. As at December 31, 2018 the Working Capital Reserve contained \$1,641,542. The Working Capital Reserve is not internally designated. It is a general reserve to be used to cover unexpected situations and requires approval from Council. Best practice is to have a balance in the Working Capital Reserve of 2 months of operating expenses.

#### **Debt**

The County will consider debt if necessary to reduce or eliminate any gap in infrastructure needs. An annual debt repayment limit is set by the Ministry of Municipal Affairs under O.Reg. 403/02. The County has significant unutilized debt capacity.

#### **Natural Disaster Flood Mitigation Funding**

The County has been successful in the past in receiving Natural Disaster Flood Mitigation funding to purchase flood mapping data. The County will continue to apply for all appropriate funding opportunities.

## Other Funding

The County will continue to apply for all appropriate funding opportunities.

## 11.00 Information Technology Hardware and Software Licences

### 11.01 IT Hardware and Software – Asset Inventory and Current Condition

As at December 31, 2018, the County had information technology hardware and software licences with a net book value of \$57,246. The original cost of that hardware and software was \$145,895. Information technology hardware and software licences have been amortized over 5 years.

IT Software – Inventory and Condition Listing				
Software Description	Category	Purchase Year	Replacement Year	Condition
Email licensing	Software	2013	2018	Excellent
Remote Desktop licensing	Software	2014	2019	Excellent
Windows Server Licensing	Software	2015	2020	Excellent
SQL Server Licensing	Software	2017	2022	Excellent
Office Licensing	Software	2016	2021	Excellent
Backup Software	Software	2012	N/A	Excellent
Antivirus	Software	2017	N/A	Excellent
Spam filter	Software	2015	N/A	Excellent

Table 11.01.1 – IT Software – Inventory and Condition Listing (October 2018)

IT Software Condition Rating	
Rating	Description
Excellent	All software is deemed to not deteriorate in condition over the years. It is replaced as required.

Table 11.01.3 IT Software – Condition Index (December 2018)

IT Hardware – Inventory and Condition Listing
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Quantity	Category	Purchase Year	Replacement Year	Condition
1	Firewall	2016	2021	Good
2	Server	2016	2021	Good
3	Server	< 2014	2019	Poor
1	Storage	2015	2020	Fair
2	Storage	< 2014	2019	Poor
1	Switch	2018	2023	Excellent
1	Switch	2017	2022	Good
11	Total			

Table 11.01.2 - IT hardware – Inventory and Condition Listing (October 2018)

IT Computers, Laptops and Tablets – Inventory and Condition Listing				
Quantity	Category	Purchase Year	Replacement Year	Condition
5	Laptop	2018	2023	Excellent
15	Laptop	2017	2022	Good
5	Laptop	2016	2021	Good
5	Laptop	2015	2020	Fair
7	Laptop	< 2014	2019	Poor
1	Tablet	2016	2021	Good
2	Tablet	2015	2020	Fair
1	Tablet	< 2014	2019	Poor
8	Workstation	2018	2023	Excellent
6	Workstation	2017	2022	Good
3	Workstation	2016	2021	Good
15	Workstation	2015	2020	Fair
32	Workstation	< 2014	2019	Poor
105	Total			

Table 11.01.2 - IT hardware – Inventory and Condition Listing (October 2018)

IT Hardware Condition Rating	
Rating	Description
Poor	Fifth year end of life
Fair	Four years old

Good	Two or three years old
Excellent	New in current year

Table 11.01.3 IT Hardware – Condition Index (October 2018)

## 11.02 IT Hardware and Software – Level of Service

The expected level of service for all County equipment and software is 100% uptime for end users.

## 11.03 IT Hardware and Software – Lifecycle Management Strategy

### Hardware Replacement Schedule

IT hardware assets, including computers, servers, switches etc. are generally replaced on a 5 year schedule. IT has implemented a rotating replacement schedule, with the goal of replacing an even amount of assets each year. Equipment that has been replaced but is still operational is often downgraded to and used in lab environments or for non-essential workloads.

### Software Replacement Schedule (no maintenance contract)

IT software assets that have no annual maintenance/renewal plan are generally replaced on a 5 year schedule. IT rotates the replacement schedule so that each year at least one of the software assets is replaced. Many of these software assets are license based, so if extra licenses are purchased mid-cycle, they would only last for the remainder of the lifecycle term. As well, manufacturer policies surrounding security support can result in a software asset being replaced earlier than the 5 year plan. Typically software assets that have been replaced have no further use.

### Software Replacement Schedule (maintenance contract)

IT software assets that have an annual maintenance/renewal plan can be used indefinitely and are not generally replaced on any set schedule. These assets usually remain supported for as long as the manufacturer chooses to support the product.

## 11.04 IT Hardware and Software – Risk Analysis

The IT department has a backup plan in place in the event there is a critical failure of IT infrastructure. A replacement program is in place and sustainability is included in the capital budget.

## 11.05 IT Hardware and Software – Estimated Costs to Service Growth

The County's Official Plan is projecting a population increase of approximately 4,500 by 2036. Within that growth, the County's Official Plan also sets a target for creating approximately 1,700 new jobs. This may have an impact on the services provided by

both the County and the Local Municipalities. New services requiring more staff may require new IT infrastructure. Currently, IT supports the County and the Local Municipalities. Growth at the County level could be affected should the spheres of jurisdiction between County, Local and/or Provincial level be shifted.

## **11.06 IT Hardware and Software – Financial Strategy and Sustainability**

### **Current Budget Capital Spend and Sustainability**

Sustainability for IT Hardware and Software is included in the County's capital budget. Each year an amount of approximately \$22,114 is set aside for IT Hardware and Software investment. This amount is indexed each year for 2% inflation. Any unspent funds will flow to the reserve for that asset type until needed in the future.

### **Reserves**

The County had an internally designated Computer Reserve for IT capital of \$5,463 as at December 31, 2018. These funds represent unspent IT capital from prior years. In the event that a contingency occurs that requires unbudgeted funds, funding will be provided through reallocation of current year budget amounts or directly from the Working Capital Reserve. As at December 31, 2018 the Working Capital Reserve contained \$1,641,542. The Working Capital Reserve is not internally designated. It is a general reserve to be used to cover unexpected situations and requires approval from Council. Best practice is to have a balance in the Working Capital Reserve of 2 months of operating expenses.

### **Other Funding**

The County will continue to apply for all appropriate funding opportunities.

## 12.00 Library Collections

The Haliburton County Public Library Board (HCPLB) is a separate corporation that is consolidated into the financial statements of the Corporation of the County of Haliburton. As such, it is included in this AMP as the County has significant control over the HCPLB due to being the source of over 78% of the HCPLB's funding. The funding for HCPLB comes from the tax levy issued by the County.

### 12.01 Library Collections – Asset Inventory and Current Condition

As at December 31, 2018, the HCPLB had collections with a netbook value of \$320,016. These collections had an original cost of \$669,164. All HCPLB collections are amortized over 7 years. Collections include books, periodicals and DVDs.

The Haliburton County Public Library (HCPL) has approximately 52,950 items held, including 46,400 print volumes (books), 6,000 CDs and DVDs, and 69 book club sets of 8 books each.

The HCPL has access to a shared Provincial collection of e-books through the Ontario Library Service Consortium, which includes over 80,000 titles. HCPL has just over 1,000 e-book titles that only patrons can access. As well as 45 periodical titles held including weekly and monthly subscriptions.

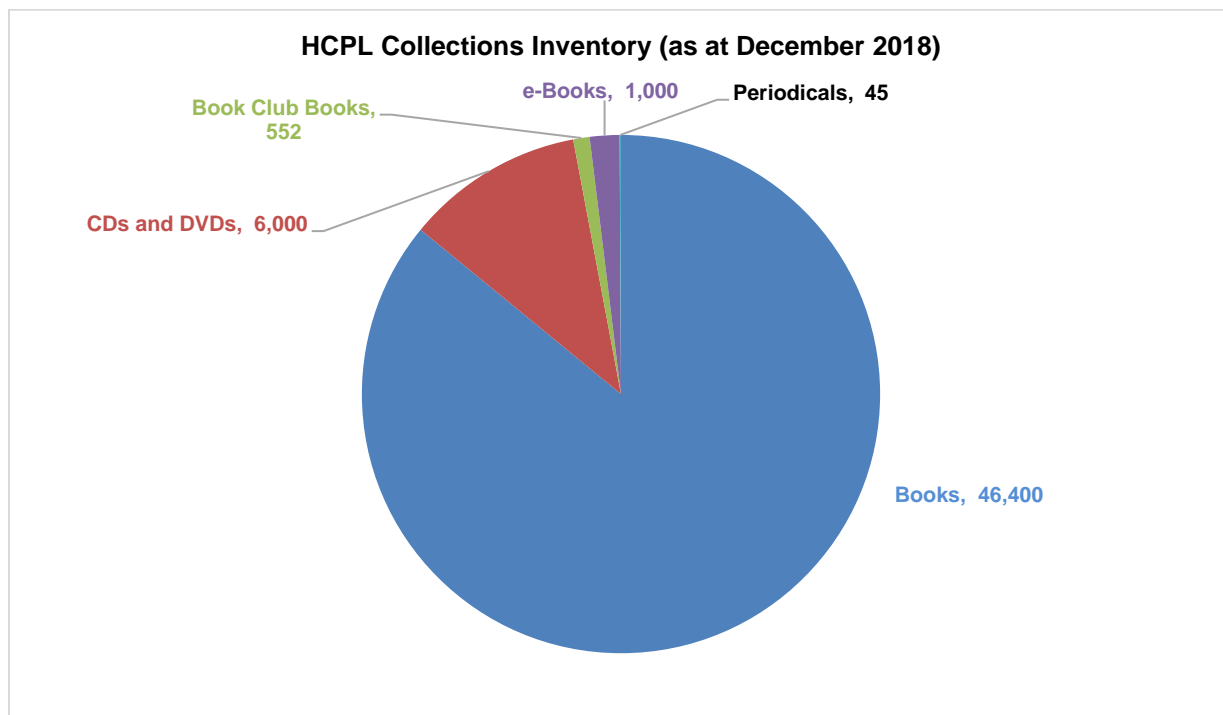


Figure 12.01.1 – Library – Composition of Collection (December 2018)

The following chart identifies the HCPL branches by Local Municipality, Population and Collection Size:

<b>Municipality (catchment area)</b>	<b>Population (Statistics Canada 2016)</b>	<b>Branch</b>	<b>Collection Size</b>	<b>Books per Person</b>
Minden Hills		Minden	14,271	
<b>Total Minden Hills</b>	<b>6,088</b>		<b>14,271</b>	<b>2.34</b>
Dysart et al		Haliburton	13,810	
		Administration	552	
<b>Total Dysart et al</b>	<b>6,280</b>		<b>14,362</b>	<b>2.29</b>
Highlands East	3,343	Cardiff	4,096	
		Gooderham	2,845	
		Highland Grove	4,695	
		Wilberforce	5,495	
<b>Total Highlands East</b>	<b>3,343</b>		<b>17,131</b>	<b>5.12</b>
Algonquin Highlands		Dorset	2,107	
		Stanhope	4,529	
<b>Total Algonquin Highlands</b>	<b>2,351</b>		<b>6,636</b>	<b>2.82</b>
<b>Total Population</b>	<b>18,062</b>	<b>County of Haliburton</b>	<b>52,400</b>	<b>2.90</b>

*Table 12.01.1- Library Branch Details*

All of the County's Library branches are in the "small" category according to Administrators of Rural and Urban Public Libraries of Ontario (ARUPLO) standards while Minden and Haliburton branches would be considered "medium" by ARUPLO based on catchment area. Catchment has not been documented here.

## 12.02 Library Collections – Level of Service

The HCPL level of service is defined by a 3 tier Service Delivery Model (SDM) developed by HCPL in 2015 as follows:

<b>Services Provided</b>	<b>Tier 1</b>	<b>Tier 2</b>	<b>Tier 3</b>
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Branch locations	Cardiff Dorset Gooderham Highland Grove	Stanhope Wilberforce	Haliburton Minden
Square footage of branch	< 1500	1500 to <2499	2500 or more
Hours of Operation	Minimum 6 hours per week ( 3 times per week for 2 hours)	Minimum 12 hours per week ( 4 times per week for 3 hours)	Minimum 24 hours per week ( 5 times per week for 4 hours with additional hours during peak periods)
Staffing	one staff member on duty that is a Library Technician or equivalent; if programming is planned additional staff will be required	one staff member on duty that is a Library Technician or equivalent; except when there is programming taking place	minimum of one staff member on duty that is a Library Technician or equivalent; a professional librarian periodically on site
<b>Collection size:</b>			
Print collection	3,000-3,500	3,500-5,000	5,000-13,000
Non-print collection	250-300	300-500	500-1,200
Coordinate ongoing collection exchanges	Yes	Yes	Yes
Courier service weekly	once	twice	twice or more
Programming for all ages	No	No	Yes
<b>Public access to technology:</b>			
# of public access computers	1	2	2
Public high speed internet access	Yes	Yes	Yes
Access to MS Office products	Yes	Yes	Yes
Wireless connectivity	Yes	Yes	Yes
Printers, scanners, copiers	Yes	Yes	Yes
# Early Literacy Station	0	1	2
<b>Community Outreach:</b>			
Provide a range of co-sponsored programs for all ages to meet community needs	No	Yes	Yes
Offer additional space to facilitate outreach	No	No	Yes

Showcase government services	Yes	Yes	Yes
Private programming rooms	No	No	Yes

Table 12.02.1- Libraries – Level of Service

Haliburton County Public Library’s Service Delivery Model states that the system should have a collection of 31,600 – 54,350 items (including print, periodicals, and non-print items).

The HCPL currently maintains an inventory of STEAM (Science, Technology, Engineering, Arts, and Math) programming materials, including circuits and coding kits, iPads, Laptops, and accessories. The HCPL STEAM programming materials currently requires the development of a lifecycle management strategy and replacement cycle of its own. The HCPL is currently in a period of innovation which includes the addition of non-traditional items to public library lending collections including STEAM programming materials. “Maker” activities are increasingly becoming viewed as a core-service alongside traditional collections. As such, there will be a need to maintain and replace current STEAM programming materials.

The HCPL is also currently experiencing a period of flux in the publishing industry in terms of print and digital items. As such, it will be required to expand and develop its e-book collection.

Growth of the collections is approached with the following in mind:

- Collection materials include a variety of physical, print and digital formats, and system-wide electronic resources;
- Physical or print publications will continue to be an important component for the County’s communities;
- Resources are shared among branches;
- Collections are responsive to each community’s needs.

### 12.03 Library Collections – Lifecycle Management Strategy

The HCPL print items are assessed annually on condition, circulation and publication date. Most items which are no longer in Good condition are discarded. Some difficult to replace or out of print items retained may be in Fair to Good condition (for instance, the local history collection). Discarded items still in Fair to Good condition are sent to Better World Books for resale or recycling. Items in Poor condition are sent to landfill.

E-book titles are purchased based on high holds within Overdrive and in the physical collection.

Book club sets are assessed annually on condition and circulation. Discarded sets still in Fair to Good condition are donated to prison book club programs.

Periodical issues are discarded after 1 year. Finally, non-print items such as CDs and DVDs are assessed for condition and functionality (e.g.: are discs scratched, will they play properly) and discarded if needed.

Items are replaced if:

- The item circulates frequently;
- The item is currently being requested by a patron;
- The item can be replaced at a reasonable cost and time;
- The item is of local significance (e.g.: local history).

The current condition of items in the HCPL collection is mostly rated as Good to Excellent.

In 2017, approximately 141,000 items were circulated.

The HCPL also provides e-resources through its website, which includes a small suite of databases.

#### **12.04 Library Collections – Risk Analysis**

Maintaining a collection in Good to Excellent physical condition, while maintaining current material and ensuring that the collection is responsive to the needs of the community has a direct impact on circulation. Materials in Poor condition are less likely to circulate, as are materials that are out of date.

Maintaining all collections – e-resources, e-books, STEAM programming materials, and physical collections in a way that is responsive to the community is essential for maintaining library use. If these collections are not current, relevant, and useful, HCPL use may decrease.

#### **12.05 Library Collections – Estimated Costs to Service Growth**

The County's Official Plan is projecting a population increase of approximately 4,500 by 2036. Within that growth, the County's Official Plan also sets a target for creating approximately 1,700 new jobs. This will have an impact on the library Collections service growth.

HCPL's increases to the physical collection is limited by the physical space of the library. To maintain the current physical collection requires approximately a 3% growth in the book budget per year. To increase the collection by 20% would likely require a proportional budget increase. This does not factor in expansion of physical space if that were required.

To grow the e-resource collection to pre-2016 numbers would cost approximately \$17,000.

It is difficult to estimate how much it will cost to grow the STEAM programming materials at this time – based on initial set up costs and current trends around technology obsolescence, one could estimate approximately \$10,000 over 5 years for upgrades and replacements.

## **12.06 Library Collections – Financial Strategy and Sustainability**

### **Current Budget Capital Spend and Sustainability**

Sustainability for Library collections is included in the County's capital budget. Each year an amount of approximately \$102,000 is set aside for collection purchases. This amount is indexed each year for 2% inflation. Therefore, sustainability has been reached for Library Collection replacement.

The OLA electronic book membership allows the Library to supplement physical books with electronic books. Electronic books reduces the waste being added to landfill when books in Poor condition are disposed of.

Approximately 5,000-7,000 new items are added to the collection annually while 5,000-7,000 items are discarded annually.

The STEAM programming materials were initially purchased through grants and donations at a cost of approximately \$20,000.

Sustainability has been included in the budget for Library capital.

### **Reserves**

The County had an internally designated Library Reserve for Library capital related to the "Maker Space" Program of \$35,177 (these funds have been invested until required) and an additional Library capital reserve of \$5,468 as at December 31, 2018. In the event that a contingency occurs that requires unbudgeted funds, funding will be provided through reallocation of current year budget amounts or directly from the Working Capital Reserve. As at December 31, 2018 the Working Capital Reserve contained \$1,641,542. The Working Capital Reserve is not internally designated. It is a general reserve to be used to cover unexpected situations and requires approval from Council. Best practice is to have a balance in the Working Capital Reserve of 2 months of operating expenses.

### **Other Funding**

The Library continues to apply for all appropriate funding opportunities. Historically, successful funding applications have funded summer students and technology purchases.

## 13.00 Library Equipment

The Haliburton County Public Library Board (HCPLB) is a separate corporation that is consolidated into the financial statements of the Corporation of the County of Haliburton. As such, it is included in this AMP as the County has significant control over the HCPLB due to being the source of over 75% of the HCPLB's funding. That funding for HCPLB comes from the tax levy issued by the County.

### 13.01 Library Equipment – Asset Inventory and Current Condition

As at December 31, 2018, HCLPB had equipment with a net book value of \$19,584. The original cost of that equipment was \$37,408. All of the Library Equipment has been amortized over 5 years.

Year Purchased	Description	Branch	Cost	Net Book Value	Condition
2013	Pool of Computers	All Branches	4,328.59	432.85	Fair
2014	Pool of Computers	All Branches	6,868.02	2,060.41	Fair
2015	Pool of Computers	All Branches	1,347.37	673.69	Good
2016	Library - Early Literacy Station	Haliburton Branch	3,241.06	2,268.74	Good
2016	Library Computers	All Branches	1,580.82	1,106.58	Good
2017	Library - CNB Computers - EODP		3,281.43	2,953.29	Excellent
2017	Library - CAP Computers	Haliburton Branch	3,955.76	3,560.18	Excellent
2017	Library - IMAC Computer - EODP	Haliburton Branch	2,539.80	2,285.82	Excellent
<b>Total</b>			<b>\$27,142.85</b>	<b>\$15,341.56</b>	

Table 13.01.1- Library Equipment – Inventory and Condition Listing

Library Equipment Condition Index	
Rating	Description
Poor	Five year or older

Fair	Four years old
Good	Two or three years old
Excellent	One year or less

*Table 13.01.2- Library Equipment – Condition Index*

## **13.02 Library Equipment – Level of Service**

The level of service for Library Equipment is 95% up time. In addition, all Library Equipment is expected to be in Fair or greater than Fair condition. The Library Equipment is budgeted in a five year cycle with approximately \$6,000 of capital equipment required to be purchased each year. In any given year, any unspent capital is moved to the library reserve for future year purchases provided the Library's operations ended the year in a balanced position.

The County expects to maintain the same level of service for the next ten years. No significant growth is expected.

## **13.03 Library Equipment – Lifecycle Management Strategy**

The lifecycle management strategy for Library Equipment is to replace it after five years.

## **13.04 Library Equipment – Risk Analysis**

Low risk is associated with Library Equipment. In the event of equipment failure no critical County systems are impacted and timing to replace a failed computer is minimal.

## **13.05 Library Equipment – Estimated Costs to Service Growth**

The County's Official Plan is projecting a population increase of approximately 4,500 by 2036. Within that growth, the County's Official Plan also sets a target for creating approximately 1,700 new jobs. This will have an effect on the Library Equipment service growth. Yet no growth is planned in the next 10 years; status quo is expected to be maintained.

## **13.06 Library Equipment – Financial Strategy and Sustainability**

### **Current Budget Capital Spend and Sustainability**

The financial strategy for sustainability for Library Equipment is to include the required \$6,000 per year in the capital budget.

This amount is included in the Library budget and will be maintained going forward. Therefore, sustainability has been reached for Library Equipment replacement.

## **Reserves**

The County has an internally designated Library Reserve for Library capital related to the “Maker Space” Program of \$35,177 (these funds have been invested until required) and an additional Library capital reserve of \$5,468 as at December 31, 2018. In the event that a contingency occurs that requires unbudgeted funds, funding will be provided through reallocation of current year budget amounts or directly from the Working Capital Reserve. As at December 31, 2018 the Working Capital Reserve contains \$1,641,542. The Working Capital Reserve is not internally designated. It is a general reserve to be used to cover unexpected situations and requires approval from Council. Best practice is to have a balance in the Working Capital Reserve of 2 months of operating expenses.

## **Other Funding**

The County will continue to apply for all appropriate funding opportunities.

## 14.00 Rail Trail

### 14.01 Rail Trail – Asset Inventory and Current Condition

As at December 31, 2018, the book value of the County's Rail Trail was \$59,553. This is the original cost of the Rail Trail which was purchased in 1988. The County Rail Trail is 34 km of abandoned rail bed. It contains two bridges, 68 small culverts, 12 gates and 4 stone benches. The two bridges fall under O.Reg 472/10, the condition of these structures is covered under the Structures portion of this Asset Management Plan. The Rail Trail is not amortized as it is classified as Land. Typically, land does not decrease in value.

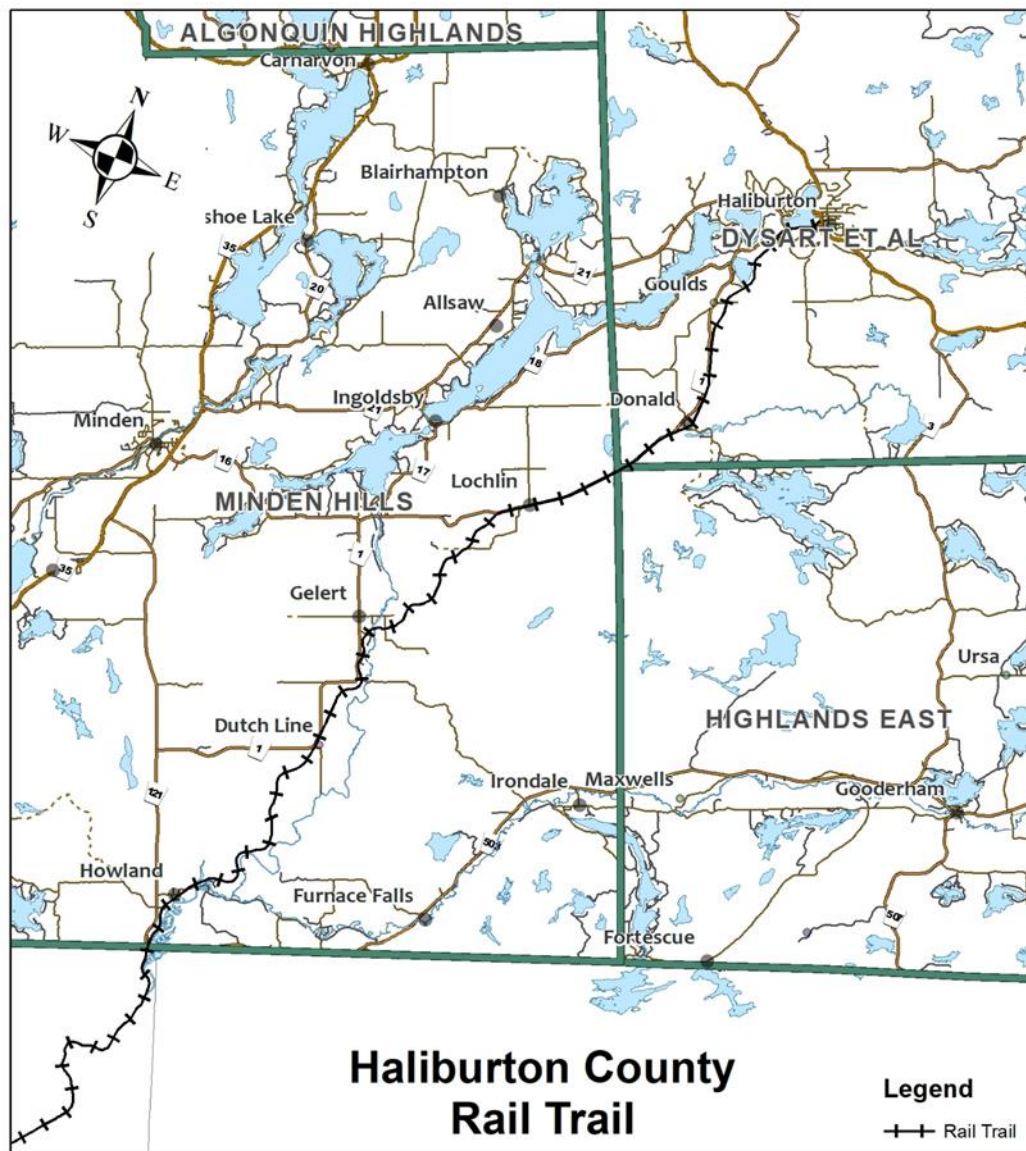


Figure 14.01.1 – Rail Trail Location Map

The trail is a multi-use trail and is utilized by pedestrians, cyclists, equestrians and ATVs in the summer months and snowmobiles in the winter.

The following table outlines the associated assets and their respective condition.

Rail Trail Asset Breakdown					
Structure Name	Poor	Fair	Good	Excellent	Total
Surface	7 km	7 km	10 km	10 km	34 km
Culverts	10	16	42	0	68
Structures (Bridges)	1	1	0	0	2
Trail Side Environment	7 km	7 km	10 km	10 km	34 km
Benches	0	0	0	4	4
Gates	0	0	0	12	12

Table 14.01.2- Rail Trail Asset Breakdown

## Surface

The surface base is comprised of a sandy granular B type material that has been graded and regraded over the years. This surface cannot hold up to the wear and tear of ATVs and becomes rutted and wash boarded very easily thus reducing the level of service. This can make it difficult to navigate as a pedestrian or cyclist. The County suspends usage of the trail by ATVs during the spring thaw to reduce the amount of damage to the surface. The County has undertaken an initiative to resurface the trail. This involves the placement quarried gravel at a rate of approximately 5 km per year. At the current rate, the resurfacing will be completed in 2022.

## Culverts

Almost all of the culverts were existing at the time of acquisition of the Rail Trail. This asset is not a high risk item and is replaced or rehabilitated as required.

## Structures

The two bridges that exist on the rail trail are monitored and assessed through the County's biennial structure inspections. The Howland Junction Trestle Bridge was rehabilitated in 2016 and the Gelert Bridge received a new deck surface in 2018. There is no current plan for further rehabilitation.

## Trailside Environment

This consists of clearing back brush from the side of the trail to reduce impedance of trail occupants and improve sightline for safety. This is being accomplished with a brushing unit at roughly the same rate of investment as the resurfacing.

## Benches

Accessories to the Rail Trail include 4 stone benches installed in 2017, the condition of these benches is considered excellent.

## **Gates**

Gates have been installed at the major access points to control access during the spring thaw or an unforeseen event. There are currently 12 gates controlling access to the trail that have been installed over the last three years. The condition of these assets is considered excellent.

### **14.02 Rail Trail – Level of Service**

A Technical Level of Service for the Rail Trail has not been assigned. The current condition largely tracks the surface condition and the brushing which are the two main components of the trail. With approximately 60% being in good or excellent condition and 40% in poor to fair condition, the overall condition can be rated fair to good. With the County's aspirations to finish the surfacing and brushing within the next three years, the trail's condition is anticipated to be in the 'good' range. Ongoing brushing and grading will be required where necessary as a maintenance item to ensure that this level of service is maintained.

Community Level of Service can be harder to determine as it is a subjective measure. While clearing the edges of the trail (brushing or mowing) improves the Technical Level of Service, the process can reduce the user's experience, or aesthetic value of the trail. County of Haliburton operators are cognisant of this situation and mitigate the extent of the clearing.

Although the County Rail Trail is flat and the surface is being improved to be firm and stable to meet accessibility standard, other minimum accessibility requirements such as signage and edge protection are not in place.

### **14.03 Rail Trail – Lifecycle Management Strategy**

The appropriate maintenance or rehabilitation schedule must be applied throughout an asset's lifecycle in order to cost effectively maintain the Rail Trail at the established service levels. Two maintenance strategies are required in order to provide sustainable management of the County Rail Trail. Table 14.03.1 is a general guideline. The trigger for a life cycle management strategy may vary due to other factors such as wear and tear due to usage or weather events and community priorities.

Strategy	Lifecycle Activity	Trigger
Routine maintenance	Routine maintenance includes grading and brushing. Grading to be undertaken on a yearly basis at minimum and brushing to be undertaken as required.	Ongoing
Rehabilitation	The current rehabilitation initiative is to be complete in three years. Subsequent rehabilitation will be required as the surface becomes unstable or settles. It is anticipated that resurfacing will be on a 10 year cycle.	Significant loss of surface aggregate.

Table 14.03.1 – Rail Trail – Lifecycle Management Strategies

The condition of the Rail Trail is managed through routine maintenance and rehabilitation.

In the longer term, climate change is expected to have an impact on future maintenance and rehabilitation needs of the Rail Trail. Increased flooding will cause the costs of structures to increase as culverts and bridges are increased in size and height in order to accommodate larger water volumes.

#### 14.04 Rail Trail – Risk Analysis

The County deems the level of risk on the rail trail to be relatively low. Being a flat recreational trail with good sight lines, both the probability of occurrence and the consequence are low.

#### 14.05 Rail Trail – Estimated Costs to Service Growth

The County's Official Plan is projecting a population increase of approximately 4,500 by 2036. Within that growth, the County's Official Plan also sets a target for creating approximately 1,700 new jobs. These jobs would be related to new commercial/industrial development. The Haliburton County Rail Trail has excess capacity to accommodate more users. As such, this development is not expected to impact service growth in the Rail Trail.

#### 14.06 Rail Trail – Financial Strategy and Sustainability

##### Current Budget Capital Spend and Sustainability

The following chart represents the 10-year spending estimate related to the Rail Trail asset excluding Structures. The goal for the trail's surface is to provide a firm base and a consistently smooth and well-drained surface. Once the initial resurfacing is complete (2020) the plan is to provide a secondary resurfacing to address minor rutting and to raise

the surface where it is lower than the surrounding area. The secondary resurfacing will help with drainage and provide enough material to allow regrading.

### **Rail Trail Base and Surface**

Improvement	Location	Required Investment (in 000's)		
		2020 to 2022	2023 to 2029	Total
Initial Resurfacing	Kms 20-34	\$ 90	\$ 0	<b>\$ 90</b>
Secondary Resurfacing	Kms 0-34	\$ 273	\$ 434	<b>\$ 707</b>
<b>TOTAL</b>		<b>\$ 363</b>	<b>\$ 434</b>	<b>\$ 797</b>

*Table 14.06.2 – Required 10 Year Investment in Rail Trail*

### **Financial Sustainability**

The County is working towards building financial sustainability into the budget process.

The annual Rail Trail budget is approximately \$100,000. Approximately 55% of these funds are used to resurface the trail and 10% go into reserve for future structural work. With these current investments on the Rail Trail, the trail is resurfaced end-to-end in 7 years.

The remainder of the budget is used to carry out annual maintenance activities such as brushing and trail side mowing, dust suppression, grading, washouts, culvert repair, signs, etc. As we resurface the trail it becomes more resilient to the ATV traffic and significant rain events, thus the hope it to reduce these annual maintenance costs.

There is significant pressure to finish the first full resurfacing of the rail trail on kilometers 20 to 34 and to resurface for the second time kilometres zero to 34 and raise the rail bed above the surrounding surface. The County continues to strive for sustainability of the Rail Trail.

### **Reserves**

The County has an internally designated Rail Trail reserve. Each year \$10,000 is transferred to reserve to allow for future investment in the two significant structures along the trail.

In the event that a contingency occurs that requires unbudgeted funds, funding will be provided through reallocation of current year budget amounts or directly from the Working Capital Reserve. As at December 31, 2018 the Rail Trail Reserve contained \$10,000 and the Working Capital Reserve contained \$1,641,542. The Working Capital Reserve is not internally designated. It is a general reserve to be used to cover unexpected situations and requires approval from Council.

**Debt**

As the Rail Trail is a low risk recreational trail, the County is unlikely to incur debt to assist with repairs or rehabilitations.

**Other Funding**

The County will continue to apply for all appropriate funding opportunities.

## Schedule A

## 10 Year Capital Forecast - Summarized by Asset Category

Expense	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	Average Annual Sustainability
<b>1600201 - Buildings</b>											
1600201 - Building	60,000	75,000	0	0	0	0	0	0	0	0	
<b>Total: 1600201 - Buildings</b>	<b>60,000</b>	<b>75,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13,500</b>
<b>1600301 - Equipment</b>											
1600301 - Equipment	449,293	276,300	292,520	328,625	26,701	402,026	76,401	124,496	153,041	27,826	
1600321 - Hardware	50,886	24,895	60,660	30,835	35,935	49,350	35,660	66,775	37,005	40,060	
<b>Total: 1600301 - Equipment</b>	<b>500,179</b>	<b>301,195</b>	<b>353,180</b>	<b>359,460</b>	<b>62,636</b>	<b>451,376</b>	<b>112,061</b>	<b>191,271</b>	<b>190,046</b>	<b>67,886</b>	<b>258,929</b>
<b>1600311 - Library Collection</b>											
1600311 - Books & DVDs	109,200	111,385	113,615	115,890	118,210	120,575	122,990	125,450	127,960	130,520	
<b>Total: 1600311 - Library Collection</b>	<b>109,200</b>	<b>111,385</b>	<b>113,615</b>	<b>115,890</b>	<b>118,210</b>	<b>120,575</b>	<b>122,990</b>	<b>125,450</b>	<b>127,960</b>	<b>130,520</b>	<b>119,580</b>
<b>1600341 - Software</b>											
1600341 - Software	35,827	80,135	8,079	23,490	45,477	54,667	85,655	8,060	26,495	44,475	
<b>Total: 1600341 - Software</b>	<b>35,827</b>	<b>80,135</b>	<b>8,079</b>	<b>23,490</b>	<b>45,477</b>	<b>54,667</b>	<b>85,655</b>	<b>8,060</b>	<b>26,495</b>	<b>44,475</b>	<b>41,236</b>
<b>1600421 - Vehicles - Licensed</b>											
1600421 - Ambulance	145,000	145,000	298,000	152,000	155,000	158,000	161,000	164,000	334,000	170,000	
1600421 - Vehicles - Licensed	579,000	593,500	944,000	738,500	707,000	555,500	477,000	325,000	490,000	120,000	
<b>Total: 1600421 - Vehicles - Licensed</b>	<b>724,000</b>	<b>738,500</b>	<b>1,242,000</b>	<b>890,500</b>	<b>862,000</b>	<b>713,500</b>	<b>638,000</b>	<b>489,000</b>	<b>824,000</b>	<b>290,000</b>	<b>741,150</b>
<b>1600441 - Vehicles - Unlicensed</b>											
1600441 - Vehicles - Unlicensed	11,000	80,000	0	0	0	0	0	0	0	260,000	
<b>Total: 1600441 - Vehicles - Unlicensed</b>	<b>11,000</b>	<b>80,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>260,000</b>	<b>35,100</b>
<b>1600461 - Vehicles - Trailers</b>											
1600461 - Vehicles - Trailers	40,000	0	0	0	0	0	0	0	0	15,000	
<b>Total: 1600461 - Vehicles - Trailers</b>	<b>40,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15,000</b>	<b>5,500</b>
<b>1600721 - Linear - Bridges</b>											
1600721 - 1 Lane Bridge	1,250,000	0	0	0	150,000	0	0	0	1,540,000	0	
1600721 - 2 Lane Bridge	585,000	0	825,000	545,000	0	95,000	0	172,000	0	0	
<b>Total: 1600721 - Linear - Bridges</b>	<b>1,835,000</b>	<b>0</b>	<b>825,000</b>	<b>545,000</b>	<b>150,000</b>	<b>95,000</b>	<b>0</b>	<b>172,000</b>	<b>1,540,000</b>	<b>0</b>	<b>516,200</b>
<b>1600741 - Linear - Culverts</b>											
1600741 - Culverts	100,000	1,020,000	25,000	0	350,000	300,000	300,000	0	0	365,000	
<b>Total: 1600741 - Linear - Culverts</b>	<b>100,000</b>	<b>1,020,000</b>	<b>25,000</b>	<b>0</b>	<b>350,000</b>	<b>300,000</b>	<b>300,000</b>	<b>0</b>	<b>0</b>	<b>365,000</b>	<b>246,000</b>
<b>1600761 - Linear - Roads - Base &amp; Surface</b>											
1600761 - Class 3 Road	110,000	60,000	190,000	1,915,000	190,000	1,845,000	1,672,000	1,064,000	1,140,000	626,000	
1600761 - Class 4 Road	3,546,000	1,168,000	1,730,000	0	2,130,000	713,000	601,000	1,419,000	190,000	1,354,000	
1600761 - Class 5 Road	2,502,000	1,817,000	1,396,000	1,251,000	1,078,000	431,000	657,000	668,000	1,693,000	1,216,000	
<b>Total: 1600761 - Linear - Roads - Base &amp; Surface</b>	<b>6,158,000</b>	<b>3,045,000</b>	<b>3,316,000</b>	<b>3,166,000</b>	<b>3,398,000</b>	<b>2,989,000</b>	<b>2,930,000</b>	<b>3,151,000</b>	<b>3,023,000</b>	<b>3,196,000</b>	<b>3,437,200</b>
<b>1600781 - Linear - Recreation Trails</b>											
1600781 - Linear - Recreation Trails	250,000	56,100	57,225	58,370	59,535	60,725	61,940	63,175	64,440	65,730	
<b>Total: 1600781 - Linear - Recreation Trails</b>	<b>250,000</b>	<b>56,100</b>	<b>57,225</b>	<b>58,370</b>	<b>59,535</b>	<b>60,725</b>	<b>61,940</b>	<b>63,175</b>	<b>64,440</b>	<b>65,730</b>	<b>79,724</b>
<b>Total Expense</b>	<b>9,823,206</b>	<b>5,507,315</b>	<b>5,940,099</b>	<b>5,158,710</b>	<b>5,045,858</b>	<b>4,784,843</b>	<b>4,250,646</b>	<b>4,199,956</b>	<b>5,795,941</b>	<b>4,434,611</b>	<b>5,494,118</b>

## Schedule B

# 10 Year Capital Forecast - Detail by Asset Category

Expense	Rank	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
<b>1600201 - Buildings</b>											
1600201 - Building											
BLDG00-2020-01 - Admin Building door locks		10,000	0	0	0	0	0	0	0	0	0
BLDG20-2020-01 - Building - 16 Prentice Street - Minden Daycare		15,000	0	0	0	0	0	0	0	0	0
PAT010-2021-01 - Patrol Yard 1 - Ingoldsby		0	25,000	0	0	0	0	0	0	0	0
PAT020-2021-01 - Patrol Yard 2 - Eagle Lake		0	25,000	0	0	0	0	0	0	0	0
PAT030-2021-01 - Patrol Yard 3 - Highlands East		0	25,000	0	0	0	0	0	0	0	0
REG000-2020-01 - Building - Registry Office		35,000	0	0	0	0	0	0	0	0	0
Total: 1600201 - Building		60,000	75,000	0	0	0	0	0	0	0	0
<b>Total: 1600201 - Buildings</b>		<b>60,000</b>	<b>75,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>1600301 - Equipment</b>											
1600301 - Equipment											
ADM000-2020-01 - Unspecified capital \$5,000		5,000	0	0	0	0	0	0	0	0	0
AMB000-2020-03 - PAD Replacement		10,000	0	0	0	0	0	0	0	0	0
AMB000-2020-04 - Power stretchers		50,000	0	0	0	0	0	0	0	0	0
AMB000-2020-05 - Manual stretcher (spare)		7,000	0	0	0	0	0	0	0	0	0
AMB000-2020-07 - RDS Licensing		8,410	0	0	0	0	0	0	0	0	0
AMB000-2020-08 - Windows Server License		888	0	0	0	0	0	0	0	0	0
AMB000-2020-09 - Website upgrade		2,375	0	0	0	0	0	0	0	0	0
AMB000-2021-05 - Ambulance Base Stations		0	2,400	0	0	0	0	0	0	0	0
AMB000-2021-06 - Public Access Defibrillation		0	10,000	0	0	0	0	0	0	0	0
AMB000-2022-10 - Public Access Defibrillation		0	0	10,000	0	0	0	0	0	0	0
AMB000-2023-09 - Public Access Defibrillation		0	0	0	10,000	0	0	0	0	0	0
AMB000-2024-04 - Public Access Defibrillation		0	0	0	0	10,000	0	0	0	0	0
AMB000-2025-06 - Haliburton Base Copier		0	0	0	0	0	4,000	0	0	0	0
AMB000-2025-07 - Cardiac Monitor/Defibrillators		0	0	0	0	0	365,000	0	0	0	0
AMB000-2025-08 - Public Access Defibrillation		0	0	0	0	0	10,000	0	0	0	0
AMB000-2026-08 - Power Cots		0	0	0	0	0	0	56,000	0	0	0
AMB000-2026-09 - Public Access Defibrillation		0	0	0	0	0	0	10,000	0	0	0
AMB000-2027-08 - Power Cots		0	0	0	0	0	0	0	84,000	0	0

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### 10 Year Capital Forecast - Detail by Asset Category

AMB000-2027-09 - Public Access Defibrillation	0	0	0	0	0	0	0	10,000	0	0
AMB000-2028-10 - Public Access Defibrillation	0	0	0	0	0	0	0	0	10,000	0
AMB000-2028-12 - Power Cots	0	0	0	0	0	0	0	0	58,000	0
AMB000-2029-07 - Public Access Defibrillation	0	0	0	0	0	0	0	0	0	10,000
COMP00-2021-08 - Copier - Public Works	0	4,000	0	0	0	0	0	0	0	0
COMP00-2022-09 - Copier - Administration	0	0	5,000	0	0	0	0	0	0	0
COMP00-2023-09 - A/V - Television 75" (10 yr)	0	0	0	4,935	0	0	0	0	0	0
COMP00-2025-09 - A/V - Television 75" and 60" (10 yr)	0	0	0	0	0	7,000	0	0	0	0
COMP00-2028-10 - A/V - Television 75" (10 yr)	0	0	0	0	0	0	0	0	3,500	0
COMP00-2028-11 - A/V - Microphone System	0	0	0	0	0	0	0	0	16,000	0
LIB000-2020-02 - Library - Work Station - Dysart Library and Administration Office	1,200	0	0	0	0	0	0	0	0	0
LIB000-2020-03 - Library - Work Stations - Stanhope Branch	1,200	0	0	0	0	0	0	0	0	0
LIB000-2020-04 - Library - Work Stations - Stanhope Branch	1,200	0	0	0	0	0	0	0	0	0
LIB000-2020-05 - Library - Laptop - Dysart Library and Administration Office	2,000	0	0	0	0	0	0	0	0	0
LIB000-2020-06 - Library - Work Station - Dysart Library and Administration Office	1,200	0	0	0	0	0	0	0	0	0
LIB000-2020-07 - Library - Work Station - Minden Branch	1,200	0	0	0	0	0	0	0	0	0
LIB000-2020-08 - Library - Laptop - Dysart Library and Administration Office	2,000	0	0	0	0	0	0	0	0	0
LIB000-2021-02 - Library - Work Station - Dysart Library and Administration Office	0	1,225	0	0	0	0	0	0	0	0
LIB000-2021-03 - Library - Work Station - Minden Branch	0	1,225	0	0	0	0	0	0	0	0
LIB000-2021-04 - Library - Work Station - Minden Branch	0	1,225	0	0	0	0	0	0	0	0
LIB000-2021-05 - Library - Work Stations - Stanhope Branch	0	1,225	0	0	0	0	0	0	0	0
LIB000-2022-02 - Library - Work Station - Dysart Library and Administration Office	0	0	1,250	0	0	0	0	0	0	0
LIB000-2022-03 - Library - Work Station - Dysart Library and Administration Office	0	0	1,250	0	0	0	0	0	0	0
LIB000-2022-04 - Library - Laptop - Dysart Library and Administration Office	0	0	835	0	0	0	0	0	0	0
LIB000-2022-05 - Library - Laptop - Dysart Library and Administration Office	0	0	835	0	0	0	0	0	0	0
LIB000-2022-06 - Library - Laptop - Dysart Library and Administration Office	0	0	835	0	0	0	0	0	0	0
LIB000-2022-07 - Library - Laptop - Dysart Library and Administration Office	0	0	835	0	0	0	0	0	0	0
LIB000-2022-08 - Library - Laptop - Dysart Library and Administration Office	0	0	835	0	0	0	0	0	0	0
LIB000-2022-09 - Library - Laptop - Dysart Library and Administration Office	0	0	835	0	0	0	0	0	0	0
LIB000-2022-10 - Library - Laptop - Dysart Library and Administration Office	0	0	835	0	0	0	0	0	0	0
LIB000-2022-11 - Library - Laptop - Dysart Library and Administration Office	0	0	835	0	0	0	0	0	0	0
LIB000-2022-12 - Library - Laptop - Dysart Library and Administration Office	0	0	835	0	0	0	0	0	0	0

## Schedule B

### 10 Year Capital Forecast - Detail by Asset Category

LIB000-2022-13 - Library - Laptop - Dysart Library and Administration Office	0	0	835	0	0	0	0	0	0	0
LIB000-2022-14 - Library - Laptop - Dysart Library and Administration Office	0	0	835	0	0	0	0	0	0	0
LIB000-2022-15 - Library - Laptop - Dysart Library and Administration Office	0	0	835	0	0	0	0	0	0	0
LIB000-2022-16 - Library - Work Station - Cardiff Branch	0	0	1,250	0	0	0	0	0	0	0
LIB000-2022-17 - Library - Work Station - Administration Office	0	0	1,250	0	0	0	0	0	0	0
LIB000-2022-18 - Library - Work Station - Minden Branch	0	0	1,250	0	0	0	0	0	0	0
LIB000-2022-19 - Library - Laptop - Dysart Library and Administration Office	0	0	1,250	0	0	0	0	0	0	0
LIB000-2022-20 - Library - Work Station - Wilberforce Branch	0	0	1,250	0	0	0	0	0	0	0
LIB000-2022-21 - Library - Work Station - Minden Branch	0	0	1,250	0	0	0	0	0	0	0
LIB000-2022-23 - Library - Work Station - Gooderham Branch	0	0	1,250	0	0	0	0	0	0	0
LIB000-2022-24 - Library - Work Station - Stanhope Branch	0	0	1,250	0	0	0	0	0	0	0
LIB000-2023-02 - Library - Copier - Dysart Library and Administration Office	0	0	0	4,245	0	0	0	0	0	0
LIB000-2023-03 - Library - Copier - Minden Branch	0	0	0	4,245	0	0	0	0	0	0
LIB000-2023-04 - Library - Work Station - Minden Branch	0	0	0	1,275	0	0	0	0	0	0
LIB000-2023-05 - Library - Work Station - Dysart Library and Administration Office	0	0	0	1,275	0	0	0	0	0	0
LIB000-2023-06 - Library - Work Station - Dysart Library and Administration Office	0	0	0	1,275	0	0	0	0	0	0
LIB000-2023-07 - Library - Work Station - Dysart Library and Administration Office	0	0	0	1,275	0	0	0	0	0	0
LIB000-2023-08 - Library - Work Station - Dysart Library and Administration Office	0	0	0	1,275	0	0	0	0	0	0
LIB000-2023-09 - Library - Work Station - Dysart Library and Administration Office	0	0	0	1,275	0	0	0	0	0	0
LIB000-2023-10 - Library - Work Station - Dysart Library and Administration Office	0	0	0	1,275	0	0	0	0	0	0
LIB000-2023-11 - Library - Work Station - Wilberforce Branch	0	0	0	1,275	0	0	0	0	0	0
LIB000-2024-02 - Library - Work Station - Minden Branch	0	0	0	0	1,300	0	0	0	0	0
LIB000-2024-03 - Library - Work Station - Dysart Library and Administration Office	0	0	0	0	1,300	0	0	0	0	0
LIB000-2024-04 - Library - Work Station - Dysart Library and Administration Office	0	0	0	0	1,300	0	0	0	0	0
LIB000-2024-05 - Library - Work Station - Wilberforce Branch	0	0	0	0	1,300	0	0	0	0	0
LIB000-2024-06 - Library - Work Station - Gooderham Branch	0	0	0	0	1,300	0	0	0	0	0
LIB000-2024-07 - Library - Work Station - Minden Branch	0	0	0	0	1,300	0	0	0	0	0
LIB000-2024-08 - Library - Work Station - Dysart Library and Administration Office	0	0	0	0	1,300	0	0	0	0	0
LIB000-2024-09 - Library - Work Station - Cardiff Branch	0	0	0	0	1,300	0	0	0	0	0
LIB000-2024-10 - Library - Work Station - Cardiff Branch	0	0	0	0	1,300	0	0	0	0	0
LIB000-2025-02 - Library - Work Station - Dysart Library and Administration Office	0	0	0	0	0	1,325	0	0	0	0
LIB000-2025-03 - Library - Work Station - Stanhope Branch	0	0	0	0	0	1,325	0	0	0	0

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### 10 Year Capital Forecast - Detail by Asset Category

LIB000-2025-04 - Library - Work Station - Stanhope Branch	0	0	0	0	0	1,325	0	0	0	0
LIB000-2025-05 - Library - Laptop - Dysart Library and Administration Office	0	0	0	0	0	2,200	0	0	0	0
LIB000-2025-06 - Library - Work Station - Dysart Library and Administration Office	0	0	0	0	0	1,325	0	0	0	0
LIB000-2025-07 - Library - Work Station - Minden Branch	0	0	0	0	0	1,325	0	0	0	0
LIB000-2025-08 - Library - Laptop - Dysart Library and Administration Office	0	0	0	0	0	2,200	0	0	0	0
LIB000-2026-02 - Library - Work Station - Dysart Library and Administration Office	0	0	0	0	0	0	1,350	0	0	0
LIB000-2026-03 - Library - Work Station - Minden Branch	0	0	0	0	0	0	1,350	0	0	0
LIB000-2026-04 - Library - Work Station - Minden Branch	0	0	0	0	0	0	1,350	0	0	0
LIB000-2026-05 - Library - Work Station - Stanhope Branch	0	0	0	0	0	0	1,350	0	0	0
LIB000-2027-02 - Library - Work Station - Dysart Library and Administration Office	0	0	0	0	0	0	0	1,375	0	0
LIB000-2027-03 - Library - Work Station - Dysart Library and Administration Office	0	0	0	0	0	0	0	1,375	0	0
LIB000-2027-04 - Library - Laptop - Dysart Library and Administration Office	0	0	0	0	0	0	0	920	0	0
LIB000-2027-05 - Library - Laptop - Dysart Library and Administration Office	0	0	0	0	0	0	0	920	0	0
LIB000-2027-06 - Library - Laptop - Dysart Library and Administration Office	0	0	0	0	0	0	0	920	0	0
LIB000-2027-07 - Library - Laptop - Dysart Library and Administration Office	0	0	0	0	0	0	0	920	0	0
LIB000-2027-08 - Library - Laptop - Dysart Library and Administration Office	0	0	0	0	0	0	0	920	0	0
LIB000-2027-09 - Library - Laptop - Dysart Library and Administration Office	0	0	0	0	0	0	0	920	0	0
LIB000-2027-10 - Library - Laptop - Dysart Library and Administration Office	0	0	0	0	0	0	0	920	0	0
LIB000-2027-11 - Library - Laptop - Dysart Library and Administration Office	0	0	0	0	0	0	0	920	0	0
LIB000-2027-12 - Library - Laptop - Dysart Library and Administration Office	0	0	0	0	0	0	0	920	0	0
LIB000-2027-13 - Library - Laptop - Dysart Library and Administration Office	0	0	0	0	0	0	0	920	0	0
LIB000-2027-14 - Library - Laptop - Dysart Library and Administration Office	0	0	0	0	0	0	0	920	0	0
LIB000-2027-15 - Library - Laptop - Dysart Library and Administration Office	0	0	0	0	0	0	0	920	0	0
LIB000-2027-16 - Library - Work Station - Cardiff Branch	0	0	0	0	0	0	0	1,375	0	0
LIB000-2027-17 - CTY - Administration Office	0	0	0	0	0	0	0	1,375	0	0
LIB000-2027-18 - Library - Work Station - Minden Branch	0	0	0	0	0	0	0	1,375	0	0
LIB000-2027-19 - Library - Laptop - Dysart Library and Administration Office	0	0	0	0	0	0	0	2,080	0	0
LIB000-2027-20 - Library - Work Station - Wilberforce Branch	0	0	0	0	0	0	0	1,375	0	0
LIB000-2027-21 - Library - Work Station - Minden Branch	0	0	0	0	0	0	0	1,375	0	0
LIB000-2027-22 - Library - Work Station - Gooderham Branch	0	0	0	0	0	0	0	1,375	0	0
LIB000-2027-23 - Library - Work Station - Stanhope Branch	0	0	0	0	0	0	0	1,375	0	0
LIB000-2028-02 - Library - Copier - Dysart Library and Administration Office	0	0	0	0	0	0	0	0	4,670	0

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### 10 Year Capital Forecast - Detail by Asset Category

LIB000-2028-03 - Library - Copier - Minden Branch	0	0	0	0	0	0	0	0	4,670	0
LIB000-2028-04 - Library - Work Station - Minden Branch	0	0	0	0	0	0	0	0	1,400	0
LIB000-2028-05 - Library - Work Station - Dysart Library and Administration Office	0	0	0	0	0	0	0	0	1,400	0
LIB000-2028-06 - Library - Work Station - Dysart Library and Administration Office	0	0	0	0	0	0	0	0	1,400	0
LIB000-2028-07 - Library - Work Station - Dysart Library and Administration Office	0	0	0	0	0	0	0	0	1,400	0
LIB000-2028-08 - Library - Work Station - Dysart Library and Administration Office	0	0	0	0	0	0	0	0	1,400	0
LIB000-2028-09 - Library - Work Station - Dysart Library and Administration Office	0	0	0	0	0	0	0	0	1,400	0
LIB000-2028-10 - Library - Work Station - Dysart Library and Administration Office	0	0	0	0	0	0	0	0	1,400	0
LIB000-2028-11 - Library - Work Station - Wilberforce Branch	0	0	0	0	0	0	0	0	1,400	0
LIB000-2029-02 - Library - Work Station - Minden Branch	0	0	0	0	0	0	0	0	0	1,425
LIB000-2029-03 - Library - Work Station - Dysart Library and Administration Office	0	0	0	0	0	0	0	0	0	1,425
LIB000-2029-04 - Library - Work Station - Dysart Library and Administration Office	0	0	0	0	0	0	0	0	0	1,425
LIB000-2029-05 - Library - Work Station - Wilberforce Branch	0	0	0	0	0	0	0	0	0	1,425
LIB000-2029-06 - Library - Work Station - Gooderham Branch	0	0	0	0	0	0	0	0	0	1,425
LIB000-2029-07 - Library - Work Station - Minden Branch	0	0	0	0	0	0	0	0	0	1,425
LIB000-2029-08 - Library - Work Station - Dysart Library and Administration Office	0	0	0	0	0	0	0	0	0	1,425
LIB000-2029-09 - Library - Work Station - Cardiff Branch	0	0	0	0	0	0	0	0	0	1,425
LIB000-2029-10 - Library - Work Station - Cardiff Branch	0	0	0	0	0	0	0	0	0	1,425
SYS000-2020-01 - LiDAR flood mapping	355,620	0	0	0	0	0	0	0	0	0
SYS000-2021-01 - LiDAR flood mapping	0	250,000	0	0	0	0	0	0	0	0
SYS000-2021-02 - Misc Equipment	0	5,000	0	0	0	0	0	0	0	0
SYS000-2022-01 - LiDAR flood mapping	0	0	250,000	0	0	0	0	0	0	0
SYS000-2022-02 - Misc Equipment	0	0	5,000	0	0	0	0	0	0	0
SYS000-2023-01 - LiDAR flood mapping	0	0	0	250,000	0	0	0	0	0	0
SYS000-2023-02 - Misc Equipment	0	0	0	5,000	0	0	0	0	0	0
SYS000-2023-03 - SCOOP	0	0	0	40,000	0	0	0	0	0	0
SYS000-2024-01 - LiDAR flood mapping	0	0	0	0	1	0	0	0	0	0
SYS000-2024-02 - Misc Equipment	0	0	0	0	5,000	0	0	0	0	0
SYS000-2025-01 - LiDAR flood mapping	0	0	0	0	0	1	0	0	0	0
SYS000-2025-02 - Misc Equipment	0	0	0	0	0	5,000	0	0	0	0
SYS000-2026-01 - LiDAR flood mapping	0	0	0	0	0	0	1	0	0	0
SYS000-2026-02 - Misc Equipment	0	0	0	0	0	0	5,000	0	0	0

## Schedule B

### 10 Year Capital Forecast - Detail by Asset Category

SYS000-2027-01 - LiDAR flood mapping	0	0	0	0	0	0	0	1	0	0
SYS000-2027-02 - Misc Equipment	0	0	0	0	0	0	0	5,000	0	0
SYS000-2028-01 - LiDAR flood mapping	0	0	0	0	0	0	0	0	1	0
SYS000-2028-02 - Misc Equipment	0	0	0	0	0	0	0	0	5,000	0
SYS000-2028-03 - SCOOP	0	0	0	0	0	0	0	0	40,000	0
SYS000-2029-01 - LiDAR flood mapping	0	0	0	0	0	0	0	0	0	1
SYS000-2029-02 - Misc Equipment	0	0	0	0	0	0	0	0	0	5,000
Total: 1600301 - Equipment	449,293	276,300	292,520	328,625	26,701	402,026	76,401	124,496	153,041	27,826
1600321 - Hardware										
AMB000-2020-10 - Storage - Offsite NAS	2,308	0	0	0	0	0	0	0	0	0
AMB000-2020-11 - UPS - Server Room UPS	2,308	0	0	0	0	0	0	0	0	0
AMB000-2020-13 - Ambulance Laptop Replacement	5,000	0	0	0	0	0	0	0	0	0
AMB000-2020-14 - Ambulance Laptop Replacement	5,000	0	0	0	0	0	0	0	0	0
AMB000-2020-15 - Ambulance Laptop Replacement	5,000	0	0	0	0	0	0	0	0	0
AMB000-2021-04 - Firewall - County Watchguard	0	725	0	0	0	0	0	0	0	0
AMB000-2021-07 - Ambulance Laptop Replacement	0	5,100	0	0	0	0	0	0	0	0
AMB000-2021-08 - Ambulance Laptop Replacement	0	5,100	0	0	0	0	0	0	0	0
AMB000-2022-03 - Server 1	0	0	3,325	0	0	0	0	0	0	0
AMB000-2022-04 - Server 2	0	0	3,325	0	0	0	0	0	0	0
AMB000-2022-05 - Core Switch	0	0	650	0	0	0	0	0	0	0
AMB000-2022-07 - Ambulance Laptop Replacement	0	0	5,200	0	0	0	0	0	0	0
AMB000-2022-08 - Ambulance Laptop Replacement	0	0	5,200	0	0	0	0	0	0	0
AMB000-2022-09 - Ambulance Laptop Replacement	0	0	2,080	0	0	0	0	0	0	0
AMB000-2023-02 - Switch - Core	0	0	0	660	0	0	0	0	0	0
AMB000-2023-03 - Storage - Tape Drive	0	0	0	1,130	0	0	0	0	0	0
AMB000-2023-04 - Ambulance Workstation	0	0	0	1,250	0	0	0	0	0	0
AMB000-2023-05 - Ambulance Laptop Replacement	0	0	0	5,300	0	0	0	0	0	0
AMB000-2023-06 - Ambulance Laptop Replacement	0	0	0	2,120	0	0	0	0	0	0
AMB000-2023-07 - Ambulance Laptop Replacement	0	0	0	2,120	0	0	0	0	0	0
AMB000-2023-08 - Ambulance Laptop Replacement	0	0	0	2,120	0	0	0	0	0	0
AMB000-2024-03 - Storage - Onsite NAS	0	0	0	0	2,500	0	0	0	0	0
AMB000-2024-05 - Workstation Replacement	0	0	0	0	1,300	0	0	0	0	0

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### 10 Year Capital Forecast - Detail by Asset Category

AMB000-2024-06 - Ambulance Laptop Replacement	0	0	0	0	5,400	0	0	0	0	0
AMB000-2024-07 - Workstation Replacement	0	0	0	0	1,300	0	0	0	0	0
AMB000-2024-08 - Workstation Replacement	0	0	0	0	1,300	0	0	0	0	0
AMB000-2025-02 - Storage - Offsite NAS	0	0	0	0	0	2,550	0	0	0	0
AMB000-2025-03 - UPS - Server Room UPS	0	0	0	0	0	2,550	0	0	0	0
AMB000-2025-04 - Ambulance Laptop Replacement	0	0	0	0	0	5,500	0	0	0	0
AMB000-2025-05 - Ambulance Laptop Replacement	0	0	0	0	0	5,500	0	0	0	0
AMB000-2026-02 - Firewall - County Watchguard	0	0	0	0	0	0	800	0	0	0
AMB000-2026-03 - Ambulance Laptop Replacement	0	0	0	0	0	0	5,600	0	0	0
AMB000-2026-04 - Ambulance Laptop Replacement	0	0	0	0	0	0	5,600	0	0	0
AMB000-2026-05 - Ambulance Laptop Replacement	0	0	0	0	0	0	5,600	0	0	0
AMB000-2026-06 - Workstation Replacement	0	0	0	0	0	0	1,350	0	0	0
AMB000-2026-07 - Workstation Replacement	0	0	0	0	0	0	1,350	0	0	0
AMB000-2027-02 - Server 1	0	0	0	0	0	0	0	3,600	0	0
AMB000-2027-03 - Server 2	0	0	0	0	0	0	0	3,600	0	0
AMB000-2027-04 - Core Switch	0	0	0	0	0	0	0	715	0	0
AMB000-2027-05 - Ambulance Laptop Replacement	0	0	0	0	0	0	0	5,700	0	0
AMB000-2027-06 - Ambulance Laptop Replacement	0	0	0	0	0	0	0	5,700	0	0
AMB000-2027-07 - Laptop Replacement	0	0	0	0	0	0	0	2,280	0	0
AMB000-2028-03 - Switch - Core	0	0	0	0	0	0	0	0	730	0
AMB000-2028-04 - Storage - Tape Drive	0	0	0	0	0	0	0	0	1,220	0
AMB000-2028-05 - Workstation Replacement	0	0	0	0	0	0	0	0	1,400	0
AMB000-2028-06 - Ambulance Laptop Replacement	0	0	0	0	0	0	0	0	5,800	0
AMB000-2028-07 - Laptop Replacement	0	0	0	0	0	0	0	0	2,320	0
AMB000-2028-08 - Laptop Replacement	0	0	0	0	0	0	0	0	2,320	0
AMB000-2028-09 - Laptop Replacement	0	0	0	0	0	0	0	0	2,320	0
AMB000-2029-02 - Storage - Onsite NAS	0	0	0	0	0	0	0	0	0	2,750
AMB000-2029-03 - Ambulance Laptop Replacement	0	0	0	0	0	0	0	0	0	5,900
AMB000-2029-04 - Workstation Replacement	0	0	0	0	0	0	0	0	0	1,425
AMB000-2029-05 - Workstation Replacement	0	0	0	0	0	0	0	0	0	1,425
AMB000-2029-06 - Workstation Replacement	0	0	0	0	0	0	0	0	0	1,425
COMP00-2020-01 - Laptop - Treasurer	2,000	0	0	0	0	0	0	0	0	0

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# 10 Year Capital Forecast - Detail by Asset Category

COMP00-2020-02 - Laptop - IT Technician	2,000	0	0	0	0	0	0	0	0	0
COMP00-2020-03 - Laptop - IT Director	2,000	0	0	0	0	0	0	0	0	0
COMP00-2020-04 - Laptop - CAO	2,000	0	0	0	0	0	0	0	0	0
COMP00-2020-05 - Workstation - HG Foreman	1,200	0	0	0	0	0	0	0	0	0
COMP00-2020-06 - Workstation - Ingoldsby Mechanic	1,200	0	0	0	0	0	0	0	0	0
COMP00-2020-08 - Storage - Offsite NAS	9,869	0	0	0	0	0	0	0	0	0
COMP00-2020-09 - UPS - Server Room UPS	11,000	0	0	0	0	0	0	0	0	0
COMP00-2021-01 - Laptop - HR Manager	0	1,225	0	0	0	0	0	0	0	0
COMP00-2021-02 - Laptop - Director Public Works	0	1,225	0	0	0	0	0	0	0	0
COMP00-2021-03 - Laptop - Director of Planning	0	2,040	0	0	0	0	0	0	0	0
COMP00-2021-04 - Tablet - Warden	0	2,040	0	0	0	0	0	0	0	0
COMP00-2021-05 - Workstation - Finance Clerk	0	2,040	0	0	0	0	0	0	0	0
COMP00-2021-06 - Workstation - Public Works Administration	0	2,040	0	0	0	0	0	0	0	0
COMP00-2021-07 - Firewall - County Watchguard	0	3,360	0	0	0	0	0	0	0	0
COMP00-2022-01 - Laptop - Operations Manager	0	0	2,080	0	0	0	0	0	0	0
COMP00-2022-02 - Workstation - Engineering Assistant	0	0	1,250	0	0	0	0	0	0	0
COMP00-2022-03 - Workstation - Engineering Assistant	0	0	1,250	0	0	0	0	0	0	0
COMP00-2022-04 - Workstation - Toursim Assistant	0	0	1,250	0	0	0	0	0	0	0
COMP00-2022-05 - Workstation - Planning Technologist	0	0	1,250	0	0	0	0	0	0	0
COMP00-2022-06 - Server 1	0	0	15,400	0	0	0	0	0	0	0
COMP00-2022-07 - Server 2	0	0	15,400	0	0	0	0	0	0	0
COMP00-2022-08 - Core Switch	0	0	3,000	0	0	0	0	0	0	0
COMP00-2023-01 - Laptop - IT Technician	0	0	0	2,120	0	0	0	0	0	0
COMP00-2023-02 - Laptop - HR Generalist/Deputy Clerk	0	0	0	2,120	0	0	0	0	0	0
COMP00-2023-03 - Workstation - GIS Technician	0	0	0	2,120	0	0	0	0	0	0
COMP00-2023-04 - Workstation - Financial/Payroll Analyst	0	0	0	1,275	0	0	0	0	0	0
COMP00-2023-05 - Workstation - Roads Superintendent	0	0	0	1,275	0	0	0	0	0	0
COMP00-2023-06 - Workstation - Ingoldsby Patrol	0	0	0	1,275	0	0	0	0	0	0
COMP00-2023-07 - Switch - Core	0	0	0	2,900	0	0	0	0	0	0
COMP00-2023-08 - Storage - Tape Drive	0	0	0	3,050	0	0	0	0	0	0
COMP00-2024-01 - Laptop - Physician Recruitment	0	0	0	0	2,160	0	0	0	0	0
COMP00-2024-02 - Workstation - Engineering Student	0	0	0	0	1,300	0	0	0	0	0

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### 10 Year Capital Forecast - Detail by Asset Category

COMP00-2024-03 - Workstation - Warden	0	0	0	0	1,300	0	0	0	0	0
COMP00-2024-04 - Workstation - Receptionist	0	0	0	0	1,300	0	0	0	0	0
COMP00-2024-05 - Workstation - Council AV	0	0	0	0	1,300	0	0	0	0	0
COMP00-2024-06 - Workstation - 911/GIS Technician	0	0	0	0	1,300	0	0	0	0	0
COMP00-2024-07 - Workstation - Patrol Superintendent	0	0	0	0	1,300	0	0	0	0	0
COMP00-2024-08 - Workstation - Stock Keeper	0	0	0	0	1,300	0	0	0	0	0
COMP00-2024-09 - Workstation - Spare	0	0	0	0	1,300	0	0	0	0	0
COMP00-2024-10 - Storage - Onsite NAS	0	0	0	0	11,575	0	0	0	0	0
COMP00-2025-01 - Laptop - Treasurer	0	0	0	0	0	2,200	0	0	0	0
COMP00-2025-02 - Laptop - IT Technician	0	0	0	0	0	2,200	0	0	0	0
COMP00-2025-03 - Laptop - IT Director	0	0	0	0	0	2,200	0	0	0	0
COMP00-2025-04 - Laptop - CAO	0	0	0	0	0	2,200	0	0	0	0
COMP00-2025-05 - Workstation - HG Foreman	0	0	0	0	0	1,325	0	0	0	0
COMP00-2025-06 - Workstation - Ingoldsby Mechanic	0	0	0	0	0	1,325	0	0	0	0
COMP00-2025-07 - Storage - Offsite NAS	0	0	0	0	0	10,900	0	0	0	0
COMP00-2025-08 - UPS - Server Room UPS	0	0	0	0	0	10,900	0	0	0	0
COMP00-2026-01 - Laptop - HR Manager	0	0	0	0	0	0	1,350	0	0	0
COMP00-2026-02 - Laptop - Director Public Works	0	0	0	0	0	0	1,350	0	0	0
COMP00-2026-03 - Laptop - Director of Planning	0	0	0	0	0	0	2,240	0	0	0
COMP00-2026-04 - Tablet - Warden	0	0	0	0	0	0	2,240	0	0	0
COMP00-2026-05 - Workstation - Finance Clerk	0	0	0	0	0	0	2,240	0	0	0
COMP00-2026-06 - Workstation - Public Works Administration	0	0	0	0	0	0	2,240	0	0	0
COMP00-2026-07 - Firewall - County Watchguard	0	0	0	0	0	0	3,700	0	0	0
COMP00-2027-01 - Laptop - Operations Manager	0	0	0	0	0	0	0	2,280	0	0
COMP00-2027-02 - Workstation - Engineering Assistant	0	0	0	0	0	0	0	1,400	0	0
COMP00-2027-03 - Workstation - Engineering Assistant	0	0	0	0	0	0	0	1,400	0	0
COMP00-2027-04 - Workstation - Toursim Assistant	0	0	0	0	0	0	0	1,400	0	0
COMP00-2027-05 - Workstation - Planning Technologist	0	0	0	0	0	0	0	1,400	0	0
COMP00-2027-06 - Server 1	0	0	0	0	0	0	0	17,000	0	0
COMP00-2027-07 - Server 2	0	0	0	0	0	0	0	17,000	0	0
COMP00-2027-08 - Core Switch	0	0	0	0	0	0	0	3,300	0	0
COMP00-2028-01 - Laptop - Director of Tourism	0	0	0	0	0	0	0	0	2,320	0

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# 10 Year Capital Forecast - Detail by Asset Category

COMP00-2028-02 - Laptop - IT Technician	0	0	0	0	0	0	0	0	2,320	0
COMP00-2028-03 - Laptop - HR Generalist/Deputy Clerk	0	0	0	0	0	0	0	0	2,320	0
COMP00-2028-04 - Workstation - GIS Technician	0	0	0	0	0	0	0	0	1,450	0
COMP00-2028-05 - Workstation - Financial/Payroll Analyst	0	0	0	0	0	0	0	0	1,450	0
COMP00-2028-06 - Workstation - Roads Superintendent	0	0	0	0	0	0	0	0	1,450	0
COMP00-2028-07 - Workstation - Ingoldsby Patrol	0	0	0	0	0	0	0	0	1,450	0
COMP00-2028-08 - Switch - Core	0	0	0	0	0	0	0	0	3,200	0
COMP00-2028-09 - Storage - Tape Drive	0	0	0	0	0	0	0	0	4,935	0
COMP00-2029-01 - Laptop - Physician Recruitment	0	0	0	0	0	0	0	0	0	2,360
COMP00-2029-02 - Workstation - Engineering Student	0	0	0	0	0	0	0	0	0	1,500
COMP00-2029-03 - Workstation - Warden	0	0	0	0	0	0	0	0	0	1,500
COMP00-2029-04 - Workstation - Receptionist	0	0	0	0	0	0	0	0	0	1,500
COMP00-2029-05 - Workstation - Council AV	0	0	0	0	0	0	0	0	0	1,500
COMP00-2029-06 - Workstation - 911/GIS Technician	0	0	0	0	0	0	0	0	0	1,500
COMP00-2029-07 - Workstation - Patrol Superintendent	0	0	0	0	0	0	0	0	0	1,500
COMP00-2029-08 - Workstation - Stock Keeper	0	0	0	0	0	0	0	0	0	1,500
COMP00-2029-09 - Workstation - Spare	0	0	0	0	0	0	0	0	0	1,500
COMP00-2029-10 - Storage - Onsite NAS	0	0	0	0	0	0	0	0	0	12,775
Total: 1600321 - Hardware	50,886	24,895	60,660	30,835	35,935	49,350	35,660	66,775	37,005	40,060
<b>Total: 1600301 - Equipment</b>	<b>500,179</b>	<b>301,195</b>	<b>353,180</b>	<b>359,460</b>	<b>62,636</b>	<b>451,376</b>	<b>112,061</b>	<b>191,271</b>	<b>190,046</b>	<b>67,886</b>
<b>1600311 - Library Collection</b>										
1600311 - Books & DVDs										
LIB000-2020-01 - Library Collection - Books & DVDs	109,200	0	0	0	0	0	0	0	0	0
LIB000-2021-01 - Library Collection - Books & DVDs	0	111,385	0	0	0	0	0	0	0	0
LIB000-2022-01 - Library Collection - Books & DVDs	0	0	113,615	0	0	0	0	0	0	0
LIB000-2023-01 - Library Collection - Books & DVDs	0	0	0	115,890	0	0	0	0	0	0
LIB000-2024-01 - Library Collection - Books & DVDs	0	0	0	0	118,210	0	0	0	0	0
LIB000-2025-01 - Library Collection - Books & DVDs	0	0	0	0	0	120,575	0	0	0	0
LIB000-2026-01 - Library Collection - Books & DVDs	0	0	0	0	0	0	122,990	0	0	0
LIB000-2027-01 - Library Collection - Books & DVDs	0	0	0	0	0	0	0	125,450	0	0
LIB000-2028-01 - Library Collection - Books & DVDs	0	0	0	0	0	0	0	0	127,960	0
LIB000-2029-01 - Library Collection - Books & DVDs	0	0	0	0	0	0	0	0	0	130,520

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# 10 Year Capital Forecast - Detail by Asset Category

Total: 1600311 - Books & DVDs	109,200	111,385	113,615	115,890	118,210	120,575	122,990	125,450	127,960	130,520
<b>Total: 1600311 - Library Collection</b>	<b>109,200</b>	<b>111,385</b>	<b>113,615</b>	<b>115,890</b>	<b>118,210</b>	<b>120,575</b>	<b>122,990</b>	<b>125,450</b>	<b>127,960</b>	<b>130,520</b>
<b>1600341 - Software</b>										
1600341 - Software										
AMB000-2020-06 - Windows Server Datacentre	2,166	0	0	0	0	0	0	0	0	0
AMB000-2021-09 - Security Software	0	3,060	0	0	0	0	0	0	0	0
AMB000-2021-20 - MS Office - Office Licensing	0	5,265	0	0	0	0	0	0	0	0
AMB000-2022-20 - SQL Server Licensing	0	0	1,500	0	0	0	0	0	0	0
AMB000-2023-20 - Exchange Licensing	0	0	0	5,350	0	0	0	0	0	0
AMB000-2024-20 - Windows Server Database	0	0	0	0	5,290	0	0	0	0	0
AMB000-2024-21 - Windows Server Licenses	0	0	0	0	1,055	0	0	0	0	0
AMB000-2024-22 - Windows Server CALs	0	0	0	0	3,140	0	0	0	0	0
AMB000-2025-20 - RDS Licensing	0	0	0	0	0	10,175	0	0	0	0
AMB000-2025-21 - Windows Server Licenses	0	0	0	0	0	1,075	0	0	0	0
AMB000-2026-20 - MS Office - Office Licensing	0	0	0	0	0	0	6,370	0	0	0
AMB000-2027-20 - SQL Server Licensing	0	0	0	0	0	0	0	1,790	0	0
AMB000-2028-20 - Exchange Licensing	0	0	0	0	0	0	0	0	6,470	0
AMB000-2029-20 - Windows Server CALs	0	0	0	0	0	0	0	0	0	3,455
AMB000-2029-21 - Windows Server Datacentre	0	0	0	0	0	0	0	0	0	5,820
COMP00-2020-07 - Haliburtoncounty.ca redesign project	16,625	0	0	0	0	0	0	0	0	0
COMP00-2020-10 - RDS Licensing	2,890	0	0	0	0	0	0	0	0	0
COMP00-2020-11 - Windows Server Datacentre License	10,034	0	0	0	0	0	0	0	0	0
COMP00-2020-12 - Windows Server Licensing	4,112	0	0	0	0	0	0	0	0	0
COMP00-2021-09 - Windows MS Office Licensing	0	71,810	0	0	0	0	0	0	0	0
COMP00-2022-10 - SQL Server Licensing	0	0	6,579	0	0	0	0	0	0	0
COMP00-2023-10 - Exchange Licensing	0	0	0	18,140	0	0	0	0	0	0
COMP00-2024-11 - Windows Server Datacentre	0	0	0	0	20,561	0	0	0	0	0
COMP00-2024-12 - Windows Server licenses	0	0	0	0	4,112	0	0	0	0	0
COMP00-2024-13 - Windows Server CALs	0	0	0	0	11,320	0	0	0	0	0
COMP00-2025-10 - RDS Licensing	0	0	0	0	0	10,430	0	0	0	0
COMP00-2025-11 - Windows Server licenses	0	0	0	0	0	4,112	0	0	0	0
COMP00-2025-12 - Website - haliburtoncounty.ca	0	0	0	0	0	28,875	0	0	0	0

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# 10 Year Capital Forecast - Detail by Asset Category

COMP00-2026-08 - Windows MS Office Licensing	0	0	0	0	0	0	79,285	0	0	0
COMP00-2027-09 - SQL Server Licensing	0	0	0	0	0	0	0	6,270	0	0
COMP00-2028-12 - Exchange Licensing	0	0	0	0	0	0	0	0	20,025	0
COMP00-2029-11 - Windows Server Datacentre	0	0	0	0	0	0	0	0	0	22,700
COMP00-2029-12 - Windows Server CALs	0	0	0	0	0	0	0	0	0	12,500
Total: 1600341 - Software	35,827	80,135	8,079	23,490	45,477	54,667	85,655	8,060	26,495	44,475
<b>Total: 1600341 - Software</b>	<b>35,827</b>	<b>80,135</b>	<b>8,079</b>	<b>23,490</b>	<b>45,477</b>	<b>54,667</b>	<b>85,655</b>	<b>8,060</b>	<b>26,495</b>	<b>44,475</b>
<b>1600421 - Vehicles - Licensed</b>										
1600421 - Ambulance										
AMB000-2020-01 - Ambulance purchase	145,000	0	0	0	0	0	0	0	0	0
AMB000-2021-01 - Ambulance purchase	0	145,000	0	0	0	0	0	0	0	0
AMB000-2022-01 - Ambulance purchase	0	0	149,000	0	0	0	0	0	0	0
AMB000-2022-02 - Ambulance purchase	0	0	149,000	0	0	0	0	0	0	0
AMB000-2023-01 - Ambulance purchase	0	0	0	152,000	0	0	0	0	0	0
AMB000-2024-01 - Ambulance purchase	0	0	0	0	155,000	0	0	0	0	0
AMB000-2025-01 - Ambulance purchase	0	0	0	0	0	158,000	0	0	0	0
AMB000-2026-01 - Ambulance purchase	0	0	0	0	0	0	161,000	0	0	0
AMB000-2027-01 - Ambulance purchase	0	0	0	0	0	0	0	164,000	0	0
AMB000-2028-01 - Ambulance purchase	0	0	0	0	0	0	0	0	167,000	0
AMB000-2028-02 - Ambulance purchase	0	0	0	0	0	0	0	0	167,000	0
AMB000-2029-01 - Ambulance purchase	0	0	0	0	0	0	0	0	0	170,000
Total: 1600421 - Ambulance	145,000	145,000	298,000	152,000	155,000	158,000	161,000	164,000	334,000	170,000
1600421 - Vehicles - Licensed										
AMB000-2020-02 - Support Vehicle	90,000	0	0	0	0	0	0	0	0	0
AMB000-2022-06 - Support vehicle	0	0	94,000	0	0	0	0	0	0	0
AMB000-2024-02 - Support vehicle	0	0	0	0	98,000	0	0	0	0	0
AMB000-2028-11 - Support Vehicle	0	0	0	0	0	0	0	0	106,000	0
GMAC00-2020-01 - Pickup	31,000	0	0	0	0	0	0	0	0	0
GMAC00-2020-02 - Pickup Truck not required per AMP	31,000	0	0	0	0	0	0	0	0	0
GMAC00-2020-03 - One Ton Truck - 1 of 2	95,000	0	0	0	0	0	0	0	0	0
GMAC00-2020-04 - One Ton Truck - 2 of 2	95,000	0	0	0	0	0	0	0	0	0
GMAC00-2020-05 - Loader	237,000	0	0	0	0	0	0	0	0	0

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### 10 Year Capital Forecast - Detail by Asset Category

GMAC00-2021-01 - Pickup - 1 of 2	0	31,500	0	0	0	0	0	0	0	0
GMAC00-2021-02 - One Tonne Crew cab per AMP - to replace 2008	0	96,000	0	0	0	0	0	0	0	0
GMAC00-2021-03 - Tandem with Plow	0	283,000	0	0	0	0	0	0	0	0
GMAC00-2021-04 - Tractor backhoe - 4x4	0	183,000	0	0	0	0	0	0	0	0
GMAC00-2022-01 - Pickup	0	0	32,000	0	0	0	0	0	0	0
GMAC00-2022-02 - Tandem with Plow	0	0	288,000	0	0	0	0	0	0	0
GMAC00-2022-03 - Gradall	0	0	530,000	0	0	0	0	0	0	0
GMAC00-2023-01 - Administration Van	0	0	0	32,500	0	0	0	0	0	0
GMAC00-2023-02 - Tandem with Plow	0	0	0	292,000	0	0	0	0	0	0
GMAC00-2023-03 - Grader	0	0	0	414,000	0	0	0	0	0	0
GMAC00-2024-01 - Pickup - 1 of 2	0	0	0	0	33,000	0	0	0	0	0
GMAC00-2024-02 - Pickup - 2 of 2	0	0	0	0	33,000	0	0	0	0	0
GMAC00-2024-03 - Tandem with Plow	0	0	0	0	296,000	0	0	0	0	0
GMAC00-2024-04 - Loader	0	0	0	0	247,000	0	0	0	0	0
GMAC00-2025-01 - Pickup	0	0	0	0	0	33,500	0	0	0	0
GMAC00-2025-02 - Tandem with Plow	0	0	0	0	0	301,000	0	0	0	0
GMAC00-2025-03 - Tractor backhoe - 4x4	0	0	0	0	0	191,000	0	0	0	0
GMAC00-2025-04 - 20 Ton Tag-a-long	0	0	0	0	0	30,000	0	0	0	0
GMAC00-2026-01 - Pickup	0	0	0	0	0	0	34,000	0	0	0
GMAC00-2026-02 - Pickup	0	0	0	0	0	0	34,000	0	0	0
GMAC00-2026-03 - One tonne truck to replace 2016	0	0	0	0	0	0	104,000	0	0	0
GMAC00-2026-04 - Tandem with Plow	0	0	0	0	0	0	305,000	0	0	0
GMAC00-2027-02 - Tandem with Plow	0	0	0	0	0	0	0	310,000	0	0
GMAC00-2027-03 - Steamer	0	0	0	0	0	0	0	15,000	0	0
GMAC00-2028-01 - Tandem with Plow	0	0	0	0	0	0	0	0	314,000	0
GMAC00-2028-02 - Pickup - 1 of 2	0	0	0	0	0	0	0	0	35,000	0
GMAC00-2028-03 - Pickup - 2 of 2	0	0	0	0	0	0	0	0	35,000	0
GMAC00-2029-03 - One tonne to replace 2018	0	0	0	0	0	0	0	0	0	108,000
GMAC00-2029-04 - 7 Ton Tag-a-long	0	0	0	0	0	0	0	0	0	12,000
Total: 1600421 - Vehicles - Licensed	579,000	593,500	944,000	738,500	707,000	555,500	477,000	325,000	490,000	120,000
<b>Total: 1600421 - Vehicles - Licensed</b>	<b>724,000</b>	<b>738,500</b>	<b>1,242,000</b>	<b>890,500</b>	<b>862,000</b>	<b>713,500</b>	<b>638,000</b>	<b>489,000</b>	<b>824,000</b>	<b>290,000</b>
<b>1600441 - Vehicles - Unlicensed</b>										

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1600441 - Vehicles - Unlicensed											
GMAC00-2020-06 - Road closures trailer	11,000	0	0	0	0	0	0	0	0	0	0
GMAC00-2021-05 - Snow blower attachment	0	60,000	0	0	0	0	0	0	0	0	0
GMAC00-2021-06 - Plow and sander for 1 tonne	0	20,000	0	0	0	0	0	0	0	0	0
GMAC00-2029-01 - Loader	0	0	0	0	0	0	0	0	0	0	260,000
Total: 1600441 - Vehicles - Unlicensed	11,000	80,000	0	0	0	0	0	0	0	0	260,000
<b>Total: 1600441 - Vehicles - Unlicensed</b>	<b>11,000</b>	<b>80,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>260,000</b>
1600461 - Vehicles - Trailers											
1600461 - Vehicles - Trailers											
GMAC00-2020-07 - Hot box trailer	40,000	0	0	0	0	0	0	0	0	0	0
GMAC00-2029-02 - Water Tank - Large	0	0	0	0	0	0	0	0	0	0	15,000
Total: 1600461 - Vehicles - Trailers	40,000	0	0	0	0	0	0	0	0	0	15,000
<b>Total: 1600461 - Vehicles - Trailers</b>	<b>40,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15,000</b>
1600721 - Linear - Bridges											
1600721 - 1 Lane Bridge											
013034-2020-01 - CR 13 - Hawk Lake Road Bridge Repair	1,250,000	0	0	0	0	0	0	0	0	0	0
020077-2028-01 - CR 20 - Horseshoe Lake Bridge repair	0	0	0	0	0	0	0	0	1,540,000	0	0
02RAIL-2024-01 - Rail Trail - Gelert Railway Bridge	0	0	0	0	150,000	0	0	0	0	0	0
Total: 1600721 - 1 Lane Bridge	1,250,000	0	0	0	150,000	0	0	0	1,540,000	0	0
1600721 - 2 Lane Bridge											
001137-2020-01 - CR 01 - Drag River Bridge restoration	60,000	0	0	0	0	0	0	0	0	0	0
001137-2022-01 - CR 01 - Drag River Bridge restoration	0	0	640,000	0	0	0	0	0	0	0	0
006063-2020-01 - CR 06 - Eagle Lake Road Bridge Rehabilitation	525,000	0	0	0	0	0	0	0	0	0	0
008019-2025-01 - CR 08 - Hollow River Bridge	0	0	0	0	0	95,000	0	0	0	0	0
009017-2022-01 - CR 09 - Paudash Lake Bridge	0	0	80,000	0	0	0	0	0	0	0	0
009017-2027-01 - CR 09 - Paudash Lake Bridge	0	0	0	0	0	0	0	120,000	0	0	0
018011-2023-01 - CR 18 - Ingoldsby Bridge	0	0	0	205,000	0	0	0	0	0	0	0
503069-2023-01 - CR 503 - Furnace Falls Bridge	0	0	0	70,000	0	0	0	0	0	0	0
507001-2022-01 - CR 507 - Gooderham Bridge	0	0	105,000	0	0	0	0	0	0	0	0
507001-2027-01 - CR 507 - Gooderham Bridge	0	0	0	0	0	0	0	52,000	0	0	0
648080-2023-01 - CR 648 - Dark Lake Bridge	0	0	0	270,000	0	0	0	0	0	0	0
Total: 1600721 - 2 Lane Bridge	585,000	0	825,000	545,000	0	95,000	0	172,000	0	0	0

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<b>Total: 1600721 - Linear - Bridges</b>	<b>1,835,000</b>	<b>0</b>	<b>825,000</b>	<b>545,000</b>	<b>150,000</b>	<b>95,000</b>	<b>0</b>	<b>172,000</b>	<b>1,540,000</b>	<b>0</b>
<b>1600741 - Linear - Culverts</b>										
1600741 - Culverts										
003135-2024-01 - CR 03 - Bluehawk Lake Culvert	0	0	0	0	25,000	0	0	0	0	0
003135-2025-01 - CR 03 - Bluehawk Lake Culvert	0	0	0	0	0	300,000	0	0	0	0
004042-2021-01 - CR 04 - Esson Lake Culvert	0	20,000	0	0	0	0	0	0	0	0
007063-2029-01 - CR 07 - Pivot Lake Culvert	0	0	0	0	0	0	0	0	0	50,000
009061-2020-01 - CR 09 - McGillvray Road Culvert	25,000	0	0	0	0	0	0	0	0	0
009061-2024-01 - CR 09 - McGillvary Road Culvert	0	0	0	0	300,000	0	0	0	0	0
009064-2020-01 - CR 09 - Inlet Bay Culvert	25,000	0	0	0	0	0	0	0	0	0
009064-2026-01 - CR 09 - Inlet Bay Culvert	0	0	0	0	0	0	300,000	0	0	0
010094-2029-01 - CR 10 - Fishtail Lake Road Culvert	0	0	0	0	0	0	0	0	0	315,000
014083-2021-01 - CR 14 - Haliburton Lake Road Culvert	0	10,000	0	0	0	0	0	0	0	0
503054-2020-01 - CR 503 - Box Culvert	50,000	0	0	0	0	0	0	0	0	0
503054-2021-01 - CR 503 - Box Culvert	0	500,000	0	0	0	0	0	0	0	0
503150-2022-01 - CR 503 - Bark Creek Culvert	0	0	25,000	0	0	0	0	0	0	0
503214-2024-01 - CR 503 - County Road 503 Culvert	0	0	0	0	25,000	0	0	0	0	0
648225-2021-01 - CR 648 - Hudson Creek Culvert	0	40,000	0	0	0	0	0	0	0	0
648287-2021-01 - CR 648 - Lower Cup Lake Culvert	0	450,000	0	0	0	0	0	0	0	0
<b>Total: 1600741 - Culverts</b>	<b>100,000</b>	<b>1,020,000</b>	<b>25,000</b>	<b>0</b>	<b>350,000</b>	<b>300,000</b>	<b>300,000</b>	<b>0</b>	<b>0</b>	<b>365,000</b>
<b>Total: 1600741 - Linear - Culverts</b>	<b>100,000</b>	<b>1,020,000</b>	<b>25,000</b>	<b>0</b>	<b>350,000</b>	<b>300,000</b>	<b>300,000</b>	<b>0</b>	<b>0</b>	<b>365,000</b>
<b>1600761 - Linear - Roads - Base &amp; Surface</b>										
1600761 - Class 3 Road										
CR0007-2021-02 - CR 7 - Kennisis Lake Road - Section 7062 - 4700 m	0	24,000	0	0	0	0	0	0	0	0
CR0007-2025-01 - CR 7 - Kennisis Lake Road - Section 7115 - 6600 m	0	0	0	0	0	249,000	0	0	0	0
CR0021-2025-01 - CR 21 - County Road 21 - Section 21000 - 7400 m	0	0	0	0	0	1,406,000	0	0	0	0
CR0021-2026-01 - CR 21 - County Road 21 - Section 21074 - 5300 m	0	0	0	0	0	0	1,007,000	0	0	0
CR0021-2026-02 - CR 21 - County Road 21 - Section 21127 - 2500 m	0	0	0	0	0	0	475,000	0	0	0
CR0021-2027-01 - CR 21 - County Road 21 - Section 21152 - 4600 m	0	0	0	0	0	0	0	874,000	0	0
CR0021-2029-01 - CR 21 - County Road 21 - Section 21214 - 900 m	0	0	0	0	0	0	0	0	0	171,000
CR0021-2029-02 - CR 21 - County Road 21 - Section 21223 - 100 m	0	0	0	0	0	0	0	0	0	19,000
CR0121-2028-01 - CR 121 - County Road 121 - Section 121000 - 5000 m	0	0	0	0	0	0	0	0	950,000	0

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CR0503-2020-01 - CR 503 - County Road 503 - Section 503258 - 6000 m	110,000	0	0	0	0	0	0	0	0	0	0
CR0503-2021-01 - CR 503 - County Road 503 - Section 503258 - 6000 m	0	36,000	0	0	0	0	0	0	0	0	0
CR0503-2023-01 - CR 503 - County Road 503 - Section 503000 - 6000 m	0	0	0	1,725,000	0	0	0	0	0	0	0
CR0503-2029-01 - CR 503 - County Road 503 - Section 503327 - 4700 m	0	0	0	0	0	0	0	0	0	227,000	0
CR0503-2029-02 - CR 503 - County Road 503 - Section 503374 - 400 m	0	0	0	0	0	0	0	0	0	0	19,000
PRESOT-2022-01 - Preservation - unallocated	0	0	190,000	0	0	0	0	0	0	0	0
PRESOT-2023-01 - Preservation - unallocated	0	0	0	190,000	0	0	0	0	0	0	0
PRESOT-2024-01 - Preservation - unallocated	0	0	0	0	190,000	0	0	0	0	0	0
PRESOT-2025-01 - Preservation - unallocated	0	0	0	0	0	190,000	0	0	0	0	0
PRESOT-2026-01 - Preservation - unallocated	0	0	0	0	0	0	190,000	0	0	0	0
PRESOT-2027-01 - Preservation - unallocated	0	0	0	0	0	0	0	190,000	0	0	0
PRESOT-2028-01 - Preservation - unallocated	0	0	0	0	0	0	0	0	190,000	0	0
PRESOT-2029-01 - Preservation - unallocated	0	0	0	0	0	0	0	0	0	0	190,000
Total: 1600761 - Class 3 Road	110,000	60,000	190,000	1,915,000	190,000	1,845,000	1,672,000	1,064,000	1,140,000	626,000	
1600761 - Class 4 Road											
CR0001-2020-01 - CR 1 - Gelert Road - Section 1000 - 5000 m	374,000	0	0	0	0	0	0	0	0	0	0
CR0001-2020-02 - CR 1 - Gelert Road - Section 1095 - 3400 m	850,000	0	0	0	0	0	0	0	0	0	0
CR0001-2020-03 - CR 1 - Gelert Road - Section 1129 - 9100 m	2,275,000	0	0	0	0	0	0	0	0	0	0
CR0001-2021-01 - CR 1 - Gelert Road - Section 1220 - 4400 m	0	93,000	0	0	0	0	0	0	0	0	0
CR0001-2022-01 - CR 1 - Gelert Road - Section 1050 - 4500 m	0	0	855,000	0	0	0	0	0	0	0	0
CR0001-2028-01 - CR 1 - Gelert Road - Section 1307 - 400 m	0	0	0	0	0	0	0	0	76,000	0	0
CR0001-2028-02 - CR 1 - Gelert Road - Section 1311 - 500 m	0	0	0	0	0	0	0	0	95,000	0	0
CR0001-2028-03 - CR 1 - Gelert Road - Section 1316 - 100 m	0	0	0	0	0	0	0	0	19,000	0	0
CR0003-2021-01 - CR 3 - Glamorgan Road - Section 3131 - 3700 m	0	925,000	0	0	0	0	0	0	0	0	0
CR0003-2024-01 - CR 3 - Glamorgan Road - Section 3032 - 3000 m	0	0	0	0	570,000	0	0	0	0	0	0
CR0003-2024-02 - CR 3 - Glamorgan Road - Section 3062 - 5100 m	0	0	0	0	969,000	0	0	0	0	0	0
CR0003-2024-03 - CR 3 - Glamorgan Road - Section 3113 - 1800 m	0	0	0	0	342,000	0	0	0	0	0	0
CR0003-2027-01 - CR 3 - Glamorgan Road - Section 3032 - 3000 m	0	0	0	0	0	0	0	113,000	0	0	0
CR0003-2027-02 - CR 3 - Glamorgan Road - Section 3062 - 5100 m	0	0	0	0	0	0	0	193,000	0	0	0
CR0003-2027-03 - CR 3 - Glamorgan Road - Section 3113 - 1800 m	0	0	0	0	0	0	0	68,000	0	0	0
CR0006-2026-01 - CR 6 - Eagle Lake Road - Section 6000 - 6400 m	0	0	0	0	0	0	242,000	0	0	0	0
CR0007-2021-01 - CR 7- Kennisis Lake Road - Section 7002 - 600 m	0	150,000	0	0	0	0	0	0	0	0	0

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CR0014-2025-01 - CR 14 - Haliburton Lake Road - Section 14000 - 7700 m	0	0	0	0	0	291,000	0	0	0	0
CR0014-2025-02 - CR 14 - Haliburton Lake Road - Section 14077 - 800 m	0	0	0	0	0	30,000	0	0	0	0
CR0016-2022-01 - CR 16 - South Lake Road - Section 16000 - 1500 m	0	0	375,000	0	0	0	0	0	0	0
CR0016-2022-02 - CR 16 - South Lake Road - Section 16015 - 2000 m	0	0	500,000	0	0	0	0	0	0	0
CR0016-2029-01 - CR 16 - South Lake Road - Section 16035 - 2000 m	0	0	0	0	0	0	0	0	0	1,025,000
CR0507-2024-01 - CR 507 - Buckhorn Road - Section 507002 - 3500 m	0	0	0	0	132,000	0	0	0	0	0
CR0507-2024-02 - CR 507 - Buckhorn Road - Section 507037 - 3100 m	0	0	0	0	117,000	0	0	0	0	0
CR0648-2020-01 - CR 648 - Loop Road - Section 648146 - 1300 m	21,000	0	0	0	0	0	0	0	0	0
CR0648-2020-02 - CR 648 - Loop Road - Section 648159 - 1600 m	26,000	0	0	0	0	0	0	0	0	0
CR0648-2025-01 - CR 648 - Loop Road - Section 648203 - 2000 m	0	0	0	0	0	392,000	0	0	0	0
CR0648-2026-01 - CR 648 - Loop Road - Section 648223 - 9500 m	0	0	0	0	0	0	359,000	0	0	0
CR0648-2027-01 - CR 648 - Loop Road - Section 648000 - 5500 m	0	0	0	0	0	0	0	1,045,000	0	0
CR0648-2029-01 - CR 648 - Loop Road - Section 648078 - 6800 m	0	0	0	0	0	0	0	0	0	329,000
Total: 1600761 - Class 4 Road	3,546,000	1,168,000	1,730,000	0	2,130,000	713,000	601,000	1,419,000	190,000	1,354,000
1600761 - Class 5 Road										
CR0002-2020-01 - CR 2 - Deep Bay Road - Section 2060 - 5600 m	212,000	0	0	0	0	0	0	0	0	0
CR0002-2020-02 - CR 2 - Deep Bay Road - Section 2116 - 2900 m	98,000	0	0	0	0	0	0	0	0	0
CR0002-2020-03 - CR 2 - Deep Bay Road - Section 2145 - 3100 m	245,000	0	0	0	0	0	0	0	0	0
CR0002-2027-01 - CR 2 - Deep Bay Road - Section 2000 - 2900 m	0	0	0	0	0	0	0	110,000	0	0
CR0002-2027-02 - CR 2 - Deep Bay Road - Section 2029 - 3400 m	0	0	0	0	0	0	0	128,000	0	0
CR0002-2028-01 - CR 2 - Deep Bay Road - Section 2060 - 5600 m	0	0	0	0	0	0	0	0	212,000	0
CR0002-2028-02 - CR 2 - Deep Bay Road - Section 2116 - 2600 m	0	0	0	0	0	0	0	0	98,000	0
CR0002-2028-03 - CR 2 - Deep Bay Road - Section 2145 - 3100 m	0	0	0	0	0	0	0	0	117,000	0
CR0004-2020-01 - CR 4 - Essonville Line - Section 4043 - 4200 m	332,000	0	0	0	0	0	0	0	0	0
CR0004-2026-01 - CR 4 - Essonville Line - Section 4023 - 2000 m	0	0	0	0	0	0	211,000	0	0	0
CR0004-2028-01 - CR 4 - Essonville Line - Section 4000 - 2300 m	0	0	0	0	0	0	0	0	87,000	0
CR0004-2028-02 - CR 4 - Essonville Line - Section 4043 - 4200 m	0	0	0	0	0	0	0	0	159,000	0
CR0005-2021-01 - CR 5 - South Baptiste Lake Road - Section 5000 - 3100 m	0	117,000	0	117,000	0	0	0	0	0	0
CR0008-2020-01 - CR 8 - Kawagama Lake Road - Section 8007 - 1100 m	42,000	0	0	0	0	0	0	0	0	0
CR0008-2020-02 - CR 8 - Kawagama Lake Road - Section 8018 - 2300 m	87,000	0	0	0	0	0	0	0	0	0
CR0008-2021-01 - CR 8 - Kawagama Lake Road - Section 8000 - 700 m	0	175,000	0	0	0	0	0	0	0	0
CR0008-2024-01 - CR 8 - Kawagama Lake Road - Section 8041 - 3900 m	0	0	0	0	147,000	0	0	0	0	0

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CR0008-2024-02 - CR 8 - Kawagama Lake Road - Section 8080 - 4100 m	0	0	0	0	155,000	0	0	0	0	0
CR0008-2024-03 - CR 8 - Kawagama Lake Road - Section 8121 - 5700 m	0	0	0	0	215,000	0	0	0	0	0
CR0009-2020-01 - CR 9 - McGillvray Road - Section 9022 - 2500 m	198,000	0	0	0	0	0	0	0	0	0
CR0009-2023-01 - CR 9 - McGillvray Road - Section 9047 - 1000 m	0	0	0	79,000	0	0	0	0	0	0
CR0009-2026-01 - CR 9 - McGillvray Road - Section 9000	0	0	0	0	0	0	83,000	0	0	0
CR0009-2026-02 - CR 9 - McGillvray Road - Section 9057 - 500 m	0	0	0	0	0	0	19,000	0	0	0
CR0009-2026-03 - CR 9 - McGillvray Road - Section 9062 - 500 m	0	0	0	0	0	0	19,000	0	0	0
CR0010-2020-01 - CR 10 - Elephant Lake Road - Section 10140 - 3800 m	459,000	0	0	0	0	0	0	0	0	0
CR0010-2021-01 - CR 10 - Elephant Lake Road - Section 10056 - 8400 m	0	506,000	0	0	0	0	0	0	0	0
CR0010-2023-01 - CR 10 - Elephant Lake Road - Section 10000 - 3100 m	0	0	0	117,000	0	0	0	0	0	0
CR0010-2023-02 - CR 10 - Elephant Lake Road - Section 10031 - 2500 m	0	0	0	94,000	0	0	0	0	0	0
CR0010-2029-01 - CR 10 - Elephant Lake Road - Section 10056 - 8400 m	0	0	0	0	0	0	0	0	0	317,000
CR0010-2029-02 - CR 10 - Elephant Lake Road - Section 10140 - 3800 m	0	0	0	0	0	0	0	0	0	144,000
CR0011-2022-01 - CR 11 - Kushog Lake Road - Section 11000 - 1200 m	0	0	95,000	0	0	0	0	0	0	0
CR0011-2022-02 - CR 11 - Kushog Lake Road - Section 11012 - 4700 m	0	0	372,000	0	0	0	0	0	0	0
CR0011-2022-03 - CR 11 - Kushog Lake Road - Section 11059 - 6800 m	0	0	538,000	0	0	0	0	0	0	0
CR0012-2020-01 - CR 12 - Livingstone Lake Road - Section 12036 - 4000 m	316,000	0	0	0	0	0	0	0	0	0
CR0012-2020-02 - CR 12 - Livingstone Lake Road - Section 12076 - 4200 m	332,000	0	0	0	0	0	0	0	0	0
CR0012-2021-01 - CR 12 - Livingstone Lake Road - Section 12174 - 4500 m	0	356,000	0	0	0	0	0	0	0	0
CR0012-2021-02 - CR 12 - Livingstone Lake Road - Section 12219 - 3200 m	0	253,000	0	0	0	0	0	0	0	0
CR0012-2021-03 - CR 12 - Livingstone Lake Road - Section 12251 - 2200 m	0	174,000	0	0	0	0	0	0	0	0
CR0012-2028-01 - CR 12 - Livingstone Lake Road - Section 12000 - 3600 m	0	0	0	0	0	0	0	0	136,000	0
CR0012-2028-02 - CR 12 - Livingstone Lake Road - Section 12036 - 4000 m	0	0	0	0	0	0	0	0	151,000	0
CR0012-2028-03 - CR 12 - Livingstone Lake Road - Section 12076 - 4200 m	0	0	0	0	0	0	0	0	159,000	0
CR0012-2028-04 - CR 12 - Livingstone Lake Road - Section 12118 - 5600 m	0	0	0	0	0	0	0	0	212,000	0
CR0012-2029-01 - CR 12 - Livingstone Lake Road - Section 12174 - 4500 m	0	0	0	0	0	0	0	0	0	170,000
CR0012-2029-02 - CR 12 - Livingstone Lake Road - Section 12219 - 3200 m	0	0	0	0	0	0	0	0	0	121,000
CR0012-2029-03 - CR 12 - Livingstone Lake Road - Section 12251 - 2200 m	0	0	0	0	0	0	0	0	0	83,000
CR0013-2021-01 - CR 13 - Little Hawk Lake Road - Section 13009 - 2700 m	0	214,000	0	0	0	0	0	0	0	0
CR0013-2023-01 - CR 13 - Little Hawk Lake Road - Section 13036 - 1500 m	0	0	0	119,000	0	0	0	0	0	0
CR0013-2029-01 - CR 13 - Little Hawk Lake Road - Section 13009 - 2700 m	0	0	0	0	0	0	0	0	0	102,000
CR0014-2025-03 - CR 14 - Haliburton Lake Road - Section 14085 - 3600 m	0	0	0	0	0	136,000	0	0	0	0

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# 10 Year Capital Forecast - Detail by Asset Category

CR0014-2025-04 - CR 14 - Haliburton Lake Road - Section 14121 - 7800 m	0	0	0	0	0	295,000	0	0	0	0
CR0015-2022-01 - CR 15 - Burleigh Road - Section 15053 - 2600 m	0	0	98,000	0	0	0	0	0	0	0
CR0015-2026-01 - CR 15 - Burleigh Road - Section 15008 - 800 m	0	0	0	0	0	0	30,000	0	0	0
CR0015-2026-02 - CR 15 - Burleigh Road - Section 15016 - 3700 m	0	0	0	0	0	0	140,000	0	0	0
CR0015-2026-03 - CR 15 - Burleigh Road - Section 15079 - 4100 m	0	0	0	0	0	0	155,000	0	0	0
CR0015-2029-01 - CR 15 - Burleigh Road - Section 15053 - 2600 m	0	0	0	0	0	0	0	0	0	98,000
CR0017-2028-01 - CR 17 - Ingoldsby Road - Section 17000 - 3750 m	0	0	0	0	0	0	0	0	142,000	0
CR0018-2021-01 - CR 18 - Kashagawigamog Lake Rd - Section 18000 - 1400 m	0	22,000	0	0	0	0	0	0	0	0
CR0018-2022-01 - CR 18 - Kashagawigamog Lake Rd - Section 18032 - 3700 m	0	0	293,000	0	0	0	0	0	0	0
CR0018-2024-01 - CR 18 - Kashagawigamog Lake Road - Section 18057 - 2000 m	0	0	0	0	158,000	0	0	0	0	0
CR0018-2024-02 - CR 18 - Kashagawigamog Lake Road - Section 18077 - 5100 m	0	0	0	0	403,000	0	0	0	0	0
CR0018-2028-01 - CR 18 - Kashagawigamog Lake Road - Section 18014 - 1800m	0	0	0	0	0	0	0	0	68,000	0
CR0019-2023-01 - CR 19 - Harburn Road - Section 19038 - 4300 m	0	0	0	340,000	0	0	0	0	0	0
CR0019-2023-02 - CR 19 - Harburn Road - Section 19081 - 2500 m	0	0	0	94,000	0	0	0	0	0	0
CR0019-2027-01 - CR 19 - Harburn Road - Section 19000 - 1200 m	0	0	0	0	0	0	0	45,000	0	0
CR0019-2027-02 - CR 19 - Harburn Road - Section 19012 - 2600 m	0	0	0	0	0	0	0	98,000	0	0
CR0019-2027-03 - CR 19 - Harburn Road - Section 19106 - 4200 m	0	0	0	0	0	0	0	159,000	0	0
CR0019-2027-04 - CR 19 - Harburn Road - Section 19148 - 3400 m	0	0	0	0	0	0	0	128,000	0	0
CR0019-2028-08 - CR 19 - Harburn Road - Section 19182 - 800 m	0	0	0	0	0	0	0	0	84,000	0
CR0020-2023-01 - CR 20 - Horseshoe Lake Road - Section 20000 - 4600 m	0	0	0	174,000	0	0	0	0	0	0
CR0020-2023-02 - CR 20 - Horseshoe Lake Road - Section 20046 - 3100 m	0	0	0	117,000	0	0	0	0	0	0
CR0020-2028-01 - CR 20 - Horseshoe Lake Road - Section 20077 - 1800 m	0	0	0	0	0	0	0	0	68,000	0
CR0048-2020-01 - CR 48 - Dyno Road - Section 48000 - 4800 m	181,000	0	0	0	0	0	0	0	0	0
CR0048-2029-01 - CR 48 - Dyno Road - Section 48000 - 4800 m	0	0	0	0	0	0	0	0	0	181,000
Total: 1600761 - Class 5 Road	2,502,000	1,817,000	1,396,000	1,251,000	1,078,000	431,000	657,000	668,000	1,693,000	1,216,000
<b>Total: 1600761 - Linear - Roads - Base &amp; Surface</b>	<b>6,158,000</b>	<b>3,045,000</b>	<b>3,316,000</b>	<b>3,166,000</b>	<b>3,398,000</b>	<b>2,989,000</b>	<b>2,930,000</b>	<b>3,151,000</b>	<b>3,023,000</b>	<b>3,196,000</b>
<b>1600781 - Linear - Recreation Trails</b>										
1600781 - Linear - Recreation Trails										
RAILCR-2020-01 - Rail Trail Resurfacing	250,000	56,100	57,225	58,370	59,535	60,725	61,940	63,175	64,440	65,730
Total: 1600781 - Linear - Recreation Trails	250,000	56,100	57,225	58,370	59,535	60,725	61,940	63,175	64,440	65,730
<b>Total: 1600781 - Linear - Recreation Trails</b>	<b>250,000</b>	<b>56,100</b>	<b>57,225</b>	<b>58,370</b>	<b>59,535</b>	<b>60,725</b>	<b>61,940</b>	<b>63,175</b>	<b>64,440</b>	<b>65,730</b>
<b>Total Expense</b>	<b>9,823,206</b>	<b>5,507,315</b>	<b>5,940,099</b>	<b>5,158,710</b>	<b>5,045,858</b>	<b>4,784,843</b>	<b>4,250,646</b>	<b>4,199,956</b>	<b>5,795,941</b>	<b>4,434,611</b>