

CORPORATION OF THE COUNTY OF HURON



ASSET MANAGEMENT PLAN

DECEMBER 2013

This document is available in alternate formats upon request.

ASSET MANAGEMENT PLAN FOR THE COUNTY OF HURON

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INTRODUCTION

The County of Huron is an upper tier municipal corporation. Huron County, Ontario's West Coast is located along the shores of Lake Huron. The County has a current population of approximately 59,300 people and covers an area of 3,402 square kilometres. This rural community is the most agriculturally productive county in Ontario, and is a leader in numerous areas of agricultural technology and innovation.

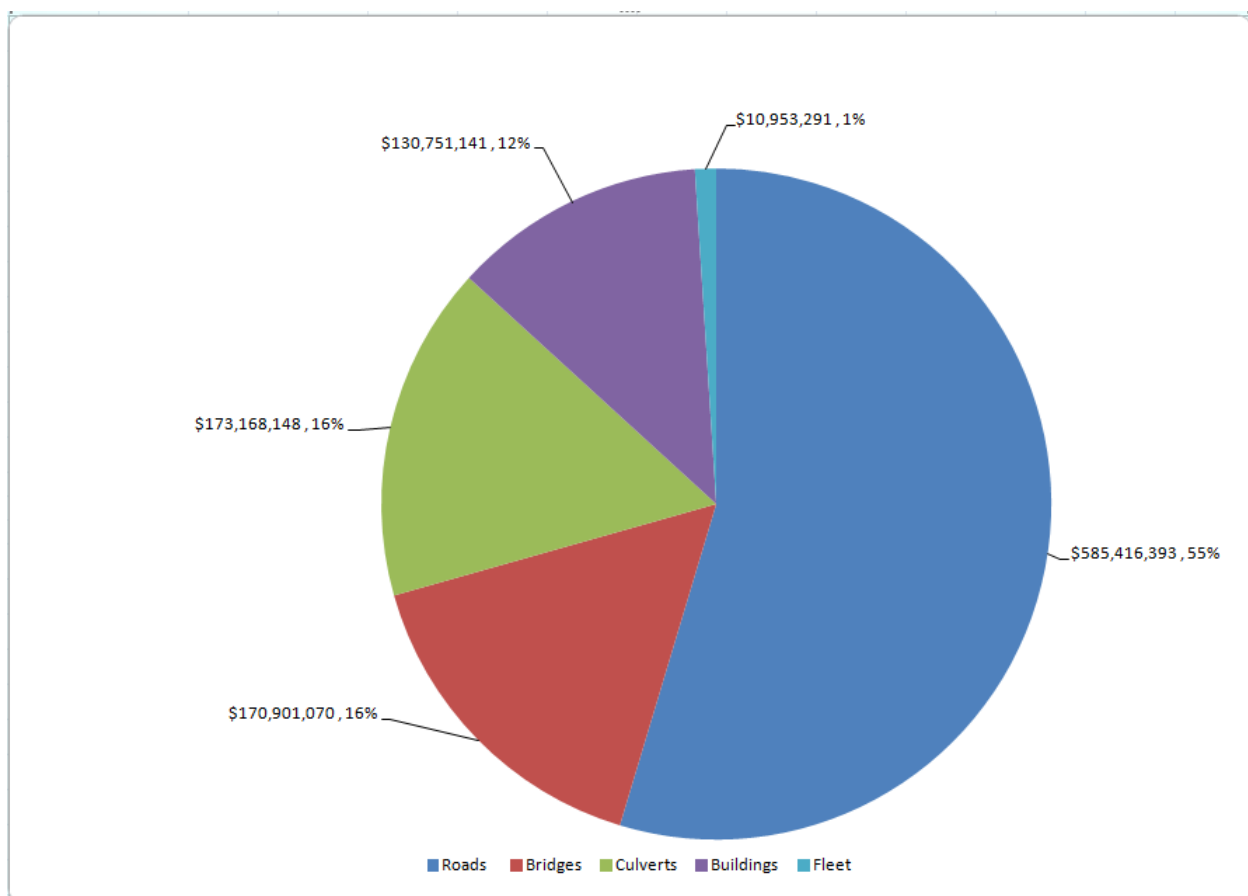
The AMP Team used The "Asset Inventory and Valuation and Asset Management Plan for Road/Bridge Network Infrastructure Building Structures, Vehicle Fleet and Equipment." (This report was presented to County's Committee of the Whole on June 17, 2008, and was moved and seconded to be received). Dillon Consulting Limited (Dillon), in association with ASi Technologies Inc. and KPMG, was engaged by the County to develop an **inventory of the County's tangible capital assets in accordance** with the Canadian Institute of Chartered Accountants Public Sector Accounting Board Section 3150 (PS 3150). The mandate also required the Dillon Team to perform a historical valuation to these same assets as well as calculate the amortized value of the assets. In addition, the County of Huron required the development of an Asset Management Plan for the short and long-term rehabilitation, reconstruction and replacement of these same tangible capital assets.

In order for the Asset Managers and SMT at the County to continue to provide an adequate level of service to their residents, it is essential to have a plan to ensure sustainability of those assets. The County currently uses the Dillon plan and makes updates to the plan. Housing and Property Services updated their plans with a building condition assessment done **September 2011 by Construction Control Inc. The County's formal plan is in** place for the maintenance, renewal and replacement of all its assets.

The infrastructure assets reviewed in this project included:

- 775 kilometres of paved roads and associated storm sewers;
- 472 bridge and culvert structures; 98 bridges with spans greater than 6 metres; 109 culverts with spans between 3 metres and 6 metres; and 265 culverts with spans between 1 metre and 3 metres
- 4 public works yards
- Housing Services 16 apartments and 84 family units
- Property Services 16 building structures
- 2 Homes for the Aged buildings
- **The County's fleet of vehicles** and other heavy machinery and equipment.
- Emergency Services fleet of vehicles.

The graph below shows the County's break down of the estimated 1 billion dollars' worth of assets in 2012 dollar replacement value.



ROADS INFRASTRUCTURE



Roads Infrastructure

What does the County own?

The County of Huron has: 33 County Roads, all 775 Kilometers are paved. The assets are located within the Roads network. All asset field assessments are carried out in the Public Works department. The results of the detailed inventory assessment of the targeted structures are summarized below.

County's inventory of Roads infrastructure in accordance with best practices and current legislation.

Roads Inventory		
Asset Type	Asset Component	Quantity
Road Surface		33
Road Base		33
		66

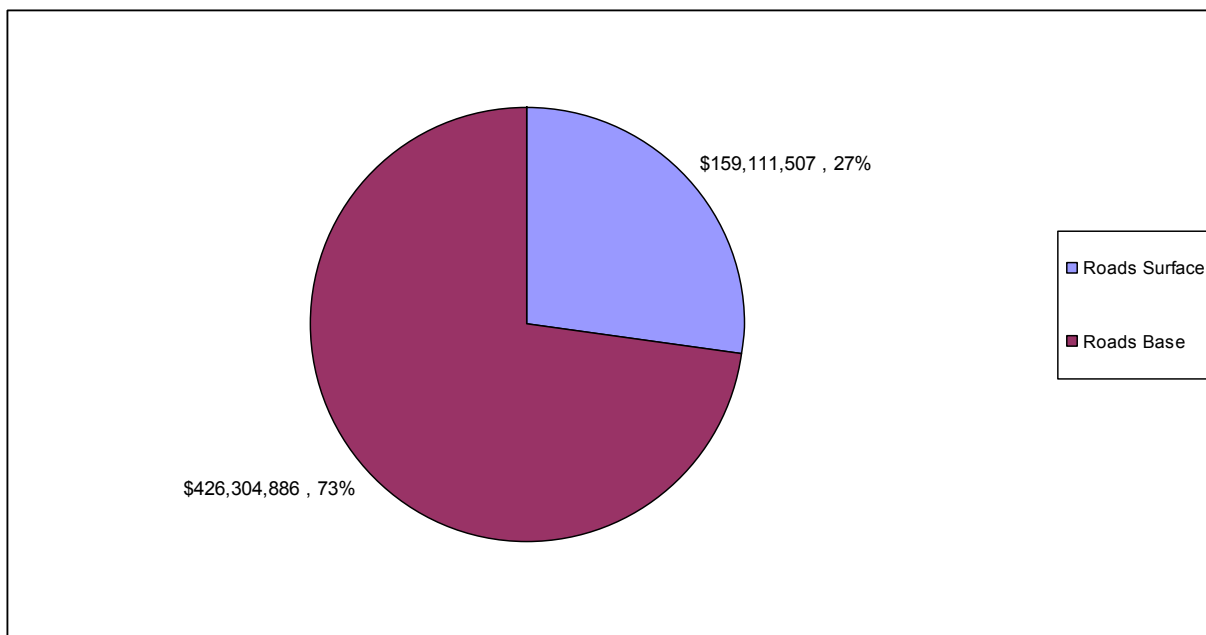
The Roads infrastructure data was compiled from the tangible capital assets module, Great Plains software.

What is it worth?

Before managing an asset, it is important to know the value of the Roads Infrastructure to determine if the maintenance dollars spent are justified to protect the asset. Based on the asset valuation process carried out as part of this assignment, the AMP Team, in consultation with staff calculated an approximation of the total estimated value of the assets of \$585.4 million.

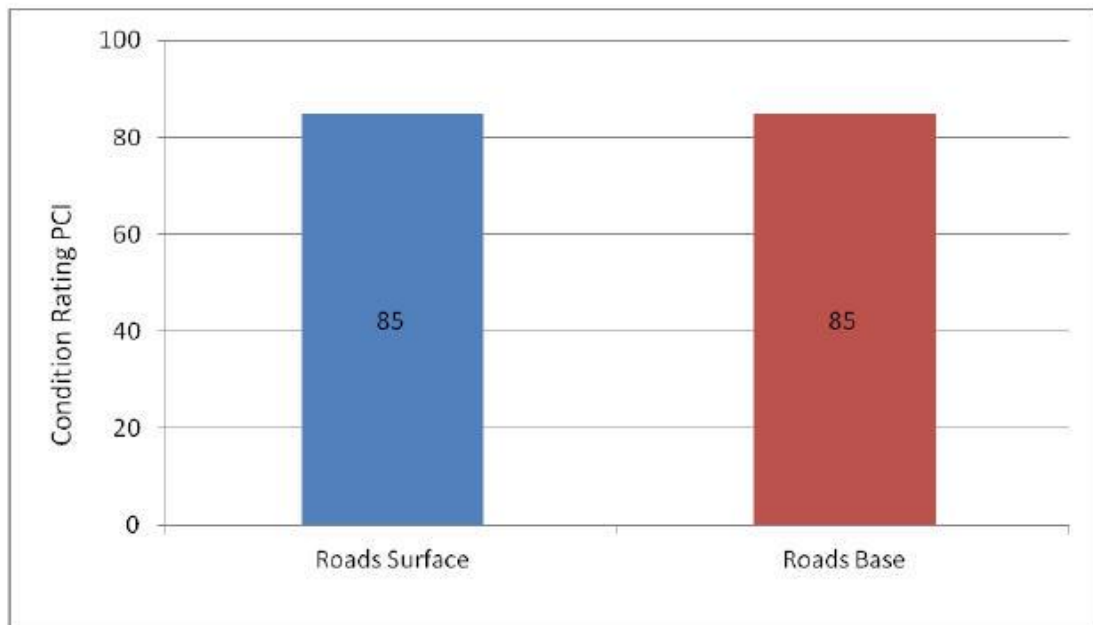
Roads Replacement Value			
Asset Type	Quantity Per Km	2012 Unit Replacement Cost	2012 Overall Replacement Cost
Road Surface	775	\$205,305	\$159,111,507
Road Base	775	\$550,071	\$426,304,886
			\$585,416,393

The pie chart below provides a breakdown of each of the Roads asset types to the overall replacement value.



What condition is it in?

Condition assessment rating was carried out on the Roads asset network, in consultation with Public Works Department using the PCI (paving condition index) to identify the level of service considered acceptable by staff. The following results were obtained: the Surface structures are in good condition and the Base structures are in good condition. The results of the detailed condition assessment of the targeted Assets are summarized below in the Graph.



The PCI condition rating relates to the age and usage of the overall structures and is a rating out of 100. When the rating is between 0 and 30 the item needs to be replaced. The **PCI (Pavement Condition Index)** rating is a combination of the RCR (**Ride Comfort Rating**) and DMI (**Distress Manifestation Index**). The RCR can be gathered through a subjective method (drive through at posted speed). The DMI is calculated by combining the density and severity of all distresses. The PCI rating was reported on a scale from 0 to 100 with 100 being a road in perfect condition.

The rating system is as follows:

Excellent:	90– 100	No evident defects
Good:	70 – 89	Slight decline
Fair:	50– 69	Decline asset apparent
Poor:	30– 49	Severe decline or failure

What do we need to do it?

Addressing Asset Needs		
Assets	Needs 1-5 yrs	Needs 6-10 yrs
Roads Surface	\$36,849,000	\$35,894,000
Roads Base	\$0	\$0
	\$36,849,000	\$35,894,000

When do we need to do it?

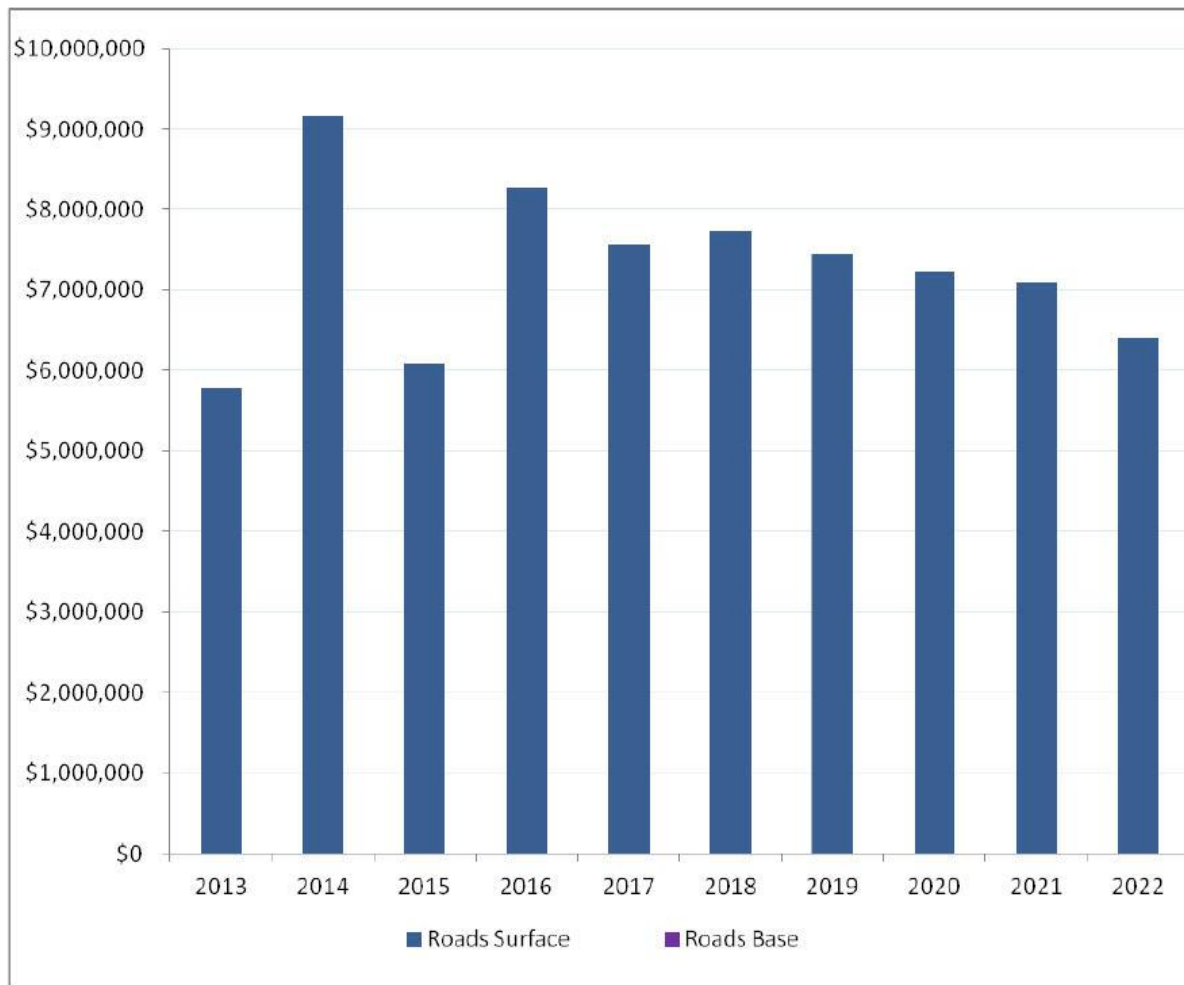
One criterion critical to rating the roads structure for the purposes of developing the AMP is the service life of the structure and its elements. As assets age, infrastructure managers must use experience and judgment to decide when maintenance is no longer cost effective thereby requiring that the structure be replaced.

Asset Useful Life in Years		
Asset Type	Asset Component	Useful Life
Roads Surface		22
Roads Base		50

How much money do we need?

This scenario is used to analyze and determine how much money is required on a yearly basis to replace all assets as they become in need of replacement. The following Graph illustrates the results of our analysis for the Public Works Department.

Asset Replacement Summary



How do we reach sustainability?

The analysis revealed that the average yearly revenue required is **\$7,274,300 to ensure that the level of service is maintained at today's level**, over the next 10 years. The above graph also indicates that at that rate of funding the network needs are expected to be somewhat variable over the next ten years.

The tables below shows the values at 2012 net book value, which is the historical cost less depreciation. The table also shows the 2012 current value cost to replace. The table illustrates the variance between net book value and current 2012 cost. This explains the reason for Roads requiring more funding than just raising depreciation to replace assets at current value.

Roads Replacement Current Value vs Net Book Value				
Asset Type	Quantity	Useful Life	Current 2012	Net Book Value 2012
Surface	775 kilometres	22	\$159,111,507	\$66,270,753
Base	775 kilometres	75	\$426,304,886	\$1,160,457
			\$585,416,393	\$67,431,210

Recommendations

The Asset Management Plan Project managers recommend the following:

- **Consideration of selected "what if" expenditure scenarios**
- Production of a prioritized short and long term Capital Improvement Plan (CIP)
- Annual review of the Asset Management Plan
- Review every four years the Asset Management Plan policy
- Purchase software to manage and update the AMP
- Assist departments in budgeting for asset cost

Desired Levels of Service

Key Performance Indicators

Key Indicator:

Pavement Condition Index (PCI), Ride Comfort Rating (RCR), and Distress Manifestation Index (DMI)

Issue:

As roads age, they begin to deteriorate due to exposure to environmental elements such as UV damage, freeze/thaw cycles, vehicle load stresses, and oxidization. As the roads age, they become more brittle and less flexible, creating shrinkage cracks, visual defects, wheel rutting, and potholes.

Potential Impact:

Potential impacts of deteriorating roads include safety hazards, increased number of accidents, increased maintenance costs, load restrictions, poor drainage, increased liability, and increased costs of repairs.

Current Controls:

Twice weekly, patrols are carried out to monitor road conditions. If issues are detected, they are repaired immediately, or seasonally, when the Asphalt Foreman will inspect and perform test to determine PCI, DMI, and RCR. Roads have a fairly predictable life span of 18 – 22 years, and during this time, PCI evaluation is completed every 1-2 years, or more often as needs arise.

Preventative Maintenance is also carried out, and if key indicators such as repetitive occurrences of pothole repairs, or crack sealing, this can indicate an underlying issue that is further investigated by staff and/or an engineering consultant.

Roads are built and maintained to established standards, such as Ontario Provincial Standards, Transportation Association of Canada Standards, the Ontario Traffic Manuals, Canadian Highway & Bridge Design Code, and Ontario Structure Inspection Manual. Regular inspections are carried out to meet established thresholds. The established PCI threshold is 60.

Legislation is also in place as a legal framework for road and bridge maintenance. The Public Works department ensures that these requirements are met, such as road construction and maintenance conditions to meet

Minimum Maintenance Standards (MMS), as well as the Highway Traffic Act.

In addition to this, requests are received on a regular basis from tax payers, businesses, and agricultural entities for such services as seasonal road maintenance, roadside tree trimming, grass cutting, weed spraying, and garbage and debris clean-up. These requests are integrated into the regular preventative maintenance schedule to accommodate the needs of our constituents.

Action plan:

Continue with preventative maintenance and inspection. As asphalt has a fairly predictable life cycle due to the impacts of environmental elements, preventative maintenance and rehabilitation is planned and budgeted accordingly.

BRIDGE INFRASTRUCTURE



Bridge Infrastructure

What does the County own?

The County of Huron has: 98 bridge structures. The assets are located within the Bridge network. All asset field assessments are carried out in the Public Works department. The results of the detailed inventory assessment of the targeted structures are summarized below.

County's inventory of Bridge infrastructure in accordance with best practices and current legislation.

Bridge Inventory		
Asset Type	Asset Component	Quantity
Bridges		98
		98

The Bridge infrastructure data was compiled from the tangible capital assets module, Great Plains software.

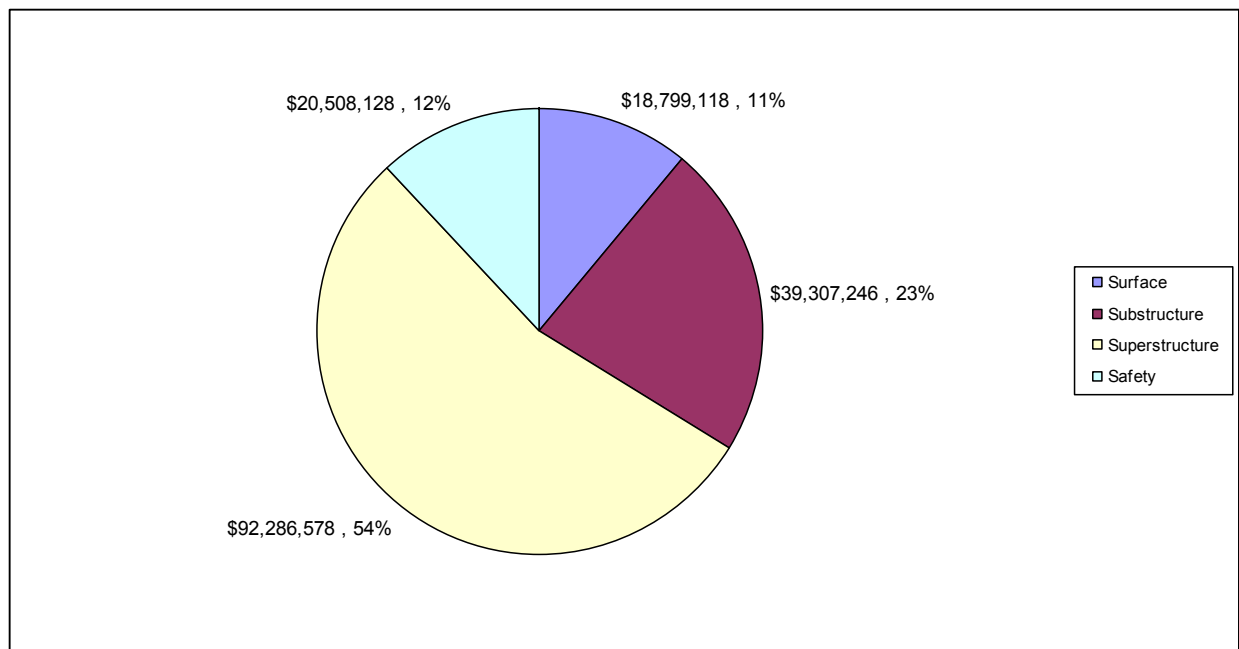
What is it worth?

Before managing an asset, it is important to know the value of the Bridge infrastructure asset to determine if the maintenance dollars spent are justified to protect the asset. Based on the asset valuation process carried out as part of this assignment, the AMP Team, in consultation with staff calculated an approximation of the total estimated value of the assets of \$171 million.

Bridges Replacement Value

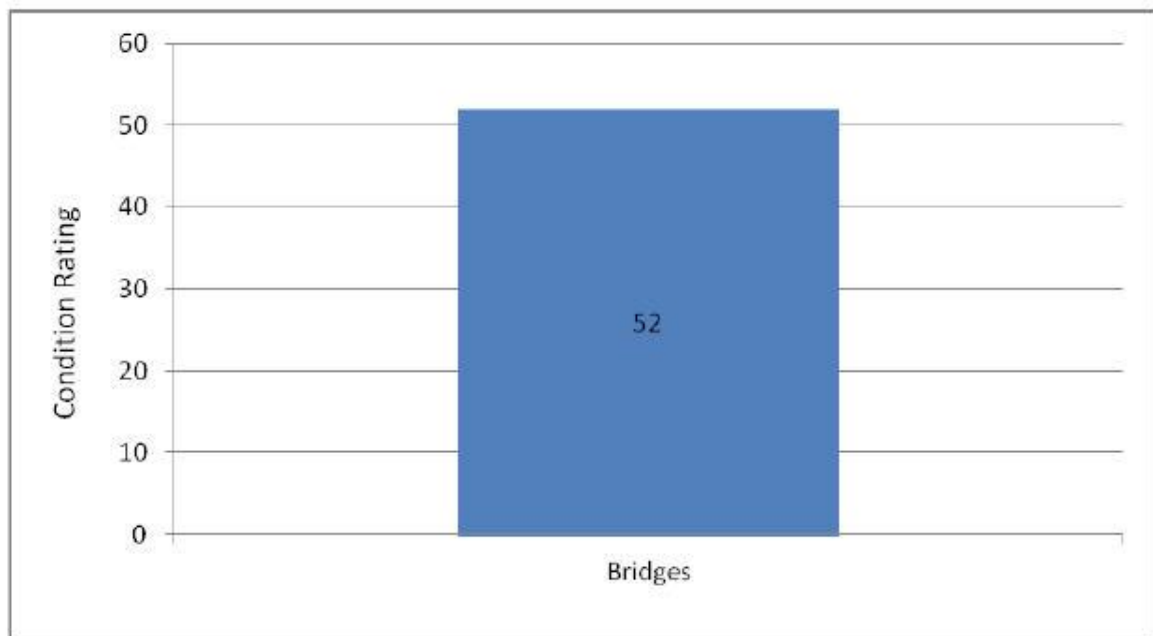
Asset Type	Quantity	2012 Unit Replacement Cost	2012 Overall Replacement Cost
Surface	98	\$191,828	\$18,799,118
Substructure	98	\$401,094	\$39,307,246
Superstructure	98	\$941,700	\$92,286,578
Safety	98	\$209,267	\$20,508,128
			\$170,901,070

The pie chart below provides a breakdown of each of the Bridge asset types to the overall replacement value.



What condition is it in?

Condition assessment rating was carried out on the Bridge infrastructure network, in consultation with Public Works Department using the BCI to identify the level of service considered acceptable by staff. The following results were obtained: The bridges are in average condition. The results of the detailed condition assessment of the targeted Assets are summarized below in the Graph.



The condition rating relates to the age and usage of the overall structure and is a rating out of 100. This rating scale is designed to encourage preventative maintenance, so a rating of 50 or less (poor) actually indicates rehabilitation or preventative maintenance should take place in the near future to maintain structure and obtain the asset lifespan, but does not indicate structural deficiencies. When the rating is between 0 and 30 the item needs to be replaced. The rating system is as follows:

Excellent:	70 and over	No evident defects
Average:	50 – 70	Slight decline
Poor:	30 – 50	Rehabilitation or preventative maintenance required
Severe:	0– 30	Severe decline or failure

What do we need to do it?

Addressing Asset Needs		
Assets	Needs 1-5 yrs	Needs 6-10 yrs
Bridges	\$7,955,000	\$7,403,332
	\$7,955,000	\$7,403,332

When do we need to do it?

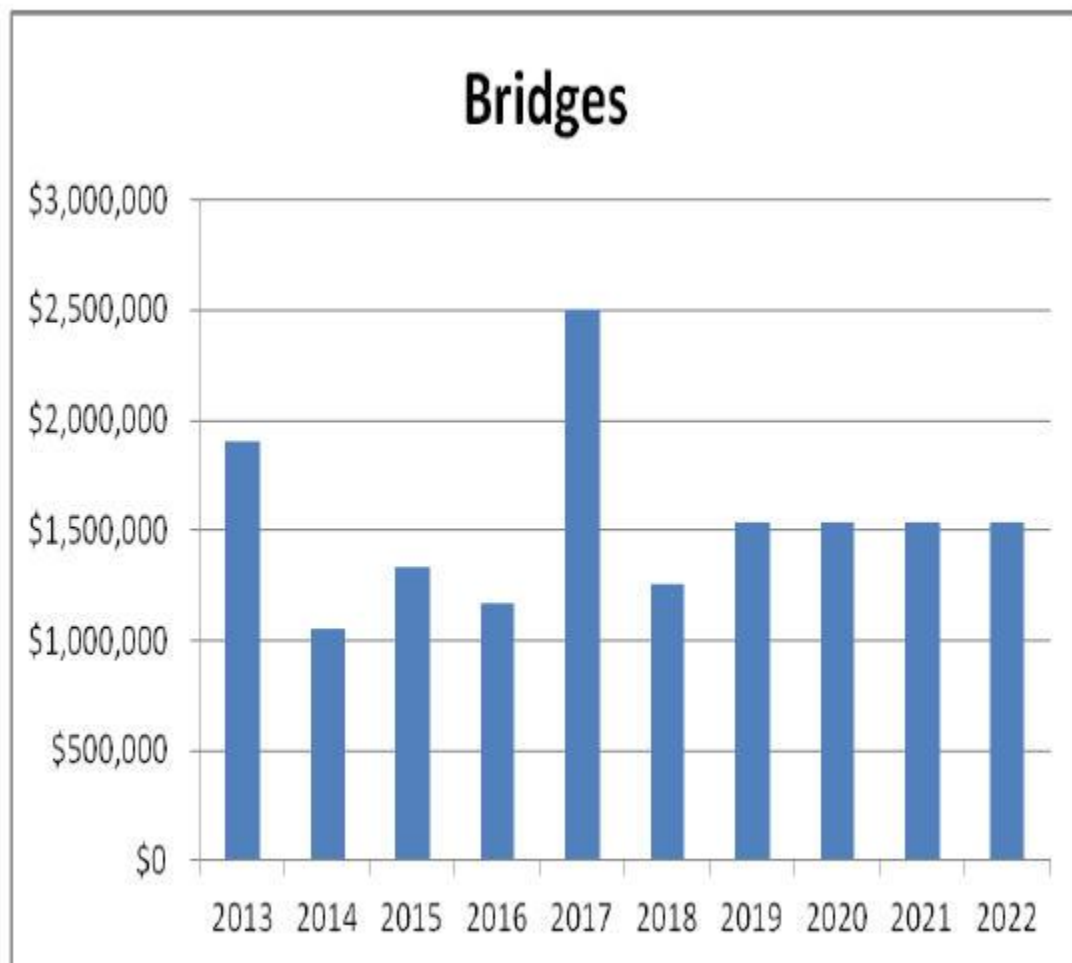
One criterion critical to rating the Bridge infrastructure for the purposes of developing the AMP is the service life of the structure and its elements. As assets age, infrastructure managers must use experience and judgment to decide when maintenance is no longer cost effective thereby requiring that the structure be replaced.

Asset Useful Life in Years		
Asset Type	Asset Component	Useful Life
Surface		22
Substructure		50
Superstructure		75
Safety		50

How much money do we need?

This scenario is used to analyze and determine how much money is required on a yearly basis to replace all assets as they become in need of replacement. The following Graph illustrates the results of our analysis for the Public Works Department.

Asset Replacement Summary



How do we reach sustainability?

The analysis revealed that the average yearly revenue required is **\$1,535,833 to ensure that the level of service is maintained at today's level**, over the next 10 years. The above graph also indicates that at that rate of funding the network needs are expected to be somewhat variable over the next ten years.

The tables below shows the values at 2012 net book value, which is the historical cost less depreciation. The table also shows the 2012 current value cost to replace. The table illustrates the variance between net book value and current 2012 cost. This explains the reason for Bridge infrastructure requiring more funding than just raising depreciation to replace assets at current value.

Bridge Replacement Current Value vs Net Book Value				
Asset Type	Quantity	Useful Life	Current 2012	Net Book Value 2012
Surface	98	22	\$18,799,118	\$801,413
Substructure	98	75	\$39,307,246	\$3,083,141
Superstructure	98	50	\$92,286,578	\$16,340,600
Safety	98	22	\$20,508,128	\$1,440,805
			\$170,901,070	\$21,665,959

Recommendations

The Asset Management Plan Project managers recommend the following:

- Consideration of selected "what if" expenditure scenarios
- Production of a prioritized short and long term Capital Improvement Plan (CIP)
- Annual review of the Asset Management Plan
- Review every four years the Asset Management Plan policy
- Purchase software to manage and update the AMP
- Assist departments in budgeting for asset cost

Desired Levels of Service

Key Performance Indicators

Key Indicator:

Bridge Condition Index (BCI)

Issue:

As bridges age, they begin to deteriorate due to exposure to environmental elements such as extended water exposure, freeze/thaw cycles, vehicle load stresses, and corrosion/oxidization. Cumulative damage leads to more expensive repairs and rehabilitation if not properly maintained.

Potential Impact:

Potential impacts of deteriorating bridges include road/bridge closures, load restrictions, safety hazards, increased number of accidents, increased maintenance costs, increased exposure to liability, and increased costs of repairs.

Current Controls:

Annual bridge cleaning and inspection is carried out on each County bridge. The bridges are pressure washed, and assessed for loose concrete. Inspections include examinations of the parapet walls, railings, expansion joints and seals, caulking, guide rail components, catch basins and drainage, bridge bearings, and various other bridge components.

Annual maintenance is carried out by Public Works personnel on small components that can be completed to bring the bridge back to standards, including caulking and patching to ensure that all components are functioning correctly. Preventative maintenance such as tree trimming around the bridge to ensure moisture evaporates from sun exposure, reducing moisture damage.

If repairs are not able to be completed in the current year, they are added to the list of maintenance and rehabilitation projects in the following year or the multi-year plan, and budgeted for accordingly.

Bridges are built and maintained to established standards, such as Ontario Provincial Standards, Transportation Association of Canada Standards, Ontario Traffic Manuals, Canadian Highway & Bridge Design Code, and Ontario Structure Inspection Manual. Regular inspections are carried out to meet established thresholds. Our BCI threshold is 50. The Ontario Structure Inspection Manual (OSIM) inspections are carried out every two years

through external engineering firms, and bridges are rated for their conditions.

In addition to this, comments and requests are received on a regular basis from tax payers, businesses, and agricultural entities for such issues as bridge repair traffic restrictions, project delays, and detour routes. These comments and requests are integrated into future plans for bridge projects and maintenance activities to accommodate the needs of our constituents.

Action plan:

Continue with preventative maintenance and inspection. Annual inspections and preventative maintenance are key to ensure that small issues are rectified before they develop into major problems that are much more costly to correct. Regular rehabilitation is normally required every 18-22 years, and rehabilitation is planned and budgeted accordingly.

CULVERTS INFRASTRUCTURE



Culverts Infrastructure

What does the County own?

The County of Huron has: 265 Culverts less than 3 metres (CULVERT<3m) and 109 Culverts greater than 3 metres (CULVERT>3m). The assets are located within the Culverts network. All asset field assessments are carried out in the Public Works department. The results of the detailed inventory assessment of the targeted structures are summarized below.

County's inventory of Culverts infrastructure in accordance with best practices and current legislation.

Culvert Inventory		
Asset Type	Asset Component	Quantity
Culvert<3m		265
Culvert>3m		109
		374

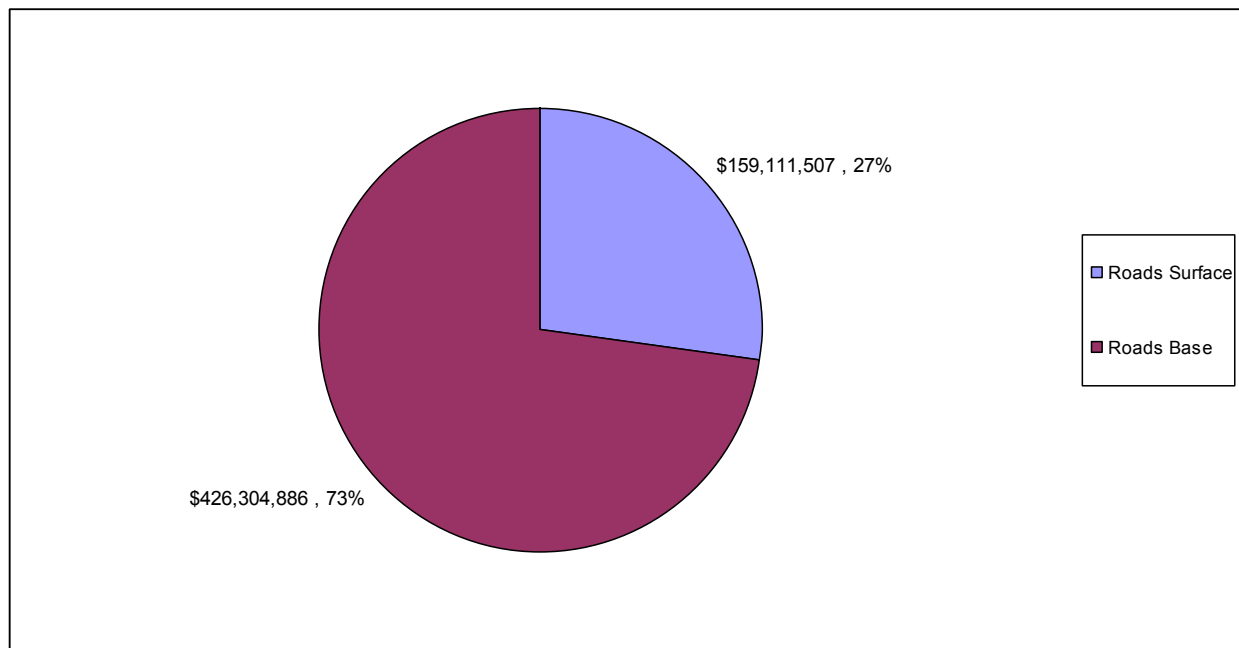
The Culverts infrastructure data was compiled from the tangible capital assets module, Great Plains software.

What is it worth?

Before managing an asset, it is important to know the value of the Culverts asset to determine if the maintenance dollars spent are justified to protect the asset. Based on the asset valuation process carried out as part of this assignment, the AMP Team, in consultation with staff calculated an approximation of the total estimated value of the assets of \$173.2 million.

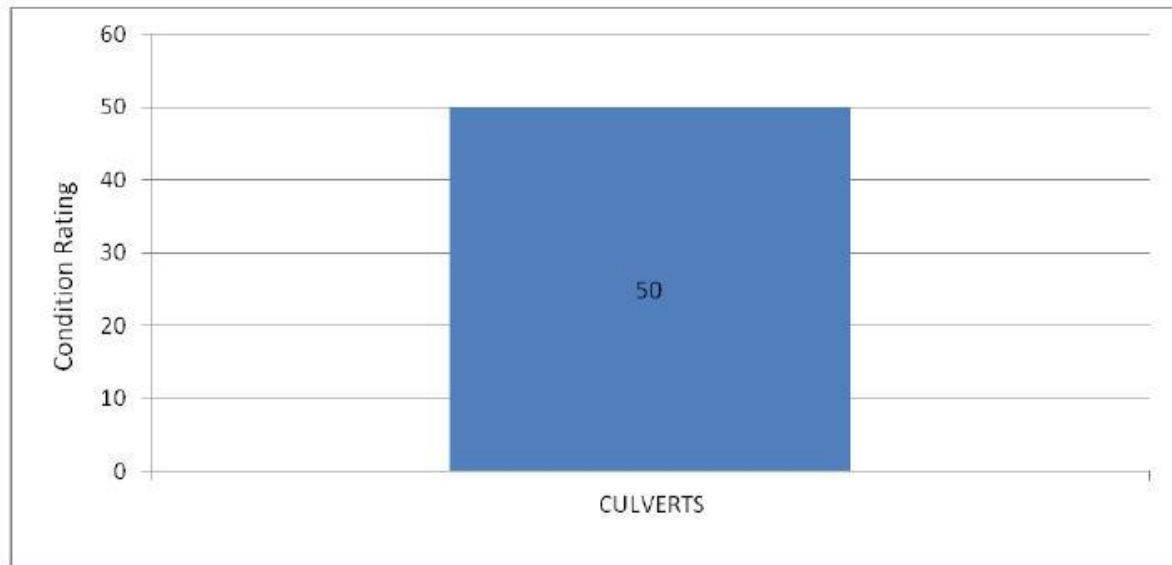
Culverts Replacement Value			
Asset Type	Quantity	2012 Unit Replacement Cost	2012 Overall Replacement Cost
Culvert<3m	265	\$502,942	\$133,279,605
Culvert>3m	109	\$365,950	\$39,888,543
			\$173,168,148

The pie chart below provides a breakdown of each of the Culvert asset types to the overall replacement value.



What condition is it in?

Condition assessment rating was carried out on the Culverts Structure network, in consultation with Public Works Department using the BCI to identify the level of service considered acceptable by staff. The following results were obtained: the Culvert > 3m structures are in average condition. The results of the detailed condition assessment of the targeted Assets are summarized below in the Graph.



The condition rating relates to the age and usage of the overall structure and is a rating out of 100. This rating scale is designed to encourage preventative maintenance, so a rating of 50 or less (poor) actually indicates rehabilitation or preventative maintenance should take place in the near future to maintain structure and obtain the asset lifespan, but does not indicate structural deficiencies. When the rating is between 0 and 30 the item needs to be replaced. Only culverts >3m are rated by engineers, culverts <3m are inspected by staff on a semi-regular basis. These personnel are trained in culvert inspection by the OGRA, and there is at least one certified employee on each patrol. The rating system for culverts >3m is as follows:

Excellent:	70 and over	No evident defects
Average:	50 – 70	Slight decline
Poor:	30 – 50	Rehabilitation or preventative maintenance required
Severe:	0– 30	Severe decline or failure

What do we need to do it?

Addressing Asset Needs		
Assets	Needs 1-5 yrs	Needs 6-10 yrs
Culverts	\$2,790,000	\$4,015,200
	\$2,790,000	\$4,015,200

When do we need to do it?

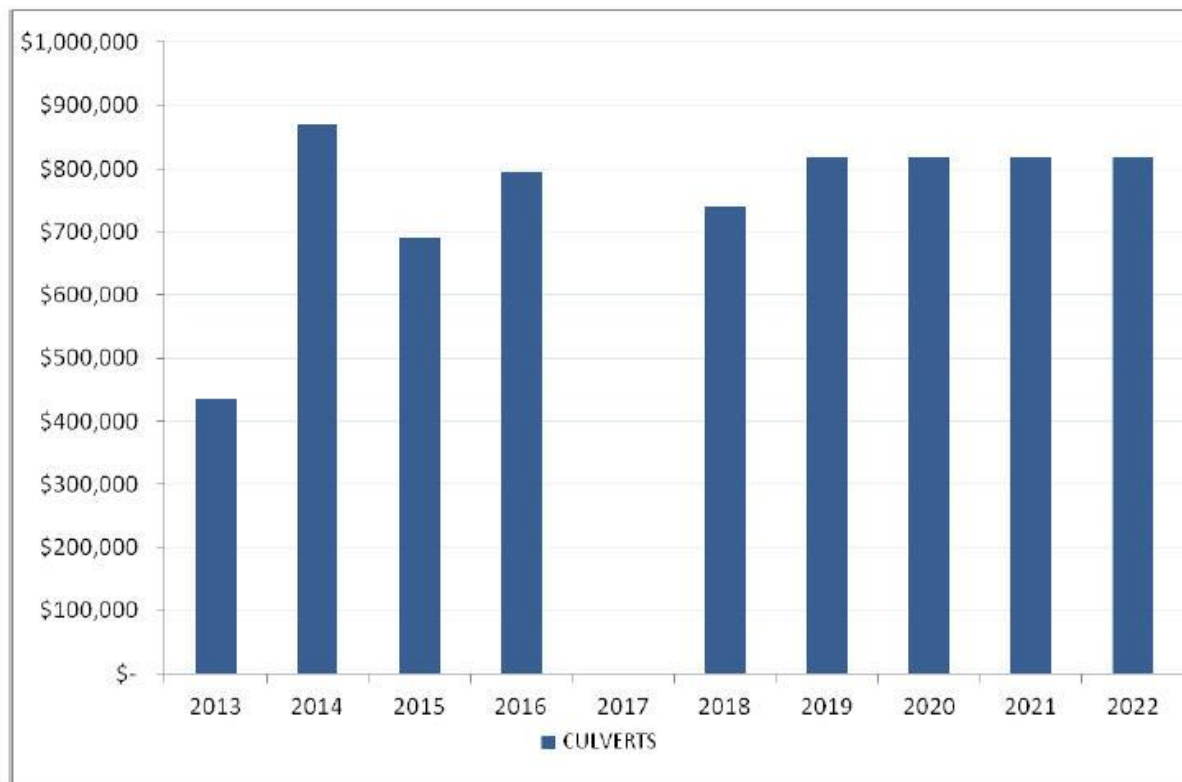
One criterion critical to rating the Culverts structure for the purposes of developing the AMP is the service life of the structure and its elements. As assets age, infrastructure managers must use experience and judgment to decide when maintenance is no longer cost effective thereby requiring that the structure be replaced.

Asset Useful Life in Years		
Asset Type	Asset Component	Useful Life
Culvert<3m		75
Culvert>3m		75

How much money do we need?

This scenario is used to analyze and determine how much money is required on a yearly basis to replace all assets as they become in need of replacement. The following Graph illustrates the results of our analysis for the Public Works Department.

Asset Replacement Summary



How do we reach sustainability?

The analysis revealed that the average yearly revenue required is \$680,520 to ensure that the level **of service is maintained at today's level, over the** next 10 years. The above graph also indicates that at that rate of funding the network needs are expected to be somewhat variable over the next ten years.

The table below shows the values at 2012 net book value, which is the historical cost less depreciation. The table also shows the 2012 current value cost to replace. The table illustrates the variance between net book value and current 2012 cost. This explains the reason for Culverts requiring more funding than just raising depreciation to replace assets at current value.

Culverts Replacement Current Value vs Net Book Value				
Asset Type	Quantity	Useful Life	Current 2012	Net Book Value 2012
CULVERT <3m	265	75	\$133,279,605	\$16,355,138
CULVERT >3m	109	75	\$39,888,543	\$3,188,812
			\$173,168,148	\$19,543,951

Recommendations

The Asset Management Plan Project managers recommend the following:

- Consideration of selected "what if" expenditure scenarios
- Production of a prioritized short and long term Capital Improvement Plan (CIP)
- Annual review of the Asset Management Plan
- Review every four years the Asset Management Plan policy
- Purchase software to manage and update the AMP
- Assist departments in budgeting for asset cost
- Inspections of culverts <3m should be recorded

Desired Levels of Service

Key Performance Indicators

Key Indicator:

Bridge Condition Index (BCI) (used for culverts >3m)

Issue:

As the culverts age, they begin to deteriorate due to exposure to environmental elements such as extended salt and water exposure, freeze/thaw cycles, and corrosion/oxidization. As concrete culverts age and defects appear, the structures have more potential for expensive repairs and rehabilitation if not properly maintained.

Potential Impact:

Potential impacts of deteriorating culverts include road closures, load restrictions, safety hazards, accidents, increased maintenance costs, liability, and increased costs of repairs.

Current Controls:

Once every two years the culverts are regularly inspected and assessed for loose concrete, corrosion, and other defects. Inspections include thorough examinations of all culvert components and subsequent work plans are developed.

Annual maintenance is carried out by Public Works personnel on small components that can be completed to bring the culvert back to design standards, including patch repair to ensure that all components are functioning as intended.

If repairs are not able to be completed in the current year, they are added to the list of maintenance and rehabilitation projects in the following year, or multi-year plan, and budgeted for accordingly.

Small culverts with 1m-3m spans are inspected by staff on an as-needed basis. These staff are trained through the OGRA Culvert Inspection course, and there is at least one trained employee on each patrol.

Culverts with 3m-6m spans are built and maintained to established standards, such as Canadian Highway and Bridge Design Code, and inspected per the Ontario Structure Inspection Manual. Regular inspections are carried out to meet established thresholds. The BCI threshold is 50. Ontario Structure Inspection Manual (OSIM) inspections are carried out

every two years through external engineering firms, and the culverts are rated for their conditions.

Legislation is also in place as a legal framework for culverts maintenance, much the same as bridges. The Public Works department ensures that these requirements are met, such as capital programs and maintenance activities to meet Minimum Maintenance Standards (MMS), as well as the Highway Traffic Act.

In addition to this, comments and requests are received on a regular basis from tax payers, businesses, and agricultural entities for such issues as structure repair work, traffic restrictions, project delays, and detour routes. These comments and requests are integrated into future plans for culvert projects and maintenance activities to accommodate the needs of our constituents.

Action plan:

Continue with preventative maintenance and inspection. Annual inspections and preventative maintenance are key to ensure that small issues are rectified before they develop into major problems that are much more costly to correct. Regular rehabilitation is normally required every 18-22 years, and rehabilitation is planned and budgeted accordingly.

PUBLIC WORKS BUILDINGS INFRASTRUCTURE



Public Works Buildings Infrastructure

What does the County own?

The County of Huron has: Public Works 4 patrol yards. Within the patrol yards include salt and sand storage buildings, office/maintenance buildings. The assets are located within the Public Works Buildings network. All asset field assessments are carried out in the Public Works department. The results of the detailed inventory assessment of the targeted structures are summarized below.

County's inventory of Public Works Buildings infrastructure in accordance with best practices and current legislation.

PW Buildings Inventory		
Asset Type	Asset Component	Quantity
AUBURN WORKS YARD	storage, maintenance, office buildings	1
WINGHAM WORKS YARD	storage, maintenance, office buildings	1
WROXETER WORKS YARD	storage, maintenance, office buildings	1
ZURICH WORKS YARD	storage, maintenance, office buildings	1
		4

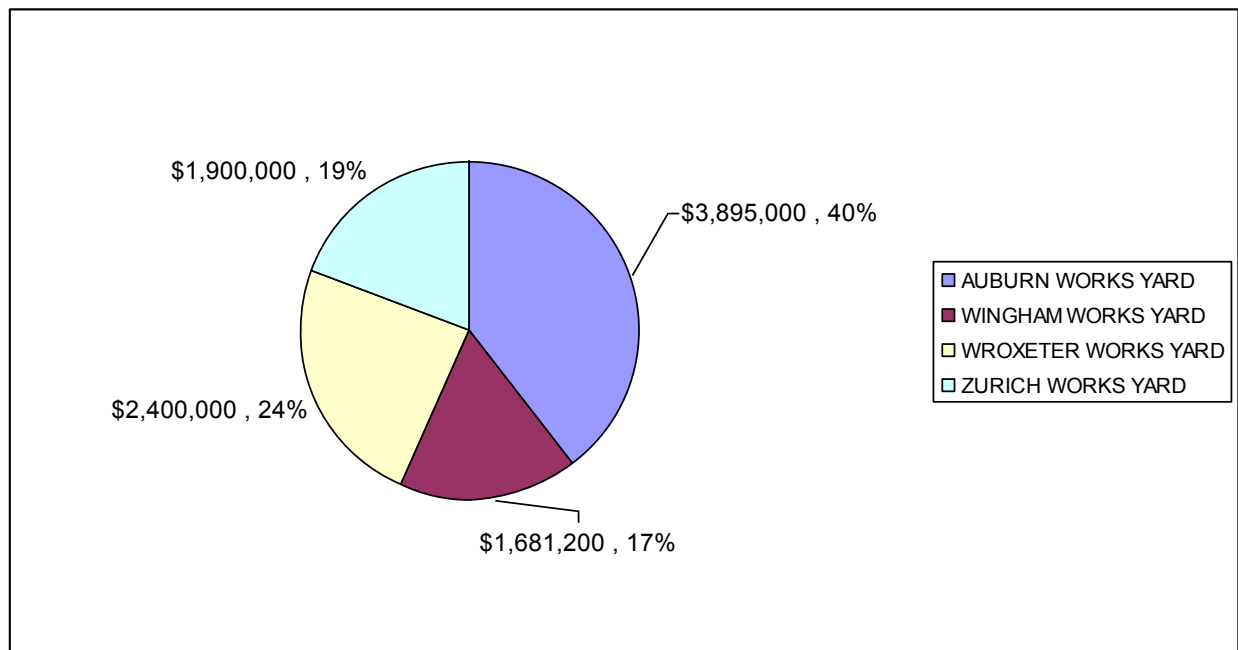
The Public Works Buildings infrastructure data was compiled from the tangible capital assets module, Great Plains software.

What is it worth?

Before managing an asset, it is important to know the value of the Public Works Buildings asset to determine if the maintenance dollars spent are justified to protect the asset. Based on the asset valuation process carried out as part of this assignment, the AMP Team, in consultation with staff calculated an approximation of the total estimated value of the assets of \$9.9 million.

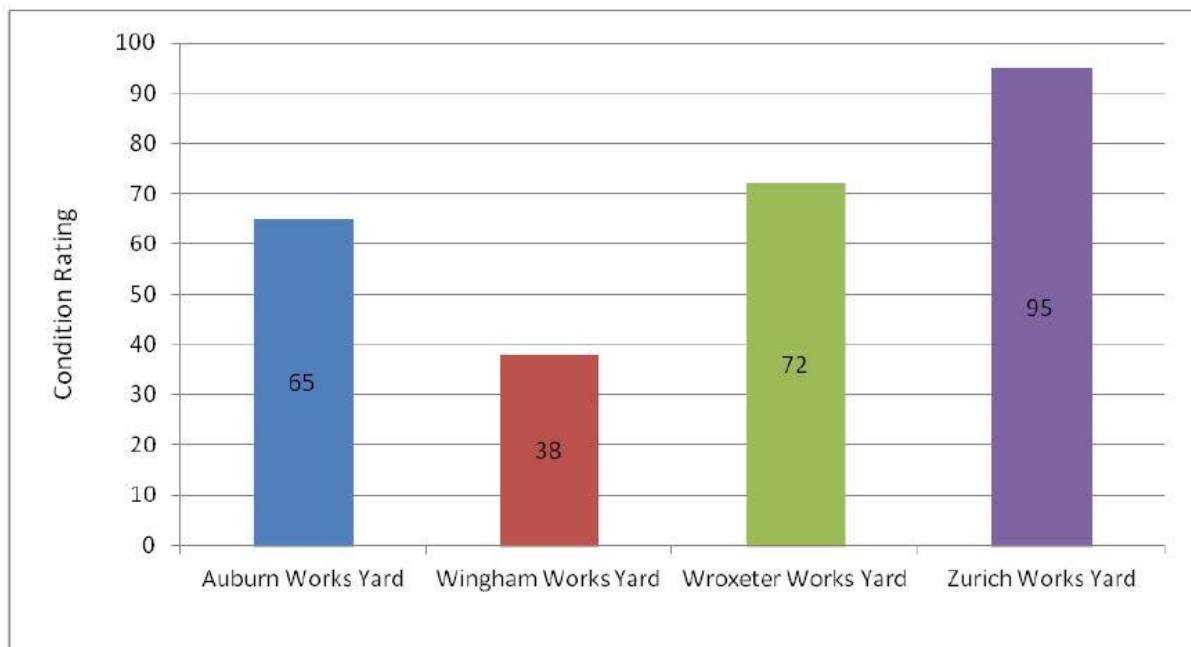
PW Buildings Replacement Value			
Asset Type	Quantity	2012 Unit Replacement Cost	2012 Overall Replacement Cost
AUBURN WORKS YARD	1	\$3,895,000	\$3,895,000
WINGHAM WORKS YARD	1	\$1,681,200	\$1,681,200
WROXETER WORKS YARD	1	\$2,400,000	\$2,400,000
ZURICH WORKS YARD	1	\$1,900,000	\$1,900,000
			\$9,876,200

The pie chart below provides a breakdown of each of the Public Works buildings asset types to the overall replacement value.



What condition is it in?

Condition assessment rating was carried out on the Public Works Buildings Structure network, in consultation with Public Works Department using the Dillon report to identify the level of service considered acceptable by staff. The following results were obtained: From the Public Works department. The results of the detailed condition assessment assets are summarized below in the Graph.



The condition rating relates to the age and usage of the overall structure and is a rating out of 100. When the rating is between 30 and 50 the item needs to be replaced. The rating system is as follows:

Excellent:	80–100	No evident defects
Good:	70– 79	Slight decline
Fair:	51– 69	Decline asset apparent
Poor:	0 – 50	Severe decline or failure

What do we need to do it?

Addressing Asset Needs		
Assets	Needs 1-5 yrs	Needs 6-10 yrs
AUBURN WORKS YARD	\$1,976,700	\$447,236
WINGHAM WORKS YARD	\$1,516,000	\$1,915,074
WROXETER WORKS YARD	\$48,350	\$39,191
ZURICH WORKS YARD	\$595,000	\$16,104
	\$4,136,050	\$2,417,604

When do we need to do it?

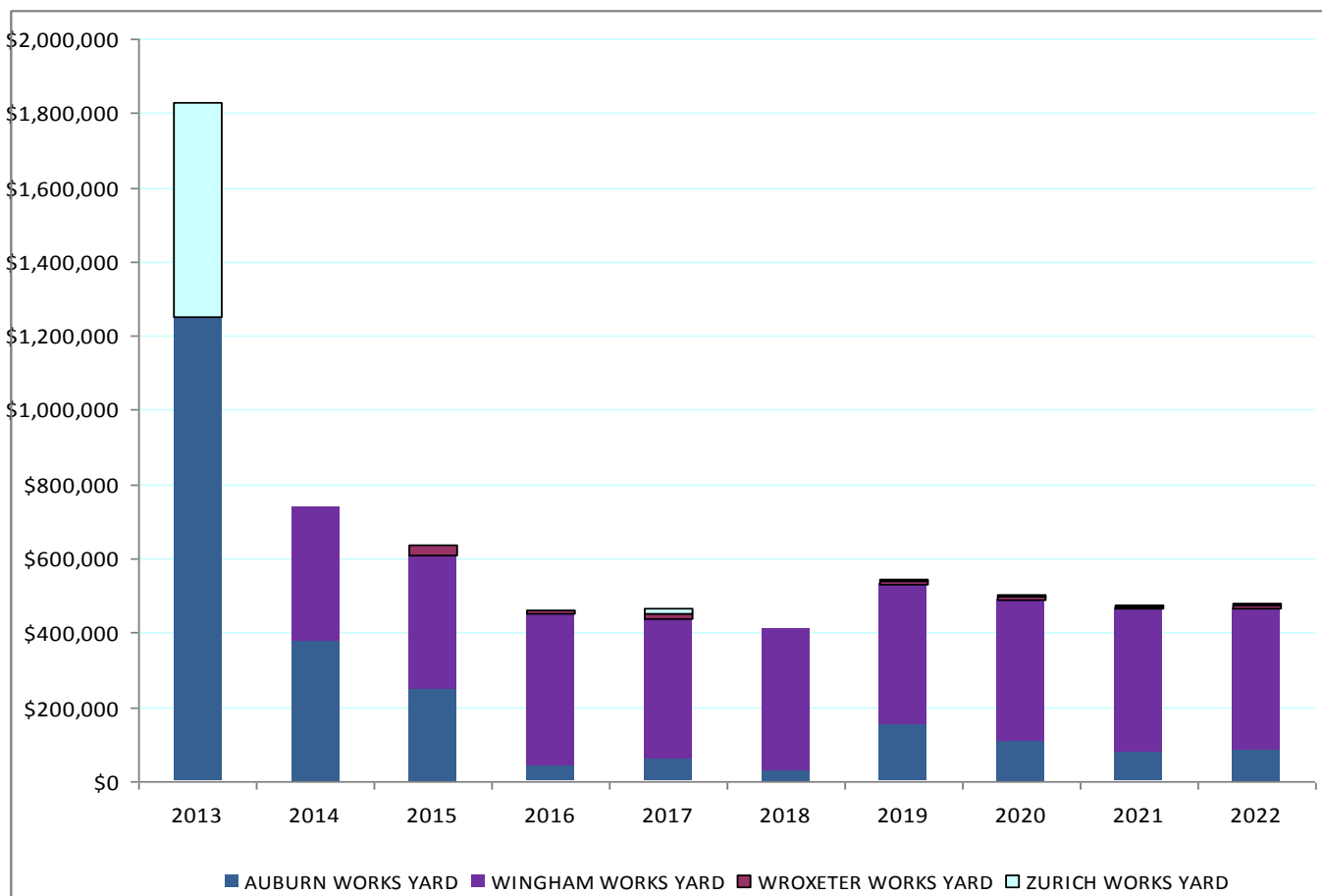
One criterion critical to rating the Public Works Buildings structure for the purposes of developing the AMP is the service life of the structure and its elements. As assets age, infrastructure managers must use experience and judgment to decide when maintenance is no longer cost effective thereby requiring that the structure be replaced.

Asset Useful Life in Years		
Asset Type	Asset Component	Useful Life
Building works 30yr		30
Building works 60yr		60
Building Equipment		5
Building Exterior		20
Building Interior		20
Building Mechanical		20
Building Electrical		20
Building Site		22

How much money do we need?

This scenario is used to analyze and determine how much money is required on a yearly basis to replace all assets as they become in need of replacement. The following Graph illustrates the results of our analysis for the Public Works Department.

Asset Replacement Summary



How do we reach sustainability?

The analysis revealed that the average yearly revenue required is \$655,365 to ensure that the level of service is maintained at today's level, over the next 10 years. The above graph also indicates that at that rate of funding the network needs are expected to be somewhat variable over the next ten years.

The table below shows the values at 2012 net book value, which is the historical cost less depreciation. The table also shows the 2012 current value cost to replace. The table illustrates the variance between net book value and current 2012 cost. This explains the reason for Public Works Buildings requiring more funding than just raising depreciation to replace assets at current value.

PW Buildings Replacement Current Value vs Net Book Value				
Asset Type	Quantity	Useful Life	Current 2012	Net Book Value 2012
AUBURN WORKS YARD	1	30-50	\$3,895,000	\$60,008
WINGHAM WORKS YARD	1	30-50	\$1,681,200	\$105,465
WROXETER WORKS YARD	1	30-50	\$2,400,000	\$610,331
ZURICH WORKS YARD	1	30-50	\$1,900,000	\$1,310,937
			\$9,876,200	\$2,086,741

Recommendations

The Asset Management Plan Project managers recommend the following:

- Consideration of selected "what if" expenditure scenarios
- Production of a prioritized short and long term Capital Improvement Plan (CIP)
- Annual review of the Asset Management Plan
- Review every four years the Asset Management Plan policy
- Purchase software to manage and update the AMP
- Assist departments in budgeting for asset cost

Desired Levels of Service

Key Performance Indicators

Key Indicator:

Building condition

Issue:

As buildings age, they are subject to deterioration due to exposure to climate, and through usage.

Potential Impact:

If building is in poor condition, there may be health and safety issues. Failure to respond to issues may lead to increased damage and more expensive repairs. The building condition will worsen at an accelerated pace if preventative maintenance steps are not taken.

Current Controls:

Inspections are carried out semi-annually. Issues identified are rectified, with smaller repairs being performed by County personnel, while larger issues are addressed by third party providers as needed. Any larger items or items that are coming to the end of their life cycle are often identified several years in advance, such as roofing replacement, and budgeted and scheduled accordingly.

Action plan:

Continue to carry out semi-annual inspections and perform preventative maintenance as required.

FLEET



Fleet

What does the County own?

The County of Huron has: 44 vehicles and equipment at 5 years cycle, 28 vehicles at 10 years cycle and 18 vehicles at 15 years cycle. The assets are located within the Fleet network. All asset field assessments are carried out in the Public Works department. The results of the detailed inventory assessment of the targeted structures are summarized below.

County's inventory of Fleet in accordance with best practices and current legislation.

Fleet Inventory		
Asset Type	Asset Component	Quantity
Fleet 5 year	Trucks, Cars, Vans, Mowers, etc.	44
Fleet 10 year	Tandem Trucks, Tractors, Forklifts, etc.	28
Fleet 15 year	Graders, Backhoes, Large Loaders, etc.	18

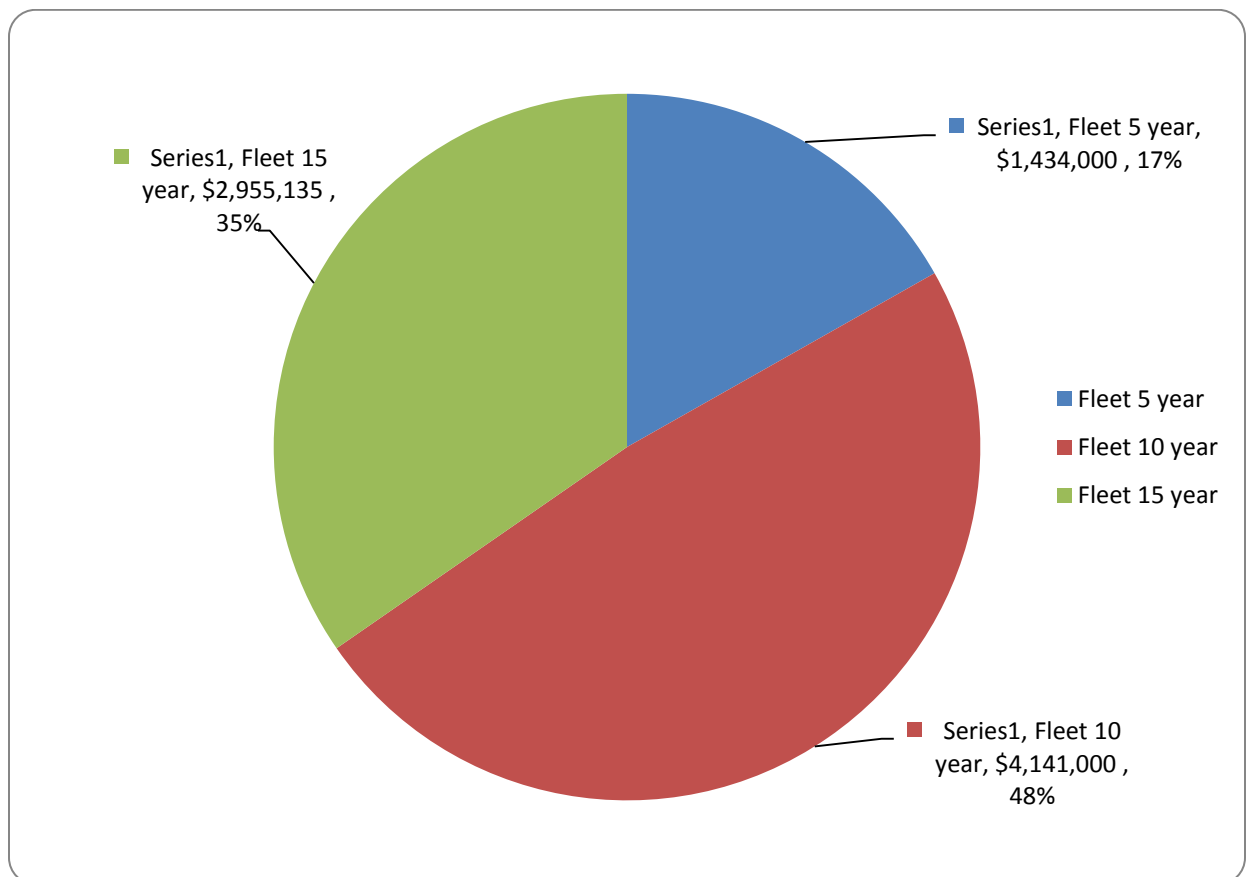
The Fleet data was compiled from the tangible capital assets module, Great Plains software.

What is it worth?

Before managing an asset, it is important to know the value of the Fleet to determine if the maintenance dollars spent are justified to protect the asset. Based on the asset valuation process carried out as part of this assignment, the AMP Team, in consultation with staff calculated an approximation of the total estimated value of the assets of \$8.5 million.

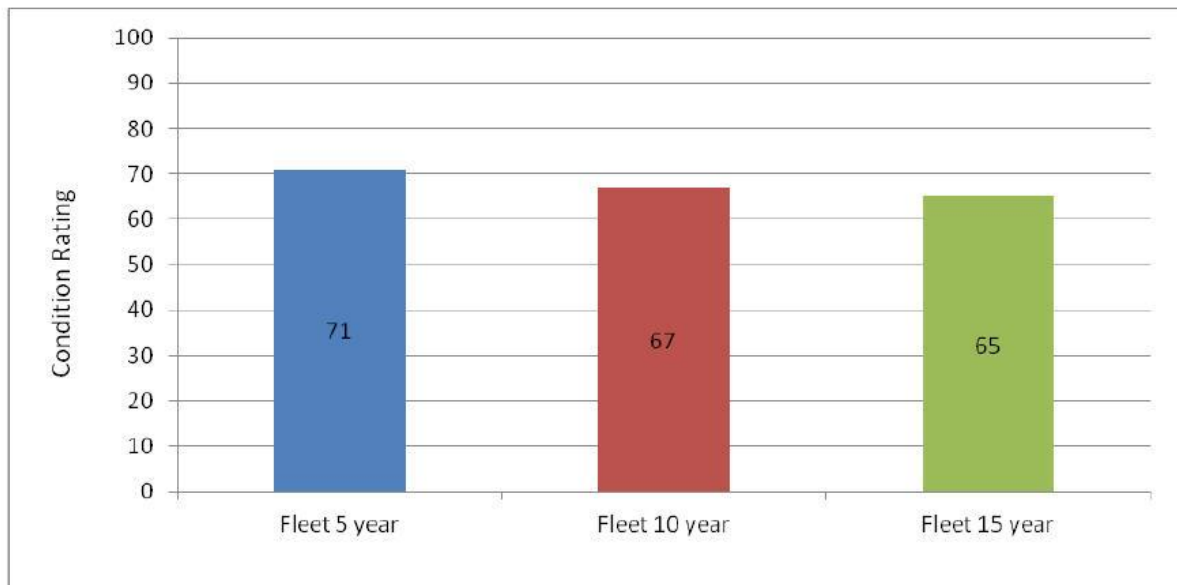
Fleet Replacement Value			
Asset Type	Quantity	2012 Average Unit Replacement Cost	2012 Overall Replacement Cost
Fleet 5 year	44	\$32,591	\$1,434,000
Fleet 10 year	28	\$147,893	\$4,141,000
Fleet 15 year	18	\$164,174	\$2,955,135
			\$8,530,135

The pie chart below provides a breakdown of each of the Fleet asset types to the overall replacement value.



What condition is it in?

Condition assessment rating was carried out on the Fleet asset network, in consultation with Public Works Department, to identify the level of service considered acceptable by staff. The following results were obtained: the fleets 5 year are in good condition, fleet 10 year and 15 year are in fair condition. The results of the detailed condition assessment of the targeted Assets are summarized below in the Graph.



The condition rating relates to the age and usage of the overall vehicles or devices and is a rating out of 100. When the rating is between 30 and 50 the item needs to be replaced. The rating system is as follows:

Excellent:	91 – 100	No evident defects
Good:	70 – 90	Slight decline
Fair:	51 – 69	Decline asset apparent
Poor:	30 – 50	Severe decline or failure

What do we need to do it?

Addressing Asset Needs		
Assets	Needs 1-5 yrs	Needs 6-10 yrs
Fleet 5 year	\$ 974,500	\$ 906,000
Fleet 10 year	\$ 1,717,000	\$ 2,037,000
Fleet 15 year	\$ 1,153,000	\$ 1,455,000
	\$ 3,844,500	\$ 4,398,000

When do we need to do it?

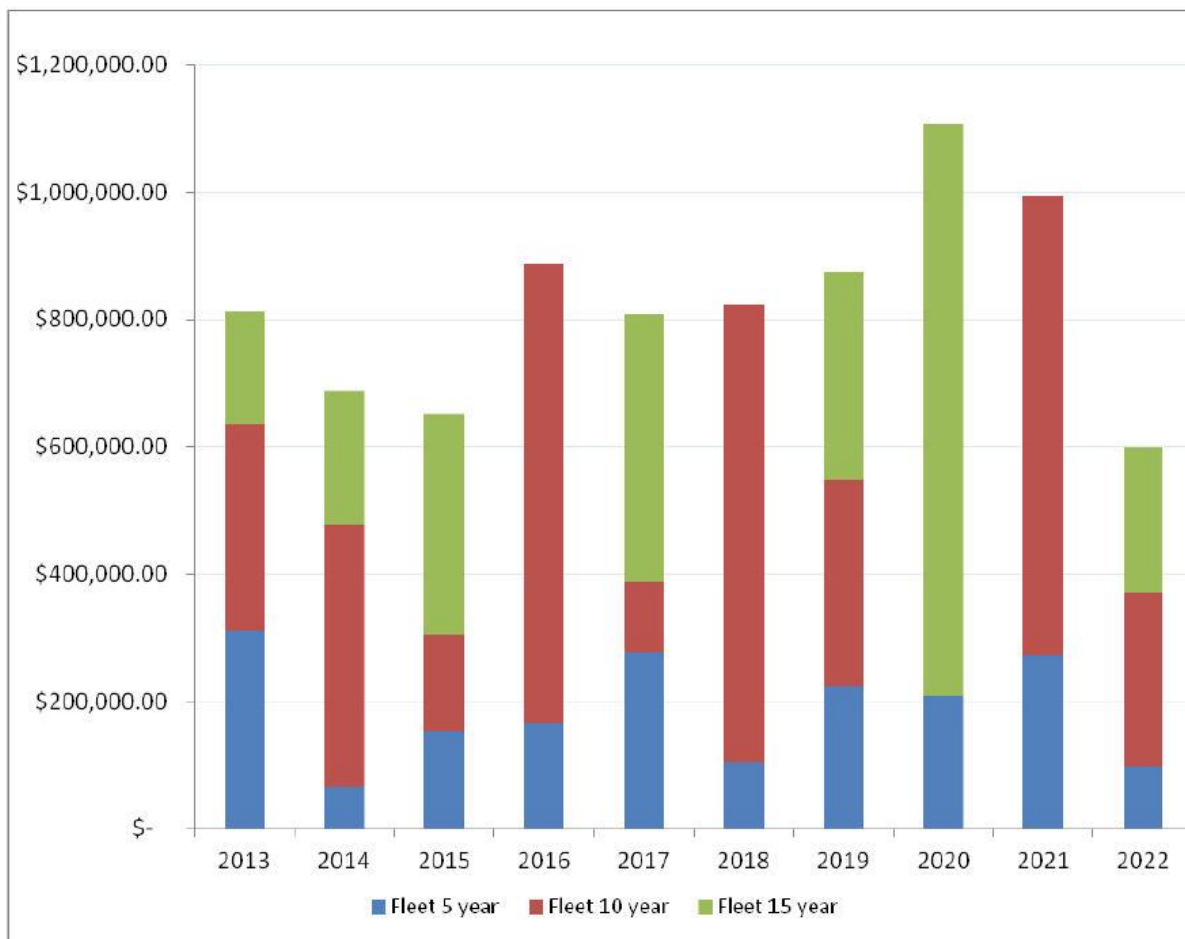
One criterion critical to rating the fleet structure for the purposes of developing the AMP is the service life of the structure and its elements. As assets age, infrastructure managers must use experience and judgment to decide when maintenance is no longer cost effective thereby requiring that the structure be replaced.

Asset Useful Life in Years		
Asset Type	Asset Component	Useful Life
Fleet 5 year	Trucks, Cars, Vans, Mowers, ect.	5
Fleet 10 year	Tandem Trucks, Tractors, Forklifts, ect.	10
Fleet 15 year	Graders, Backhoes, Large Loaders, ect.	15

How much money do we need?

This scenario is used to analyze and determine how much money is required on a yearly basis to replace all assets as they become in need of replacement. The following Graph illustrates the results of our analysis for the Public Works Fleet Department.

Asset Replacement Summary



How do we reach sustainability?

The analysis revealed that the average yearly revenue required is \$824,500 to ensure that the level of service is maintained at today's level, over the next 10 years. The above graph also indicates that at that rate of funding the network needs are expected to be somewhat constant over the next ten years.

The tables below shows the values at 2012 net book value, which is the historical cost less depreciation. The table also shows the 2012 current value cost to replace. The table illustrates the variance between net book value and current 2012 cost. This explains the reason for Fleet requiring more funding than just raising depreciation to replace assets at current value.

Fleet Replacement Current Value vs Net Book Value				
Asset Type	Quantity	Useful Life	Current 2012	Net Book Value 2012
Fleet 5 year	44	5	\$1,434,000	\$473,143
Fleet 10 year	28	10	\$4,141,000	\$1,990,503
Fleet 15 year	18	15	\$2,955,135	\$1,489,065
			\$8,530,135	\$3,952,712

Recommendations

The Asset Management Plan Project managers recommend the following:

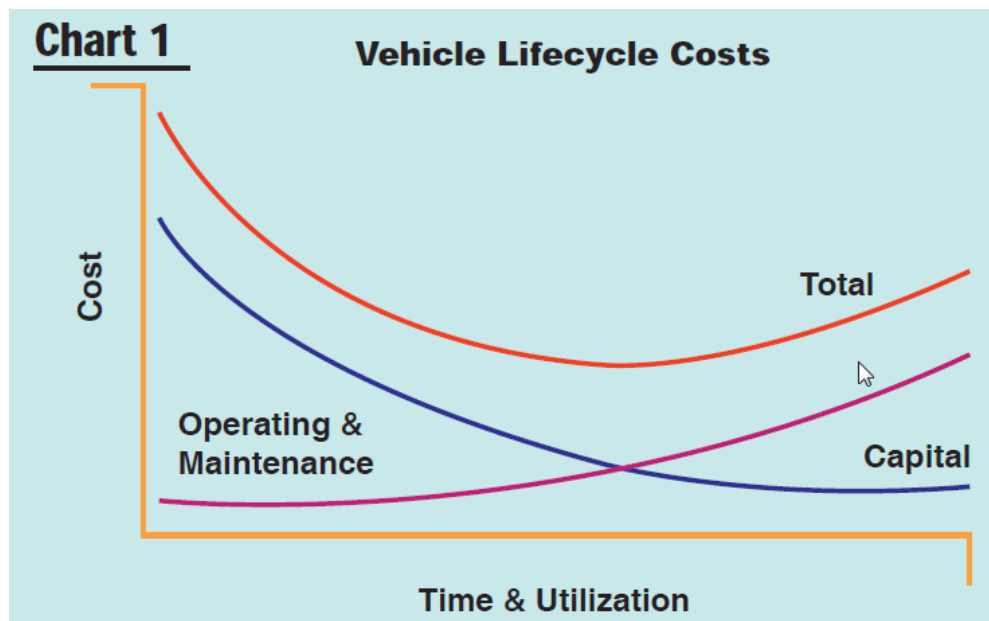
- Consideration of selected "what if" expenditure scenarios
- Production of a prioritized short and long term Capital Improvement Plan (CIP)
- Annual review of the Asset Management Plan
- Review every four years the Asset Management Plan policy
- Purchase software to manage and update the AMP
- Assist departments in budgeting for asset cost

Desired Levels of Service

Huron County currently has assets totaling over eight (8) million dollars in licensed and unlicensed equipment. This equipment includes a fleet of thirteen tandem trucks, three graders, four one ton trucks, four front end loaders, three tractors, twenty two pickups and crew cab pickups for our department and others within the County, and various specialty equipment.

While fleet maintenance is important, effective equipment management should go well beyond fixing a break down. A program is in place that preserves the value of equipment investments, minimizes the incidents of unscheduled repairs, and collect, analyzes, and reports necessary data so that informed and intelligent asset management decisions can be made.

Reliable vehicles and equipment in good working order are essential to ensure roads are maintained in a timely and professional manner. When to replace a vehicle is one of the most significant decisions facing fleet managers. Without a viable and comprehensive replacement program, management is not able to replace equipment when needed at the optimum replacement time as illustrated below in Chart 1.



Over time, vehicle capital costs decline, while vehicle operating costs increase. The combination of these two cost functions produces a U-shaped total cost curve. Ideally, vehicles should be replaced around the time that annual operating costs begin to outweigh annual capital costs – that is, when the total cost curve begins to turn upward. As illustrated by the graph, deferring replacement of vehicles and equipment beyond a certain point

actually causes total vehicle costs to rise, making a fleet more costly to own and operate.

A fleet replacement plan can accomplish the following:

1. Less equipment downtime and lower operating/maintenance costs by eliminating high cost intensive vehicles.
2. An assurance that vehicles are rotated out in a planned schedule.
3. Modernize the fleet for peak performance in both technical and employee safety areas.
4. Allows you to document future year funding requirements.

We hope that by using our equipment replacement schedule and asset plan that it will bring credibility to the replacement process for prioritizing vehicle replacement funds.

PROPERTY SERVICES INFRASTRUCTURE



Property Services Infrastructure

What does the County own?

The County of Huron has: 3 Historical buildings, 3 Office buildings, 3 Storage buildings, 4 Storage buildings, 1 Transformer building, 1 Health and Library building and 1 Pump House Building. The assets are located within the Property services network. All asset field assessments are carried out in the Property Services department. The results of the detailed inventory assessment of the targeted structures are summarized below.

County's inventory of Property services infrastructure in accordance with best practices and current legislation.

Property Services Inventory		
Asset Type	Asset Component	Quantity
Historical Buildings	Building	3
Office Buildings	Building	3
Transformer Building	Building	1
Storage Buildings	Building	3
Ambulance Buildings	Building	4
Health Unit Building	Building	1
Pump House Building	Building and water lines	1
		16

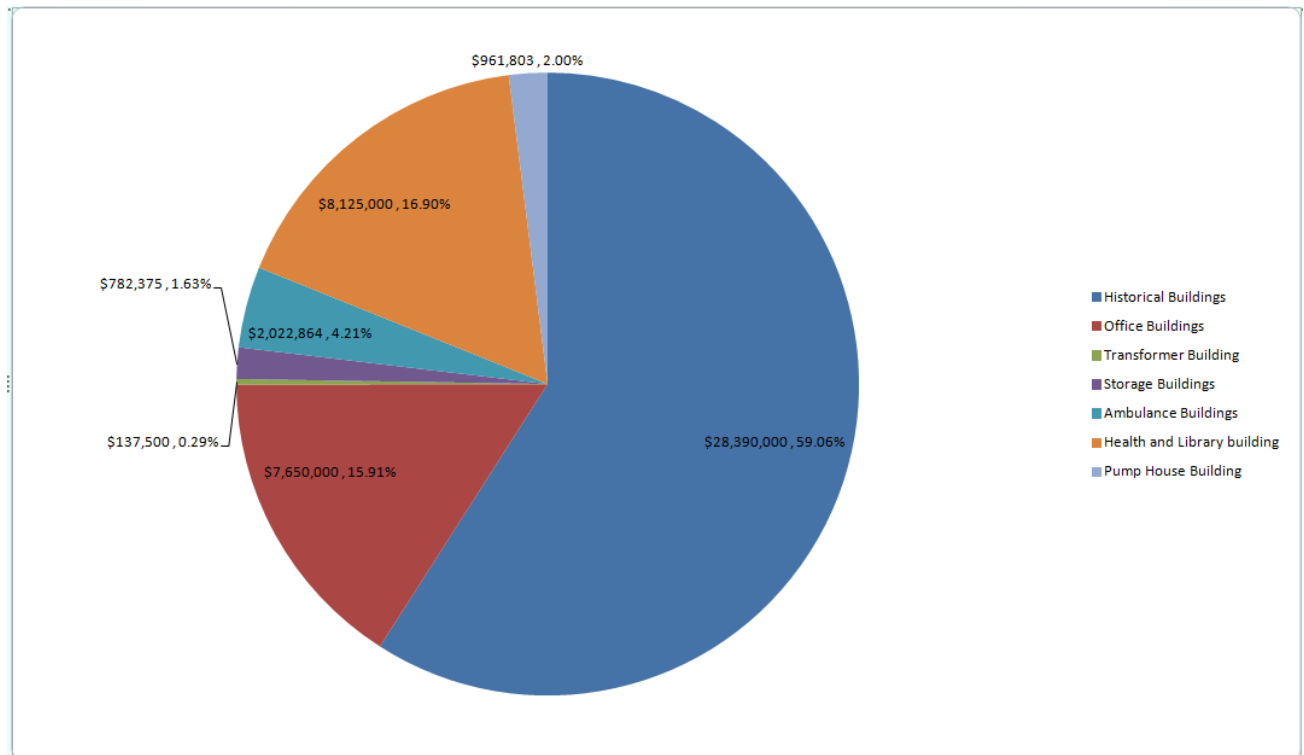
The Property services infrastructure data was compiled from the tangible capital assets module, Great Plains software.

What is it worth?

Before managing an asset, it is important to know the value of the Property services asset to determine if the maintenance dollars spent are justified to protect the asset. Based on the asset valuation process carried out as part of this assignment, the AMP Team, in consultation with staff calculated an approximation of the total estimated value of the assets of \$48 million.

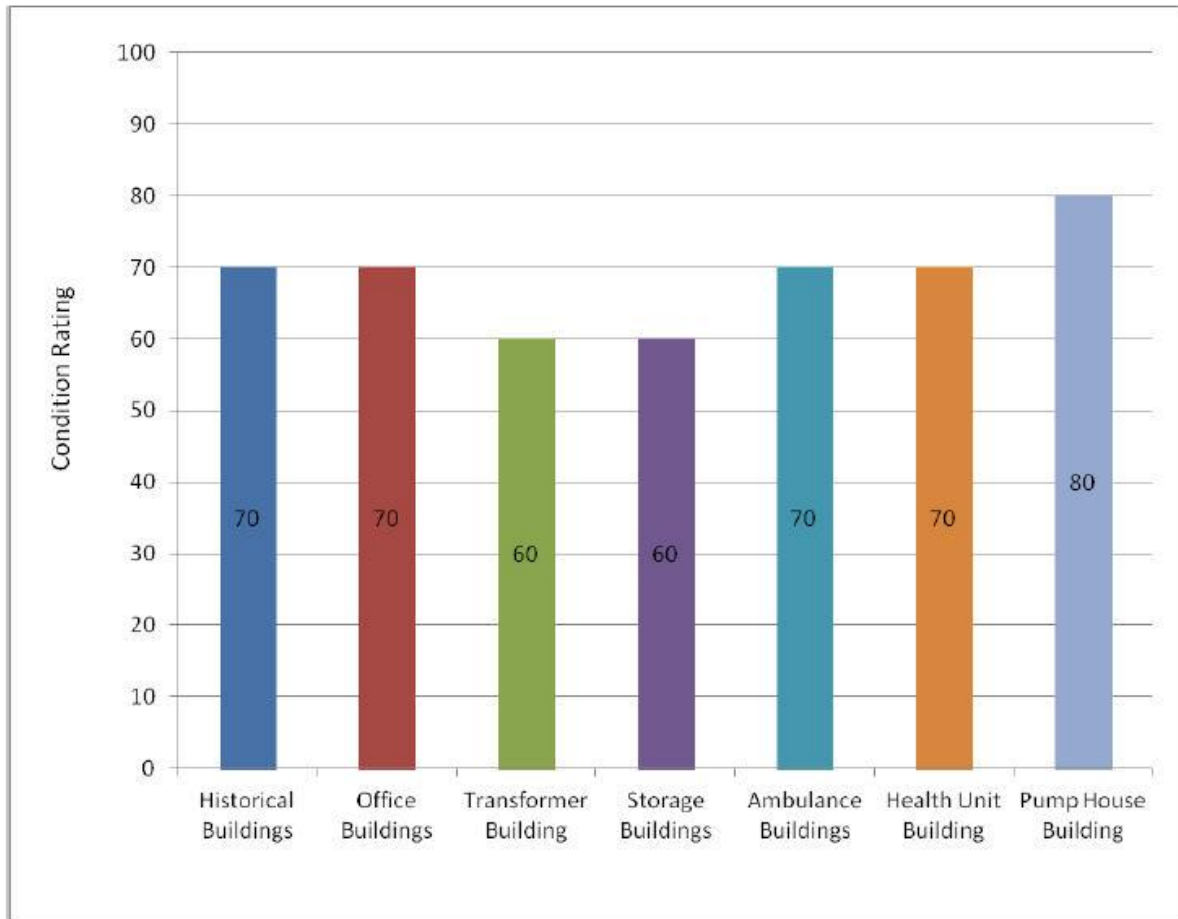
Property Services Replacement Value			
Asset Type	Quantity Square Foot	2012 Unit Replacement Cost	2012 Overall Replacement Cost
Historical Buildings	85,000	\$334	\$28,390,000
Office Buildings	37,500	\$204	\$7,650,000
Transformer Building	2,500	\$55	\$137,500
Storage Buildings	14,225	\$55	\$782,375
Ambulance Buildings	13,668	\$148	\$2,022,864
Health and Library building	32,500	\$250	\$8,125,000
Pump House Building	N/A	\$961,803	\$961,803
			\$48,069,542

The pie chart below provides a breakdown of each of the Property services asset types to the overall replacement value.



What condition is it in?

Condition assessment rating was carried out on the Property services asset network, in consultation with Property Services department, to identify the level of service considered acceptable by staff. The following results were obtained: The overall average condition for the buildings rate as fair. The results of the detailed condition assessment of the targeted Assets are summarized below in the Graph.



The condition rating relates to the age and usage of the overall vehicles or devices and is a rating out of 100. When the rating is between 30 and 50 the item needs to be replaced. The rating system is as follows:

Excellent:	80 – 100	No evident defects
Good:	70 – 79	Slight decline
Fair:	51 – 69	Decline asset apparent
Poor:	0 – 50	Severe decline or failure

What do we need to do it?

Addressing Asset Needs		
Assets	Needs 1-5 yrs	Needs 6-10 yrs
Historical Buildings	\$3,811,763	\$1,406,498
Office Buildings	\$1,091,505	\$520,781
Transformer Building	\$0	\$0
Storage Buildings	\$90,151	\$169,840
Ambulance Buildings	\$137,826	\$253,191
Health and Library building	\$1,223,921	\$550,823
Pump House Building	\$0	\$11,286
	\$6,355,166	\$2,912,419

When do we need to do it?

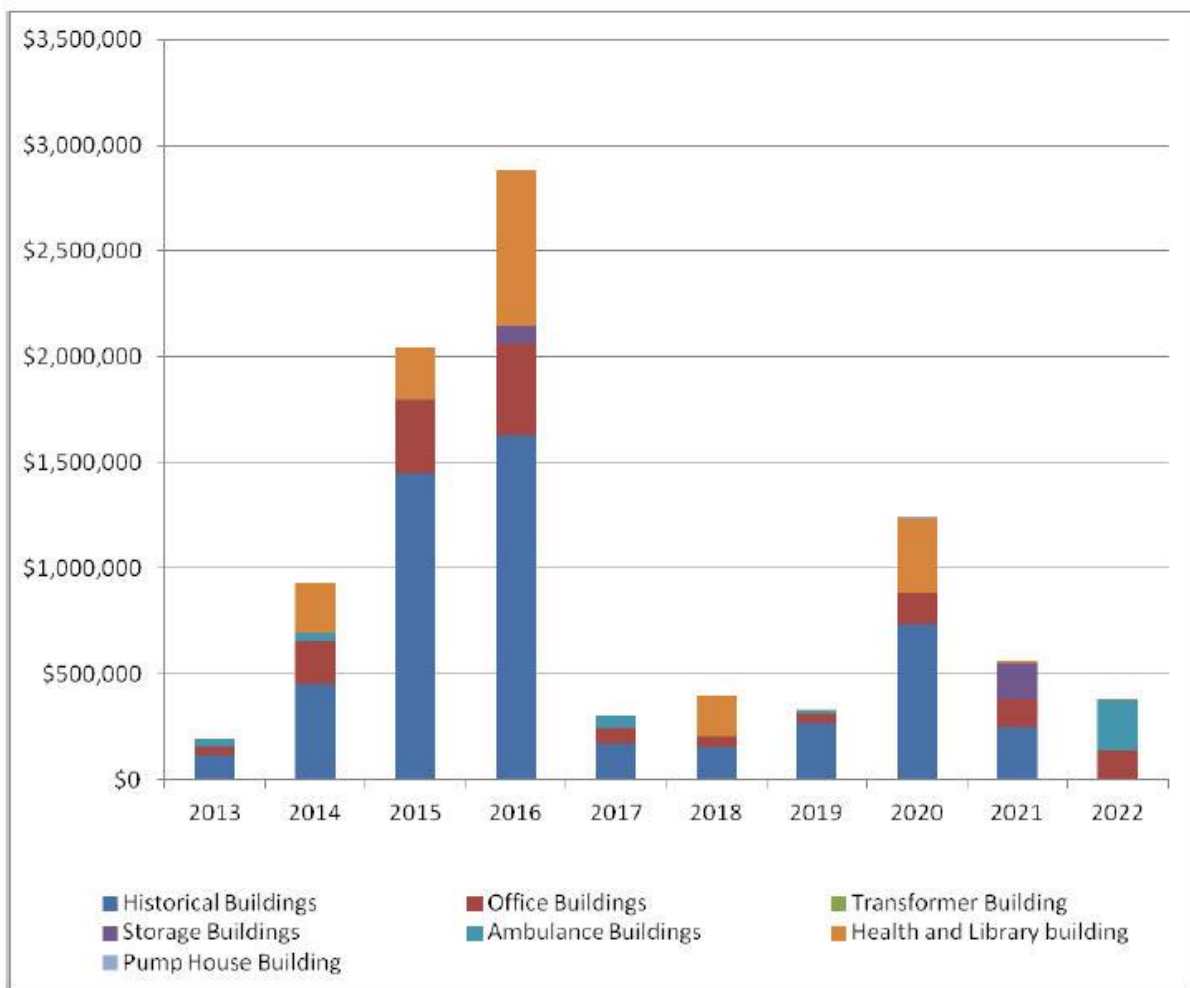
One criterion critical to rating the Property services assets for the purposes of developing the AMP is the service life of the structure and its elements. As assets age, infrastructure managers must use experience and judgment to decide when maintenance is no longer cost effective thereby requiring that the structure be replaced.

Asset Useful Life in Years		
Asset Type	Asset Component	Useful Life
Building		60
Building Electrical		20
Building Equipment		5
Building Exterior		20
Building Interior		20
Building Mechanical		20
Building Site		22

How much money do we need?

This scenario is used to analyze and determine how much money is required on a yearly basis to replace all assets as they become in need of replacement. The following Graph illustrates the results of our analysis for the Property Services department.

Asset Replacement Summary



How do we reach sustainability?

The analysis revealed that the average yearly revenue required is \$926,759 to ensure that the level of service is maintained at today's level, over the next 10 years. The above graph also indicates that at that rate of funding the network needs are expected to be somewhat constant over the next ten years.

The tables below shows the values at 2012 net book value, which is the historical cost less depreciation. The table also shows the 2012 current value cost to replace. The table illustrates the variance between net book value and current 2012 cost. This explains the reason for Property services requiring more funding than just raising depreciation to replace assets at current value.

Property Services Replacement Current Value vs Net Book Value				
Asset Type	Quantity	Useful Life	Current 2012	Net Book Value 2012
Historical Buildings	3	60	\$28,390,000	\$4,180,593
Office Buildings	3	60	\$7,650,000	\$1,574,339
Transformer Building	1	60	\$137,500	\$12,204
Storage Buildings	3	60	\$782,375	\$220,535
Ambulance Buildings	4	60	\$2,022,864	\$1,201,827
Health and Library building	1	60	\$8,125,000	\$1,102,815
Pump House Building	1	60	\$961,803	\$874,367
			\$48,069,542	\$9,166,680

Recommendations

The Asset Management Plan Project managers recommend the following:

- Consideration of selected "what if" expenditure scenarios
- Production of a prioritized short and long term Capital Improvement Plan (CIP)
- Annual review of the Asset Management Plan
- Review every four years the Asset Management Plan policy
- Purchase software to manage and update the AMP
- Assist departments in budgeting for asset cost

Desired Levels of Service

Key Performance Indicators

Key Indicator: Response time to requests for work

Issue: Calls for work are assessed re level of urgency. The clients who request work include external (MAG, Service Ontario, and MPAC) and internal (the Departments within the Corporation) should receive confirmation of receipt of work order request within 24 hours, and be provided with an anticipated response time

Potential Impact: Failure to assess and respond to problems may lead to increased damages if the maintenance concern is not identified within a timely manner. Also, a lack of a timely response to clients may lead to decreased client satisfaction.

Current Controls: The **internal clients** complete and submit an electronic Property Services Request form. Each PSR is received by the maintenance coordinator for Housing and Property Services and the Maintenance Technicians and Building Custodians are also able to view the PSR. The work is assigned, and this information is input; once the work is finished, the PSR is marked complete.

The **external clients** call or email their requests for maintenance service to the maintenance coordinator. An electronic work order is created through the Property Services Request form, and the protocols listed above for internal clients also then apply.

Action plan: The maintenance coordinator is to continually monitor the status of all PSR's that are incomplete. The continuous monitoring of all incomplete PSR's will help to ensure that work does not remain unfinished or "fall through the cracks".

Key Indicator –Funding

Issue: The funding mechanism relies on rental revenue from the County's three external tenants to provide the resources to maintain services for these properties; the remainder of funding required is from the County. There are no additional provincial or federal funds received for Property Services on a regular basis.

It is possible that occasional grant money is made available through agencies such as Heritage Canada, or one time funding opportunities for projects with specific eligibility criteria.

Potential Impact: A decrease in funding would result in a loss of services or maintenance repairs and capital projects

Current Controls: All work, both operational and capital, is monitored for efficiencies and cost controls.

The budget is monitored by the internal mechanisms of the County's Treasury Department and the Housing and Property Services Division.

Action plan: The 2014 budget reflects the operational and capital requirements to adequately maintain services and complete the more urgent capital upgrades. The capital work is selected based on recommendations from the building condition assessments along with the practical knowledge of the staff involved

Key Indicator - Depreciation

Issue: As the buildings begin to age, the required upkeep is expected to increase to maintain levels of service.

Potential Impact: Although the expected life spans are quite high, in practicality, buildings such as the JMB are currently 60 years old and will require increasing maintenance work to keep the building functional (ie, the HVAC system has frequent temperature control issues).

Current Controls: By remaining diligent in completing the required repairs, the building respective life spans should be met

Action plan: The concept of building replacement may be a consideration in the future if the required repairs increase substantially for any building

Key Indicator - Capital

Issue: The Building Condition Assessments completed in 2011 indicate a much more substantial requirement for capital repairs than what the County has historically provided for the capital works budget.

Potential Impact: Many projects, in future years, will have to be deferred as the average capital allocation is substantially lower than the cost of the recommended repairs within the Building Condition Assessments.

Current Controls: A thorough analysis of the capital requirements is undertaken by Housing and Property Services to determine which capital projects are able to be funded each year.

Action plan: It is anticipated that the process of completing the Asset Management Plan will result in a system within the County that recognizes the need for substantial capital repairs and works toward providing the funding allocations to enable the work to be completed.

Key Indicator -Preventative Maintenance

Issue: The role of preventative maintenance plays an important part in the longevity of a building and the cost efficiencies of a building

Potential Impact: By monitoring building systems, providing a consistent, regular preventative maintenance program will significantly aid in reducing building costs. The cost savings will be realized through fewer system failures over time and the decreased need to replace components and systems.

Current Controls: The role of Preventative Maintenance Technician has been filled effective October 21, 2013. This newly created position will develop and implement a preventative maintenance program to ensure the components within the building envelope operate as efficiently as possible, leading to fewer repairs and replacements.

Action plan: None at present.

Key Indicator - Energy Savings

Issue: As energy costs increase, the need to reduce usage is recognized.

Potential Impact: Utility costs have increased substantially and are predicted to continue in this manner.

Current Controls: Tenants are encouraged to reduce energy costs by keeping windows closed when heat or a/c is on, turning off lights, etc.. Low flush toilets and aerators have been installed, and some energy efficient lighting.

Action plan: The legislated Green Energy Act, O/Reg. 397/11 will require all municipalities to have in place energy conservation and demand management plans.

HOUSING SERVICES INFRASTRUCTURE



Housing Services Infrastructure

What does the County own?

The County of Huron has: 16 Apartments buildings and 84 Family units. These consist of detached dwellings, row town houses and semi-detached townhouses. The assets are located within the Housing Services network. All asset field assessments are carried out in the Housing and Property Services division. The results of the detailed inventory assessment of the targeted structures are summarized below.

County's inventory of Housing Services infrastructure in accordance with best practices and current legislation.

Housing Inventory		
Asset Type	Asset Component	Quantity
Building Apartments	Apartment	16
Building Family units Single	Residential / single	35
Building Family units Duplex	Residential / duplex	39
Building Family units Row	Residential / row	10
		100

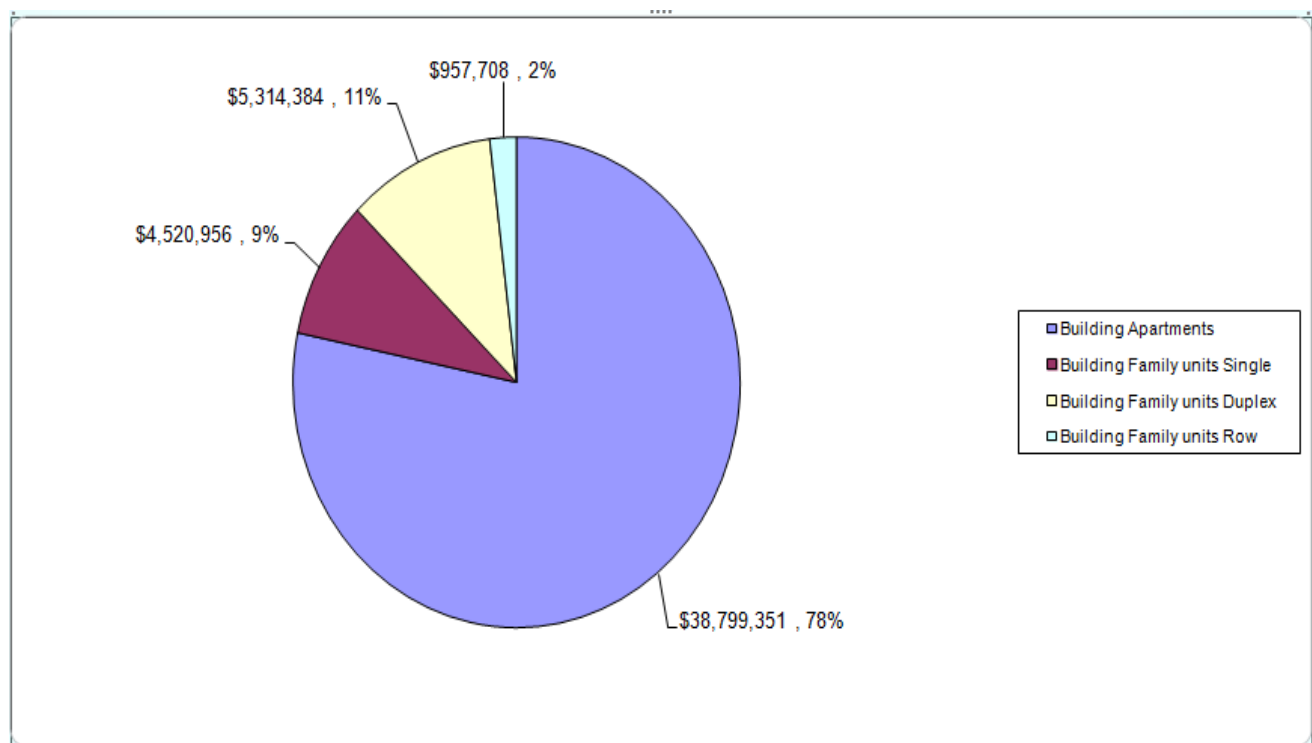
The Housing Services infrastructure data was compiled from the tangible capital assets module, Great Plains software.

What is it worth?

Before managing an asset, it is important to know the value of the Housing Services asset to determine if the maintenance dollars spent are justified to protect the asset. Based on the asset valuation process carried out as part of this assignment, the AMP Team, in consultation with staff calculated an approximation of the total estimated value of the assets of \$49.6 million.

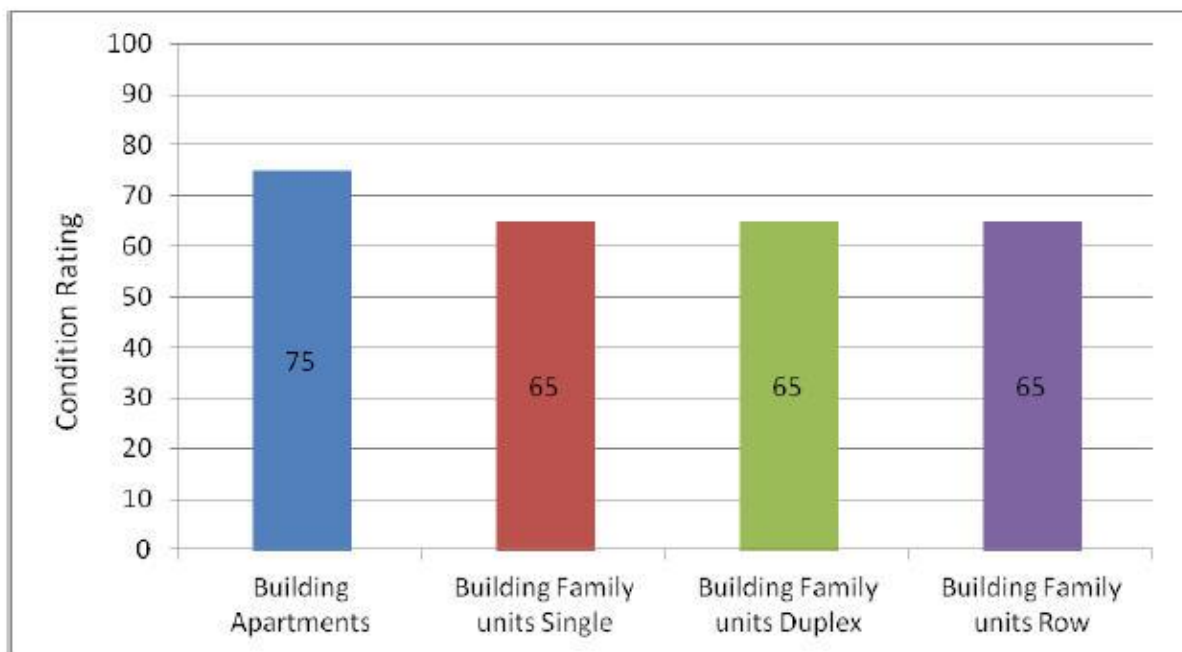
Housing Replacement Value			
Asset Type	Quantity Square Feet	2012 Per Sq Foot Replacement Cost	2012 Overall Replacement Cost
Building Apartments	261,029	\$149	\$38,799,351
Building Family units Single	30,547	\$148	\$4,520,956
Building Family units Duplex	35,908	\$148	\$5,314,384
Building Family units Row	8,628	\$111	\$957,708
			\$49,592,399

The pie chart below provides a breakdown of each of the Housing Services asset types to the overall replacement value.



What condition is it in?

Condition assessment rating was carried out on the Housing Services asset network, in consultation with Social and Property Services department, to identify the level of service considered acceptable by staff. The following results were obtained: the Apartment Building units are in Good condition, Family single, duplex and row units are in fair condition. The results of the detailed condition assessment of the targeted Assets are summarized below in the Graph.



The condition rating relates to the age and usage of the overall vehicles or devices and is a rating out of 100. When the rating is between 30 and 50 the item needs to be replaced. The rating system is as follows:

Excellent:	80 – 100	No evident defects
Good:	70 – 79	Slight decline
Fair:	51 – 69	Decline asset apparent
Poor:	0 – 50	Severe decline or failure

What do we need to do it?

Addressing Asset Needs		
Assets	Needs 1-5 yrs	Needs 6-10 yrs
Building Apartments	\$7,020,894	\$4,910,043
Building Family units Single	\$627,161	\$670,321
Building Family units Duplex	\$987,872	\$937,850
Building Family units Row	\$295,679	\$248,656
	\$8,931,606	\$6,766,870

When do we need to do it?

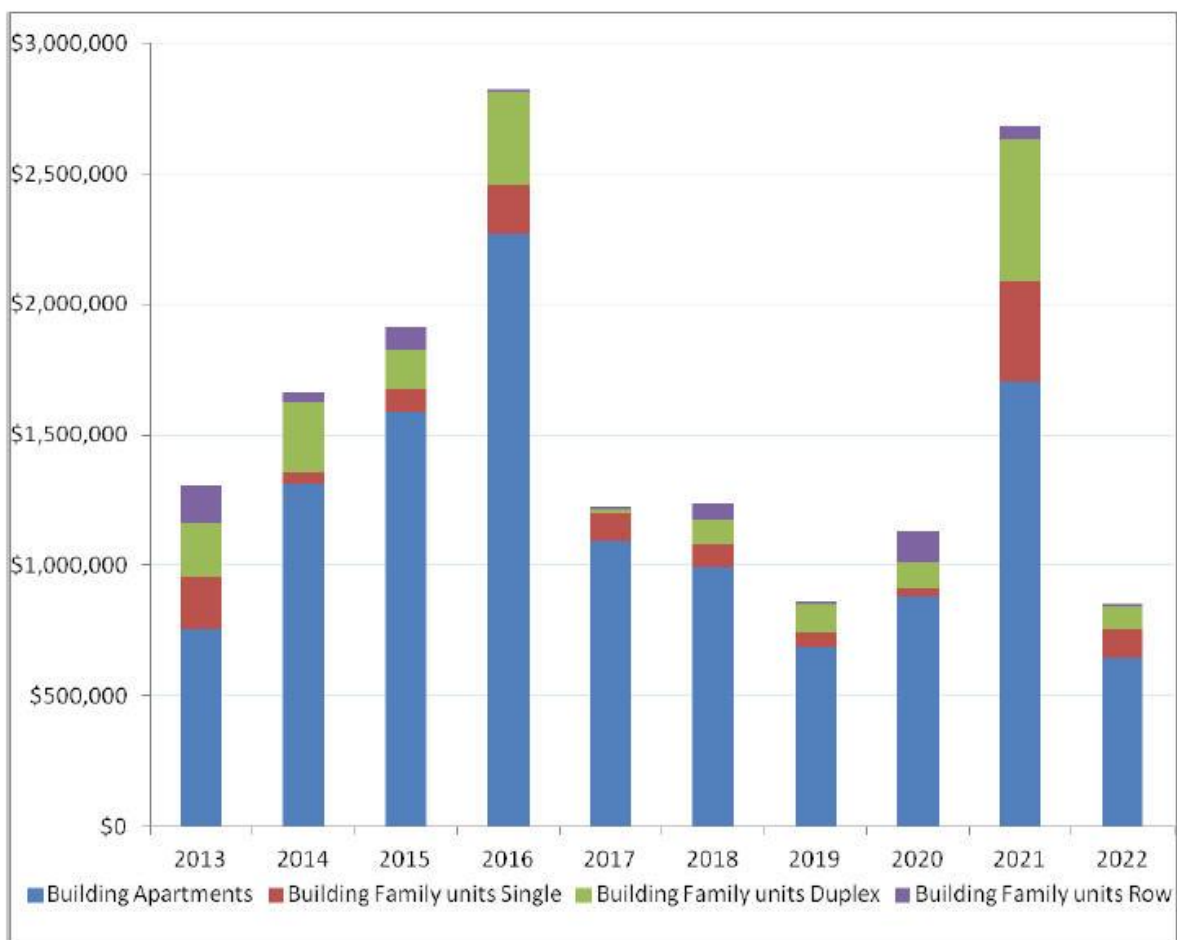
One criterion critical to rating the Housing Services assets for the purposes of developing the AMP is the service life of the structure and its elements. As assets age, infrastructure managers must use experience and judgment to decide when maintenance is no longer cost effective thereby requiring that the structure be replaced.

Asset Useful Life in Years		
Asset Type	Asset Component	Useful Life
Buildings		60
Building Electrical		20
Building Equipment		5
Building Exterior		20
Building Interior		20
Building Mechanical		20
Building Site		22
Building Apartments		50
Building Family units		30

How much money do we need?

This scenario is used to analyze and determine how much money is required on a yearly basis to replace all assets as they become in need of replacement. The following Graph illustrates the results of our analysis for the Housing Services department.

Asset Replacement Summary



How do we reach sustainability?

The analysis revealed that the average yearly revenue required is **\$1,569,848 to ensure that the level of service is maintained at today's level**, over the next 10 years. The above graph also indicates that at that rate of funding the network needs are expected to be somewhat variable over the next ten years.

The tables below shows the values at 2012 net book value, which is the historical cost less depreciation. The table also shows the 2012 current value cost to replace. The table illustrates the variance between net book value and current 2012 cost. This explains the reason for Housing Services requiring more funding than just raising depreciation to replace assets at current value.

Housing Replacement Current Value vs Net Book Value				
Asset Type	Quantity	Useful Life	Current 2012	Net Book Value 2012
Building Apartments	16	50	\$38,799,351	\$12,714,760
Building Family units Single	35	30	\$4,520,956	\$1,944,526
Building Family units Duplex	39	30	\$5,314,384	\$1,430,827
Building Family units Row	10	30	\$957,708	\$293,741
			\$49,592,399	\$16,383,854

Recommendations

The Asset Management Plan Project managers recommend the following:

- Consideration of selected "what if" expenditure scenarios
- Production of a prioritized short and long term Capital Improvement Plan (CIP)
- Annual review of the Asset Management Plan
- Review every four years the Asset Management Plan policy
- Purchase software to manage and update the AMP
- Assist departments in budgeting for asset cost

Desired Levels of Service

Key Performance Indicators

Key Indicator - Response time to requests for work

Issue: Calls for work are assessed regarding/based on level of urgency. The clients who request work include social housing tenants. All tenants should receive confirmation of receipt of work order request within 24 hours, and be provided with an anticipated response time.

Potential Impact: Failure to assess and respond to problems may lead to increased damages if the maintenance concern is not identified within a timely manner. Also, a lack of a timely response to clients may lead to decreased tenant satisfaction.

Current Controls: The tenants call the office and speak directly with the maintenance coordinator. The maintenance coordinator creates a work order in the property management software and advises the maintenance technician of the work to be completed via a phone call or faxes the work order to the site. When the work is completed, the maintenance technician indicates the completion information on the work order and faxes back to the office.

Action Plan: The maintenance coordinator is to continually monitor the status of all work orders that are incomplete. The continuous monitoring of all incomplete work orders will help to ensure that work does not remain unfinished or “fall through the cracks”.

Key Indicator - Funding

Issue: Varieties of housing programs are currently running and funded through different mechanisms. The Huron County Housing Corporation and the six non-profits and one Housing Services cooperative are partially funded through provincial and federal dollars, however, a significant portion is provided by the County. The range of programs within the Investment in Affordable Housing program are cost shared between provincial and federal funding, with admin funding provided.

Potential Impact: A decrease in provincial or federal funding for the Housing Corporation would require an increased investment from the County to continue to meet basic levels of service and maintain service levels.

Current Controls: All work, both operational and capital, is monitored for efficiencies and cost controls. The programs funded through outside sources have reporting mechanisms in place to provide the Ministry of Municipal Affairs and Housing with program disbursements. The budget is monitored **by the internal mechanisms of the County's Treasury Department and the Housing and Property Services Division.**

Action Plan: The 2014 budget reflects the operational and capital requirements to adequately maintain services and complete the more urgent capital upgrades. The capital work is selected based on recommendations from the building condition assessments along with the practical knowledge of the staff involved within capital works. We continue to maximize additional program funding dollars to offer as many services as possible.

Key Indicator - Depreciation

Issue: As the buildings begin to age, the required upkeep is expected to increase to maintain levels of service.

Potential Impact: The expected life spans of the family units are now at 30 years. Many of these single family homes were constructed in the late 1940s and early 1950s, and of basic construction. Over the years, these modest homes have had substantial wear and tear. The apartment buildings have a predicted life span of approximately 50 years; however, they are beginning to show signs of age and future upkeep is essential.

It is important to note that under the *Housing Services Act, 2011* Housing levels must remain identical, which means if a unit is removed from the Housing Services stock for any reason, it must be replaced. For example, it is not permissible to sell off a single family home and not replace it with another family unit.

Current Controls: By remaining diligent in completing the required repairs, the building respective life spans should be met.

Action Plan: The concept of building replacement may be a consideration in the future if the required repairs increase substantially for any building. Social Housing, as a sector, has begun to identify regeneration as an identified solution; however, no associated funding has been identified by our provincial and federal agencies.

Key Indicator - Capital

Issue: The Building Condition Assessments completed in 2011 indicate a much more substantial requirement for capital repairs than what the County has historically provided for the capital works budget.

Potential Impact: Many projects, in future years, will have to be deferred as the average capital allocation is substantially lower than the cost of the recommended repairs within the Building Condition Assessments.

Current Controls: A thorough analysis of the capital requirements is undertaken by Housing and Property Services to determine which capital projects are able to be funded each year.

Action Plan: It is anticipated that the process of completing the Asset Management Plan will result in a system within the County that recognizes the need for substantial capital repairs and works toward providing the funding allocations to enable the work to be completed.

Key Indicator - Preventative Maintenance

Issue: The role of preventative maintenance plays an important part in the longevity of a building and the cost efficiencies of a building.

Potential Impact: By monitoring building systems, providing a consistent, regular preventative maintenance program will significantly aid in reducing building costs. The cost savings will be realized through fewer system failures over time and the decreased need to replace components and systems.

Current Controls: The role of Preventative Maintenance Technician has been filled effective October 21, 2013. This newly created position will develop and implement a preventative maintenance program to ensure the components within the building envelope operate as efficiently as possible, leading to fewer repairs and replacements.

Key Indicator - Energy Savings

Issue: As energy costs increase, the need to reduce usage is recognized.

Potential Impact: Utility costs have increased substantially and are predicted to continue in this manner.

Current Controls: Tenants are encouraged to reduce energy costs by keeping windows closed when heat or a/c is on, turning off lights, etc. Low flush toilets and aerators have been installed, and some energy efficient lighting.

Action Plan: The legislated Green Energy Act, O/Reg 397/11 will require all municipalities to have in place energy conservation and demand management plans.

Management Strategies – Housing Services

Legislative Requirements

The apartment buildings, detached houses and duplex units managed under the Huron County Housing Corporation are directly influenced by many legislative and regulatory requirements which prevent levels of service from declining below a certain standard, and ensure the total number of Social Housing units does not decrease.

Strategic and Corporate Goals

Infrastructure levels of service are influenced and guided by the County's strategic planning initiative. It is anticipated that the County's strategic plan will provide direction regarding the allocation of resources and the prioritization of how municipal tax dollars will be spent in the future.

Expected Asset Performance

As the buildings begin to age, the required upkeep is expected to increase to maintain levels of service. The detached houses and duplex units have an expected life span now at 30 years. Many of these houses were constructed in the late 1940s and early 1950s, and of basic construction. Although upgrades have been completed over the years, such as new windows, bathrooms, kitchens, toilets and insulation, these modest properties have had substantial wear and tear. Any strategic planning involving the County's buildings should include social housing properties. These are substantial

asset for the County, and the regeneration of these properties is vital to maintaining, or exceeding life expectancy of the buildings, and retaining legislated service level numbers.

Housing and Homelessness Plan

The Ministry of Municipal Affairs and Housing, under the *Housing Services Act, 2011*, requires all service managers to develop a 10 year Housing and Homelessness Plan. The Plan will assist in establishing priorities for Housing and homelessness services based on targeted consultations and research. Based on a projected need forecast, the Plan makes several recommendations that address homelessness and affordable Housing options, and has a strong emphasis on a mixed approach to Housing needs. Budget impact will depend greatly on the direction and recommendations the steering committee and the ongoing and potentially shifting needs of the County; the impact of these recommendations will be brought to County Council as required.

Availability of Finances

Availability of finances will be a key component in maintaining desired levels of service. Housing Services receives provincial and federal grants each year. A review of the funding levels for the five year time frame 2013 – 2017, indicates that the federal/provincial grants provided to the County will decrease by 5.3%. This will require an increased investment from the County to meet basic levels of service.

Energy Savings

As energy costs increase, the need to reduce utility consumption is recognized and the *Green Energy Act, O/Reg 397/11* will require all municipalities to have in place energy conservation and demand management plans.

HOMES FOR THE AGED INFRASTRUCTURE



Homes for the Aged Infrastructure

What does the County own?

The County of Huron has: 2 buildings - Huronview and Huronlea. The assets are located within the Home for the Aged network. All asset field assessments are carried out in the Homes for the Aged department. The results of the detailed inventory assessment of the targeted structures are summarized below.

County's inventory of Homes for the Aged infrastructure in accordance with best practices and current legislation.

Homes For The Aged Inventory		
Asset Type	Asset Component	Quantity
Building	Building	2
		2

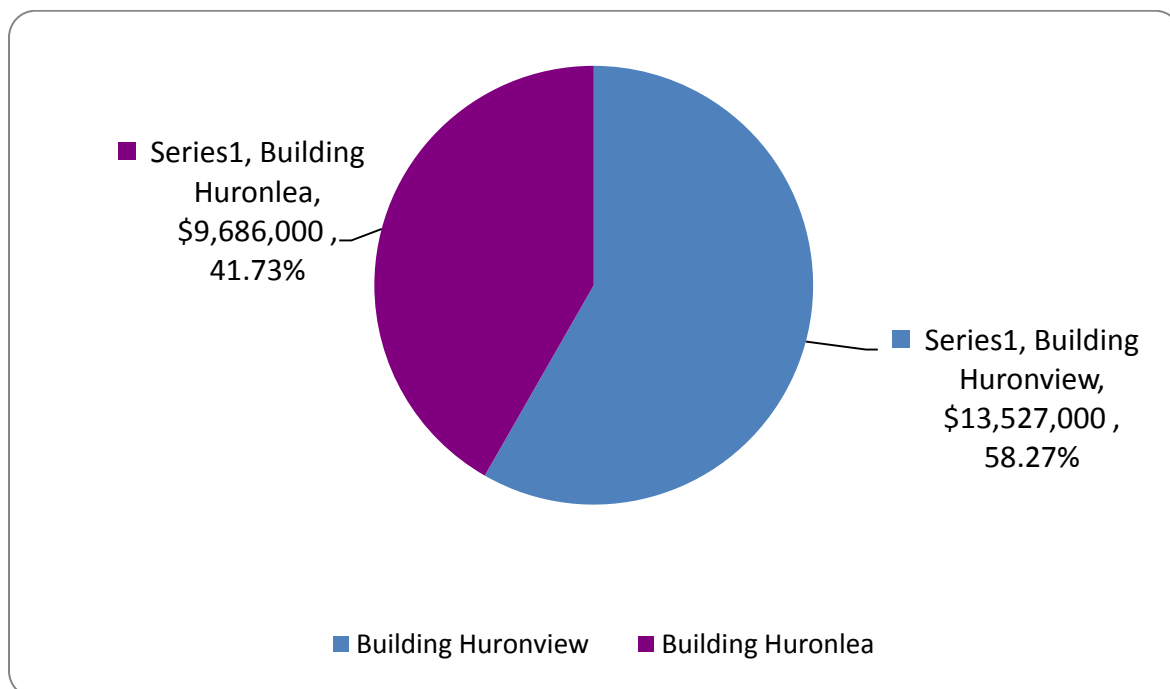
The Homes for the Aged infrastructure data was compiled from the tangible capital assets module, Great Plains software.

What is it worth?

Before managing an asset, it is important to know the value of the Homes for the Aged asset to determine if the maintenance dollars spent are justified to protect the asset. Based on the asset valuation process carried out as part of this assignment, the AMP Team, in consultation with staff calculated an approximation of the total estimated value of the assets of \$23.2 million.

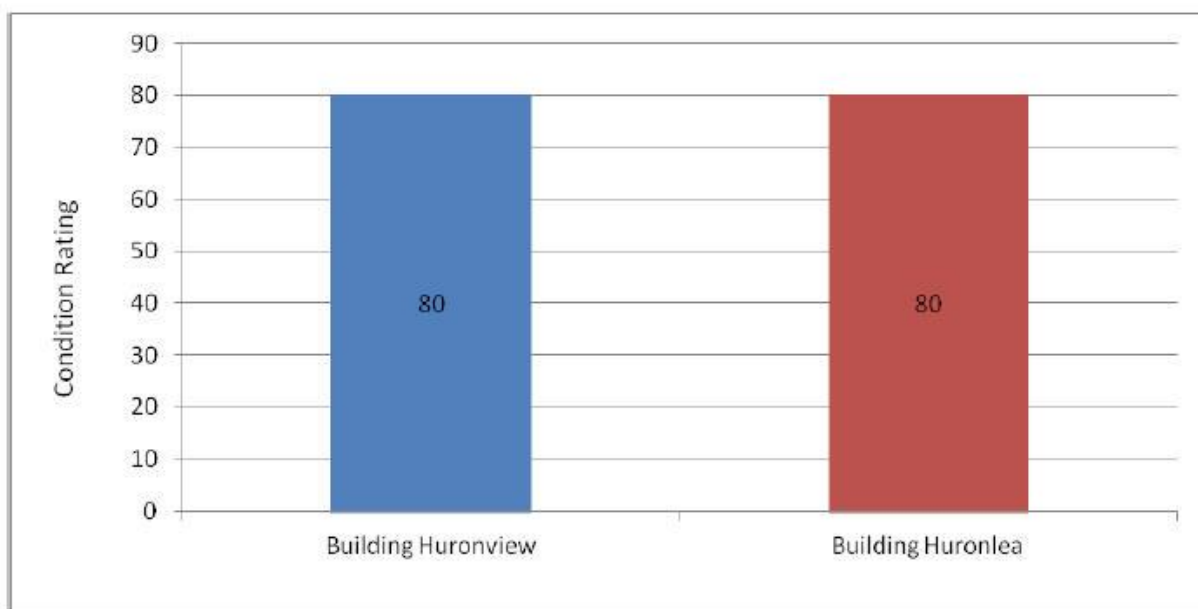
Homes For The Aged Replacement Value			
Asset Type	Quantity Square Foot	2012 Unit Replacement Cost	2012 Overall Replacement Cost
Building Huronview	81,000	\$167	\$13,527,000
Building Huronlea	58,000	\$167	\$9,686,000
			\$23,213,000

The pie chart below provides a breakdown of each of the Homes for the Aged Department asset types to the overall replacement value.



What condition is it in?

Condition assessment rating was carried out on the Homes for the Aged asset network, in consultation with Homes for the Aged Department, to identify the level of service considered acceptable by staff. The following results were obtained: Huronview and Huronlea are in good condition. The results of the detailed condition assessment of the targeted Assets are summarized below in the Graph.



The condition rating relates to the age and maintenance of the overall buildings and is a rating out of 100. When the rating is between 30 and 50 the item needs to be replaced. The rating system is as follows:

Excellent:	91 – 100	No evident defects
Good:	70 – 90	Slight decline
Fair:	51 – 69	Decline asset apparent
Poor:	30 – 50	Severe decline or failure

What do we need to do it?

Addressing Asset Needs		
Assets	Needs 1-5 yrs	Needs 6-10 yrs
Building Huronview	\$1,274,500	\$735,750
Building Huronlea	\$996,400	\$716,750
	\$2,270,900	\$1,452,500

When do we need to do it?

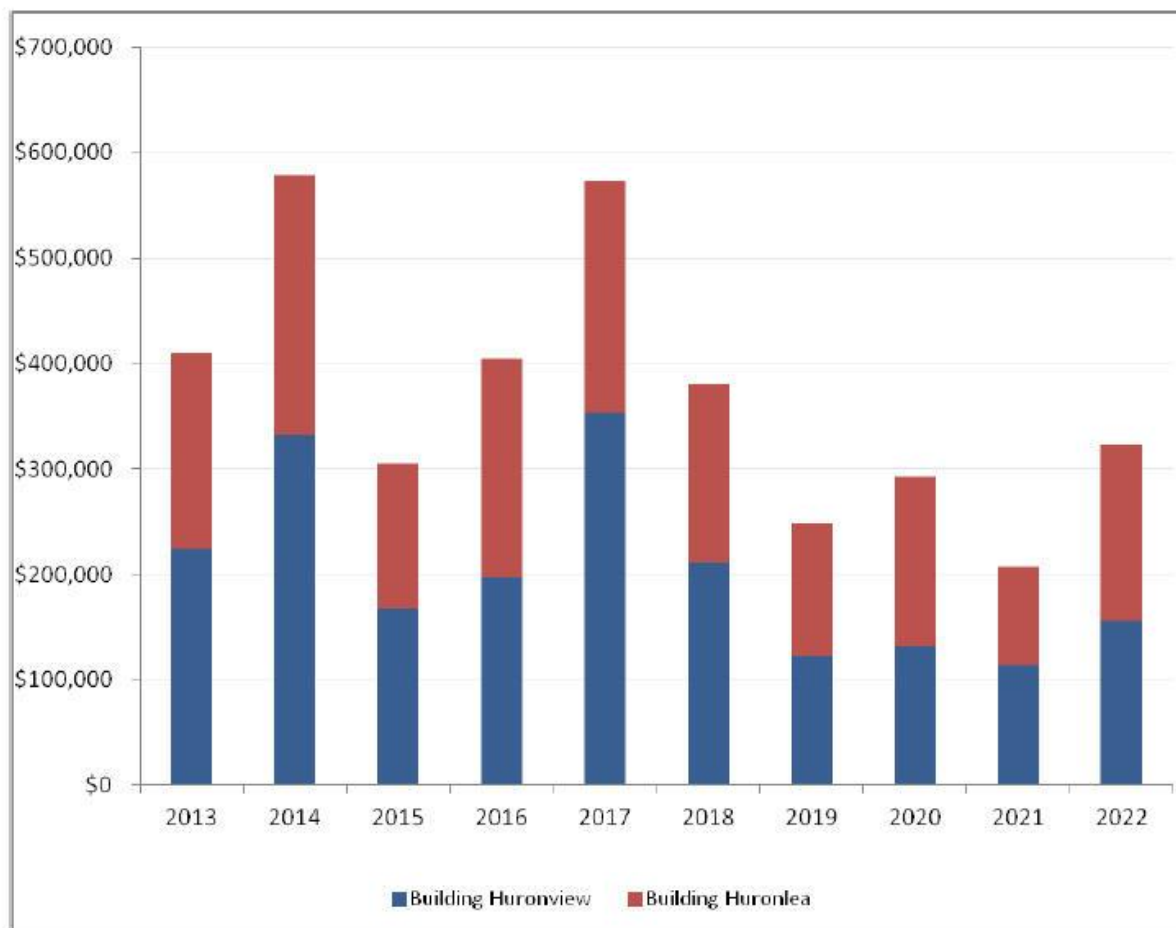
One criterion critical to rating the Homes for the Aged assets for the purposes of developing the AMP is the service life of the structure and its elements. As assets age, infrastructure managers must use experience and judgment to decide when maintenance is no longer cost effective thereby requiring that the structure be replaced.

Asset Useful Life in Years		
Asset Type	Asset Component	Useful Life
Building		60
Building Electrical		20
Building Equipment		5
Building Exterior		20
Building Interior		20
Building Mechanical		20
Building Site		22

How much money do we need?

This scenario is used to analyze and determine how much money is required on a yearly basis to replace all assets as they become in need of replacement. The following graph illustrates the results of our analysis for the Homes for the Aged Department.

Asset Replacement Summary



How do we reach sustainability?

The analysis revealed that the average yearly revenue required is \$372,340 to ensure that the level of service is maintained at today's level, over the next 10 years. The above graph also indicates that at that rate of funding the network needs are expected to be somewhat variable over the next ten years.

The tables below shows the values at 2012 net book value, which is the historical cost less depreciation. The table also shows the 2012 current value cost to replace. The table illustrates the variance between net book value and current 2012 cost. This explains the reason for Homes for the Aged requiring more funding than just raising depreciation to replace assets at current value.

Homes For The Aged Replacement Current Value vs Net Book Value				
Asset Type	Quantity	Useful Life	Current 2012	Net Book Value 2012
Building	2	60	\$23,213,000	\$13,262,006
			\$23,213,000	\$13,262,006

Recommendations

The Asset Management Plan Project managers recommend the following:

- Consideration of selected "what if" expenditure scenarios
- Production of a prioritized short and long term Capital Improvement Plan (CIP)
- Annual review of the Asset Management Plan
- Review every four years the Asset Management Plan policy
- Purchase software to manage and update the AMP
- Assist departments in budgeting for asset cost

Desired Levels of Service

Homes / Management Strategies

The Homes for the Aged have addressed infrastructure renewal strategies in their 10 year capital plan. The County of Huron's strategic planning initiative could impact the Homes direction in this regard.

Should the Homes be required to continue to operate in their original facilities, according to the County's strategic planning initiative, necessary capital and operational measures will continue as outlined in the desired level of service and 10 year capital / operational plan the Homes have developed.

As the MOHLTC regulations change so does the demands on operational and capital improvements to the Homes. As these can be unforeseen budgetary pressures it is vital all departments at the Homes maximize purchasing efficiencies.

As part of the budget planning process for the Homes it is recognized there will be upward pressure on various budget lines, at present and in the future, with consumables such as utility costs, resident care products and technology advancements being volatile commodities on the open market. The Homes continue to address this with partnerships such as Complete Purchasing Services buying group which helps to ensure competitive pricing for a wide variety of products used at the Homes.

Other cost-saving initiatives are being examined on a regular basis to maximize efficiencies and enhance our purchasing powers, such as the competitive Request for Proposal process in accordance with the County of Huron procurement policy for capital projects.

Huron County Homes for the Aged have been maintained in excellent condition and are well situated to continue to meet the desired levels of service for the foreseeable future with the continued commitment the County of Huron has provided.

The County of Huron is currently responsible for the operation and maintenance of 2 Homes for the Aged which also contains 40 seniors' apartments:

- **Huronview Home for the Aged - 77722A London Rd. Clinton Ont. - 118 Long Term Care beds, 2 short stay beds and 20 seniors' apartments.**

- **Huronlea Home for the Aged - 820 Turnberry St. S. Brussels, Ont. – 62 Long Term Care beds, 2 short stay beds and 20 seniors' apartments.**

Both Homes, built in 1992, have been well maintained and are now at an age when ongoing capital expenditures will be necessary to continue their excellent level of service to the community.

The Homes receive funding from the Ministry of Health and Long - Term Care (MOHLTC) and are governed by the Long- Term Care Homes Act – 2007 which legislates the operational standards the Homes must maintain. The County contributes the additional funds necessary to operate the Homes at a standard the community wishes to maintain.

The Homes have developed a 10 year Operational Plan to forecast approximated operational and capital requirements for the future, with adjustments for inflation.

The following capital assets are tracked to maintain the desired level of service:

HURONVIEW

Parking Lot Pavement:

The front, apartment, staff parking lots and rear fire access lane was repaved in 2001 and has been well maintained. It will require re-paving in 2017 which is indicated as a capital forecast in the 10 year plan.

Shingled Roof:

The roof underwent a phased replacement from 2009 to 2011 and is in excellent condition. Troughs and fascia are also in good condition. Its estimated replacement date is beyond the 10 year capital replacement plan.

Fire sprinkler system:

The fire sprinkler system, though well maintained, requires considerable updates to the piping throughout the Home. This has been addressed in the 10 year capital replacement plan with major sections of the piping recommended for replacement over 2014 to 2017 to meet the Homes desired level of service.

Main Chiller:

The main chiller unit was replaced in 2012 and is fully operational with no issues to report. The approximate replacement date for this chiller is 25 to 28 years and is beyond the 10 year capital replacement plan.

Heating Boilers:

Huronview has 3 original equipment hot water heating boilers which have been well maintained and one has undergone an emergency re-fitting to be fully functional for the 2013 – 2014 winter seasons. A phased replacement of the other two boilers has been addressed in the 10 year capital plan for 2017 and 2022.

Domestic Hot Water Boilers:

The original equipment High Temp and Low Temp domestic hot water boilers were replaced in 2012 with high efficiency units and are fully operational. Replacement will be addressed in mechanical upgrades but is beyond the 10 year capital replacement plan.

Diesel Generator:

The diesel generator is original equipment, has been well maintained and is fully operational. Replacement for this unit is beyond the 10 year capital replacement plan.

Fire Alarm System:

The fire alarm system including smoke and heat sensor equipment was updated over 2010 to 2012 and has been well maintained. The 3 panel replacement dates are beyond the 10 year capital replacement plan.

Building Automation System (BAS):

This system is a vital component to the heating and ventilation systems at the Home and allows the Home's maintenance staff to monitor, make adjustments and troubleshoot heating and cooling issues. It has been well maintained but is original equipment, is antiquated, and requires updating in order to maintain the desired level of service. This has been addressed in the 10 year capital replacement plan for 2014 to replace the system's computer modules and update the BAS software for the Home.

Heartland Apartment Chiller:

In 2012 we installed a 5 ton chiller unit to temper humidity issues in the Heartland apartment corridors. This unit is fully operational and its replacement is beyond the 10 year capital replacement plan.

Commercial Washers:

Huronview laundry department has 2- 60lb Unimac commercial washing units which were replaced 2009 to 2011, are fully operational, are well maintained and their replacement is beyond the 10 year capital replacement plan.

Commercial Dryers:

Huronview laundry department has 3 – 75lb- commercial gas dryers which were replaced 2009 to 2011, are fully operational, are well maintained and their replacement is beyond the 10 year capital replacement plan.

Resident Call Bell System:

This system was replaced 2010 – 2011, is fully operational, well maintained and will require a major upgrade by 2021 which is addressed in the 10 year capital replacement plan.

Security Locks / Resident Wander Guard System:

In compliance with MOHLTC regulated requirements the Home underwent substantive changes to its door locks and egress security systems including an Elpas Wandering Resident System. The system warns staff should a Resident be attempting unauthorized egress from the Home. A major system upgrade will be required in 2019 in order to maintain the legislated and otherwise desired level of service for the Homes Residents.

Building Humidifier System:

In 2012 the Home installed a Nortec, ultra high efficiency, state of the art building humidifier system. As this is new and developing technology there were some engineering issues through the winter of 2011 – 2012. The engineers from Nortec have solved the issues to date and the system will undergo a thorough test through the 2012-2013 winter seasons. Its replacement is beyond the 10 year capital replacement plan.

HURONLEA

Parking Lot Pavement:

The front, apartment, staff parking lots and rear fire access lane was repaved in 2001 and has been well maintained. It will require re-paving in 2017 which is indicated as a capital forecast in the 10 year plan.

Shingled Roof:

The roof underwent a phased replacement from 2010 to 2011 and is in excellent condition. Troughs and fascia are also in good condition. Its estimated replacement date is beyond the 10 year capital replacement plan.

Fire sprinkler system:

The fire sprinkler system, though well maintained, requires considerable updates to the piping throughout the Home. This has been addressed in the 10 year capital replacement plan with major sections of the piping

recommended for replacement over 2014 to 2018 to meet the Homes desired level of service.

Main Chiller:

The main chiller unit is original equipment and retrofitted with a new stage 2 compressor in 2012 and is fully operational with no issues to report. The approximate replacement date will be beyond the 10 year capital replacement plan.

Heating Boilers:

Huronlea has 2 original hot water heating boilers which have been well maintained and replacement of one unit has been addressed in the 10 year capital plan for 2020.

Domestic Hot Water Boilers:

The original equipment High Temp and Low Temp domestic hot water boilers were replaced in 2011 with high efficiency units and are fully operational. Replacement will be addressed in mechanical upgrades but is beyond the 10 year capital replacement plan.

Diesel Generator:

The diesel generator is original equipment, has been well maintained and is fully operational. Replacement for this unit is scheduled for 2022.

Fire Alarm System:

The fire alarm system including smoke and heat sensor equipment was updated over 2010 to 2012 and has been well maintained. The 2 panel replacement dates are beyond the 10 year capital replacement plan.

Building Automation System (BAS):

This system is a vital component to the heating and ventilation systems at the Home and allows the Homes maintenance staff to monitor, make adjustments and troubleshoot heating and cooling issues. It has been well maintained but is original equipment, is antiquated, and requires updating in order to maintain the desired level of service. This has been addressed in the 10 year capital replacement plan for 2014 to replace the systems computer modules and update the BAS software for the Home.

Highland Apartment Chiller:

In 2012 we installed a 5 ton chiller unit to temper humidity issues in the Highland apartment corridors. This unit is fully operational and its replacement is beyond the 10 year capital replacement plan.

Resident Call Bell System:

This system was replaced 2010 – 2011, is fully operational, well maintained and will require a major upgrade by 2021 which is addressed in the 10 year capital replacement plan.

Security Locks / Resident Wander Guard System:

In compliance with MOHLTC regulated requirements the Home underwent substantive changes to its door locks and egress security systems including an Elpas Wandering Resident System. The system warns staff should a Resident be attempting unauthorized egress from the Home. A major system upgrade will be required in 2019 in order to maintain the legislated and otherwise desired level of service for the Homes Residents.

Building Humidifier System:

The system is original equipment and will require complete replacement in 2015. Its replacement is scheduled in the 10 year capital replacement plan.

Both Huronview and Huronlea Homes have historically had excellent support from the County of Huron which has enabled the Home to be maintained at a high level of operational efficiency and a continued commitment by the County will ensure this desired level of service will continue for years to come.

EMERGENCY SERVICES



Emergency Services

What does the County own?

The County of Huron has: 10 Ambulances, 5 Rapid Response units, 2 Command Vehicles, 1 Emergency Support Trailer, 13 Defibrillators and 10 Autopulse. The assets are located within the Emergency Services network. All asset field assessments are carried out in the Emergency Services department. The results of the detailed inventory assessment of the targeted structures are summarized below.

County's inventory of Emergency Services in accordance with best practices and current legislation.

Emergency Services Inventory		
Asset Type	Asset Component	Quantity
Ambulances	Vehicle	10
Rapid Response Units	Vehicle	5
Command Vehicles	Vehicle	2
Defibrillators	Vehicle Equipment	13
Autopulse	Vehicle Equipment	10
Trailer	Vehicle Equipment	1
		41

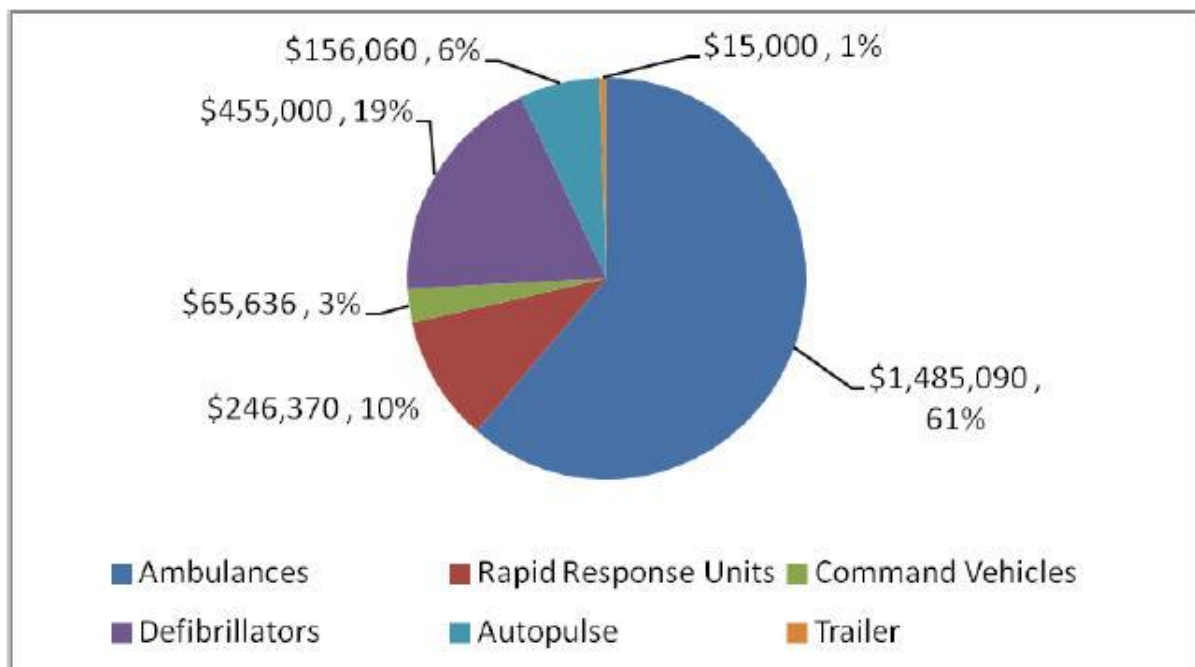
The Emergency Services data was compiled from the tangible capital assets module, Great Plains software.

What is it worth?

Before managing an asset, it is important to know the value of the Emergency Services asset to determine if the maintenance dollars spent are justified to protect the asset. Based on the asset valuation process carried out as part of this assignment, the AMP Team, in consultation with staff calculated an approximation of the total estimated value of the assets of \$2.5 million.

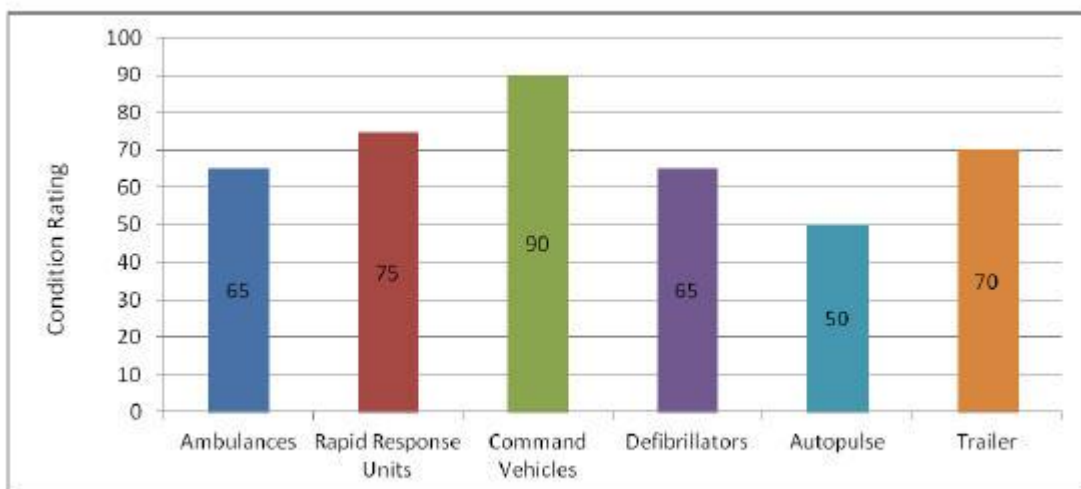
Emergency Services Replacement Value			
Asset Type	Quantity	2012 Unit Replacement Cost	2012 Overall Replacement Cost
Ambulances	10	\$148,509	\$1,485,090
Rapid Response Units	5	\$49,274	\$246,370
Command Vehicles	2	\$32,818	\$65,636
Defibrillators	13	\$35,000	\$455,000
Autopulse	10	\$15,606	\$156,060
			\$2,408,156

The pie chart below provides a breakdown of each of the Emergency Services Department asset types to the overall replacement value.



What condition is it in?

Condition assessment rating was carried out on the Emergency Services asset network, in consultation with Emergency Services Department, to identify the level of service considered acceptable by staff. The following results were obtained: the Autopulse units are in poor condition, ambulances and defibrillators are in fair condition, rapid response units are in good condition, while command vehicles are in excellent condition. The results of the detailed condition assessment of the targeted Assets are summarized below in the Graph.



The condition rating relates to the age and usage of the overall vehicles or devices and is a rating out of 100. When the rating is between 30 and 50 the item needs to be replaced. The rating system is as follows:

Excellent:	91 – 100	No evident defects
Good:	70 – 90	Slight decline
Fair:	51 – 69	Decline asset apparent
Poor:	30 – 50	Severe decline or failure

What do we need to do it?

Addressing Asset Needs		
Assets	Needs 1-5 yrs	Needs 6-10 yrs
Command Vehicles	\$32,818	\$65,636
Rapid Response Units	\$246,370	\$147,822
Ambulances	\$1,336,581	\$1,418,673
Defibrillator	\$490,000	\$350,000
Autopulse	\$62,424	\$78,030
Trailer	\$0	\$15,000
	\$2,168,193	\$2,075,161

When do we need to do it?

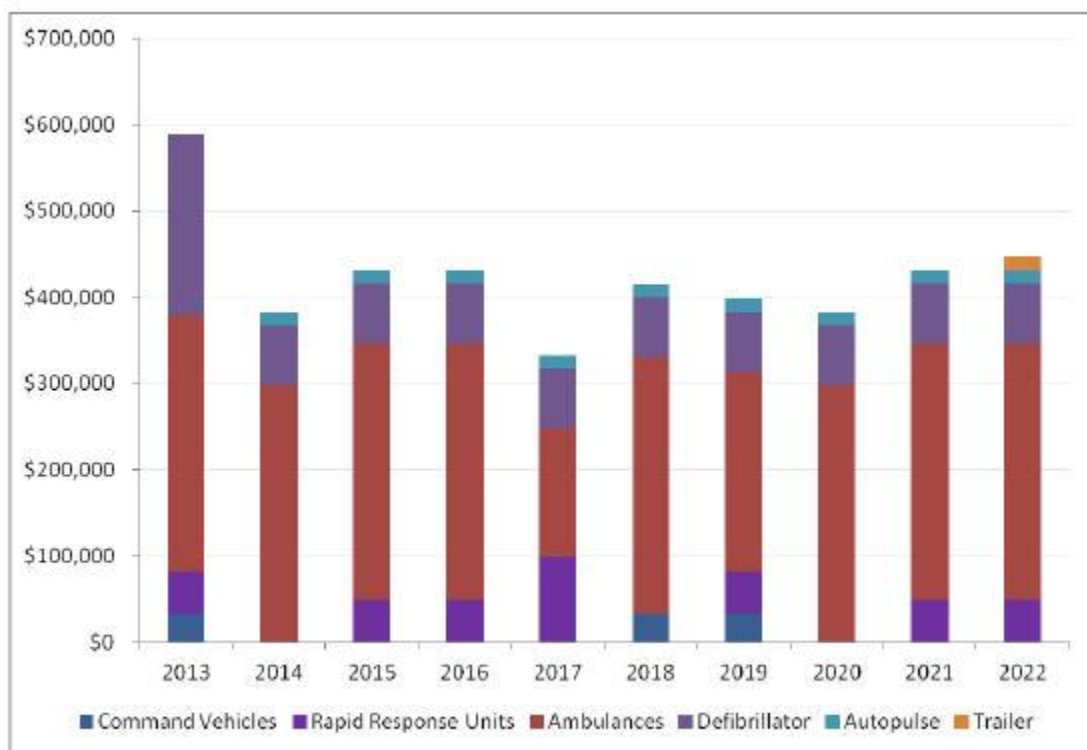
One criterion critical to rating the Emergency Services assets for the purposes of developing the AMP is the service life of the structure and its elements. As assets age, infrastructure managers must use experience and judgment to decide when maintenance is no longer cost effective thereby requiring that the structure be replaced.

Asset Useful Life in Years		
Asset Type	Asset Component	Useful Life
Ambulances	Vehicle	5
Rapid Response Units	Vehicle	5
Command Vehicles	Vehicle	5
Defibrillators	Vehicle Equipment	5
Autopulse	Vehicle Equipment	5
Trailer	Vehicle Equipment	10

How much money do we need?

This scenario is used to analyze and determine how much money is required on a yearly basis to replace all assets as they become in need of replacement. The following Graph illustrates the results of our analysis for the Emergency Services Department.

Asset Replacement Summary



How do we reach sustainability?

The analysis revealed that the average yearly revenue required is \$424,335 to ensure that the level of service is maintained at today's level, over the next 10 years. The above graph also indicates that at that rate of funding the network needs are expected to be somewhat constant over the next ten years.

The tables below shows the values at 2012 net book value, which is the historical cost less depreciation. The table also shows the 2012 current value cost to replace. The table illustrates the variance between net book value and current 2012 cost. This explains the reason for Emergency Services requiring more funding than just raising depreciation to replace assets at current value.

EMS Fleet Replacement Current Value vs Net Book Value				
Asset Type	Quantity	Useful Life	Current 2012	Net Book Value 2012
Ambulances	10	5	\$1,485,090	\$585,723
Rapid Response Units	5	5	\$246,370	\$163,362
Command Vehicles	2	5	\$65,636	\$27,839
Defibrillators	13	5	\$455,000	\$13,027
Autopulse	10	5	\$156,060	\$97,599
Trailer	1	5	\$15,000	\$2,511
			\$2,423,156	\$890,061

Recommendations

The Asset Management Plan Project managers recommend the following:

- Consideration of selected "what if" expenditure scenarios
- Production of a prioritized short and long term Capital Improvement Plan (CIP)
- Annual review of the Asset Management Plan
- Review every four years the Asset Management Plan policy
- Purchase software to manage and update the AMP
- Assist departments in budgeting for asset cost

Desired Levels of Service

The ambulances in our department cost approximately \$140,000 each and we have increased the life cycle from 60 to 72 months. These units are used for the transport of patients who are sick and injured. At this time we do not believe that there needs to be more than six transport ambulances with four spares to meet the needs of the fleet. Should the call volume increase or the response time needs decrease, then there will need to be an adjustment to the fleet compliments.

There are five rapid response units in our fleet which are used for first response. These vehicles are used to ensure our response time meets the County Council decision to ensure a 35% commitment to meeting the 8 minute response for all CTAS 1 returns. As well, there is a Council decision to ensure a 50% commitment to meeting the 17 minute response for all CTAS 2 and 3 returns. There is also a Council decision to ensure a 50% commitment to meeting the 120 minute response for all CTAS 4 calls and finally, there is a Council decision to ensure a 50% commitment to meeting the 240 minute response for all CTAS 5 calls. This obligation indicates that the current vehicle commitment can meet our obligation as determined by County Council.

The Command vehicles are also able to be used as first response vehicles as they carry sufficient equipment to render care until an RRU or ambulance can arrive on scene. These vehicles are also used to decrease costs for travel by departmental administrative staff in their normal duties. These units are also the command units at an incident, thus freeing up a transport unit should it be required.

There are 13 defibrillators for use in the ambulances and RRUs. These units are used to provide a controlled shock to the heart muscle in order to revert the heart to functioning rhythm. These devices are part of the chain of survival and we have had numerous saves in Huron County as a result of the efforts to meet the pre hospital cardiac needs of our citizens.

We have 10 autopulses in our system for providing cardiac compressions during a cardiac arrest. The ability of the unit to do compressions ensures that the patient is receiving the appropriate compressions over the length of the arrest and ensures that the paramedic is safe during the transport of cardiac arrest patients. Keeping health and safety in mind, this allows paramedics are able to wear their seatbelts in the back of the vehicle rather than standing up trying to do CPR.

Key Performance Indicators

Key Indicator - Call Volume

Issue: Increases to the various categories will cause change requirements to the deployment plan and positioning of resources.

Total call Volume

2008 – 7,203

2009 – 8,134

2010 – 9,433

2011 – 11,613

2012 – 12,378

Potential Impact: The need to have ample vehicles available to meet the needs as assigned by the Central Ambulance Communications Centre (CACC). If the vehicles are not in the area of increasing call volume then either the vehicles positioning needs to be reassigned or there needs to be an increase in the vehicles available.

Current Controls: The assignment of calls is controlled by the Dispatch (CACC). Their operational policies are controlled by the EHSB (Province) with some input from operators; however, final decision rests with the CACC. The local deployment strategy assists both parties in meeting these objectives.

Action plan: The call volume is continually monitored through both the Ambulance Dispatching Report System (ADRS) and Huron County's electronic Patient Call Report (ePCR) to ensure that the call volume increases are assessed and rationalized for spikes in call volume.

Key Indicator -Response Times

Issue: The standard for response times in Huron County is 8 minutes for CTAS 1; 17 minutes for CTAS 2; 17 minutes for CTAS 3; 120 minutes for CTAS 4 and 240 minutes for a CTAS 5. This changed in 2011 from the previous 90th percentile for Huron County of 17 minutes 22 seconds for all responses.

Potential Impact: Increased high priority calls from hospitals (Code 4 response) results in that unit being committed and unable to respond to other calls while en-route. This creates a need for increased vehicles as the

originally assigned unit on a code 4 will not be diverted even if they drive by a second code 4.

Current Controls: The assignment of calls is controlled by the Dispatch (CACC). The local service monitors the response time and takes appropriate steps to ensure that the response times meet the agreement and adjusts their actions based on the results.

Action plan: Should call volume increase or we are unable to meet the agreed upon response times, an adjustment to both the location of vehicles and/or the number of vehicles available is determined and appropriate approvals are obtained to make these changes occur.

FINANCIAL ANALYSIS



Before managing an asset, it is important to know the value of the asset to determine if the maintenance dollars spent are justified to protect the asset. Based on the asset valuation process carried out as part of this assignment, the Asset Management Team, in consultation with staff, calculated an approximation of the total value of the assets managed by the County. The following table summarizes the results.

	Asset Type	Quantity	Replacement Value2012	Historical Cost	Net Book Value 2012	NBV %
PW	Surface (Road)	775 kilometres	\$159,111,507	\$125,116,237	\$66,270,753	52.97%
PW	Base (Road)	775 kilometres	\$426,304,886	\$289,932,912	\$1,160,457	0.40%
PW	Culvert<3m	265	\$133,279,605	\$24,909,292	\$16,355,138	65.66%
PW	Culvert>3m	109	\$39,888,543	\$5,930,481	\$3,188,812	53.77%
PW	Surface (Bridge)	98	\$18,799,118	\$3,004,578	\$801,413	26.67%
PW	Substructure (Bridge)	98	\$39,307,246	\$5,927,918	\$3,083,141	52.01%
PW	Superstructure (Bridge)	98	\$92,286,578	\$26,841,018	\$16,340,600	60.88%
PW	Safety (Bridge)	98	\$20,508,128	\$4,726,752	\$1,440,805	30.48%
PW	Auburn Works Yard	1	\$3,895,000	\$762,060	\$60,008	7.87%
PW	Wingham Works Yard	1	\$1,681,200	\$235,727	\$105,465	44.74%
PW	Wroxeter Works Yard	1	\$2,400,000	\$1,028,314	\$610,331	59.35%
PW	Zurich Works Yard	1	\$1,900,000	\$1,471,765	\$1,310,937	89.07%
PW	Fleet 5 year	44	\$1,434,000	\$1,223,000	\$473,143	38.69%
PW	Fleet 10 year	28	\$4,141,000	\$3,482,644	\$1,990,503	57.15%
PW	Fleet 15 year	18	\$2,955,135	\$2,793,062	\$1,489,065	53.31%
PS	Historical Buildings	3	\$28,390,000	\$6,951,941	\$4,180,593	60.14%
PS	Office Buildings	3	\$7,650,000	\$2,413,504	\$1,574,339	65.23%
PS	Transformer Building	1	\$137,500	\$48,546	\$12,204	25.14%
PS	Storage Buildings	3	\$782,375	\$293,505	\$220,535	75.14%
PS	Ambulance Buildings	4	\$2,022,864	\$1,424,185	\$1,201,827	84.39%
PS	Health and Library building	1	\$8,125,000	\$2,038,842	\$1,102,815	54.09%
PS	Pump House Building	1	\$961,803	\$961,803	\$874,367	90.91%
SH	Building Apartments	16	\$38,799,351	\$14,952,340	\$12,714,760	85.04%
SH	Building Family units Single	35	\$4,520,956	\$3,189,042	\$1,944,526	60.98%
SH	Building Family units Duplex	39	\$5,314,384	\$2,196,329	\$1,430,827	65.15%
SH	Building Family units Row	10	\$957,708	\$476,395	\$293,741	61.66%
HA	Building (Homes For The Aged)	2	\$23,213,000	\$20,018,599	\$13,262,006	66.25%
ES	Ambulances	10	\$1,485,090	\$1,389,476	\$585,723	42.15%
ES	Rapid Response Units	5	\$246,370	\$227,713	\$163,362	71.74%
ES	Command Vehicles	2	\$65,636	\$55,414	\$27,839	50.24%
ES	Defibrillators	13	\$455,000	\$244,631	\$13,027	5.33%
ES	Autopulse	10	\$156,060	\$135,143	\$97,599	72.22%
ES	Trailer	1	\$15,000	\$15,067	\$2,511	16.67%
			\$1,071,190,043	\$554,418,236	\$154,383,175	

Key:

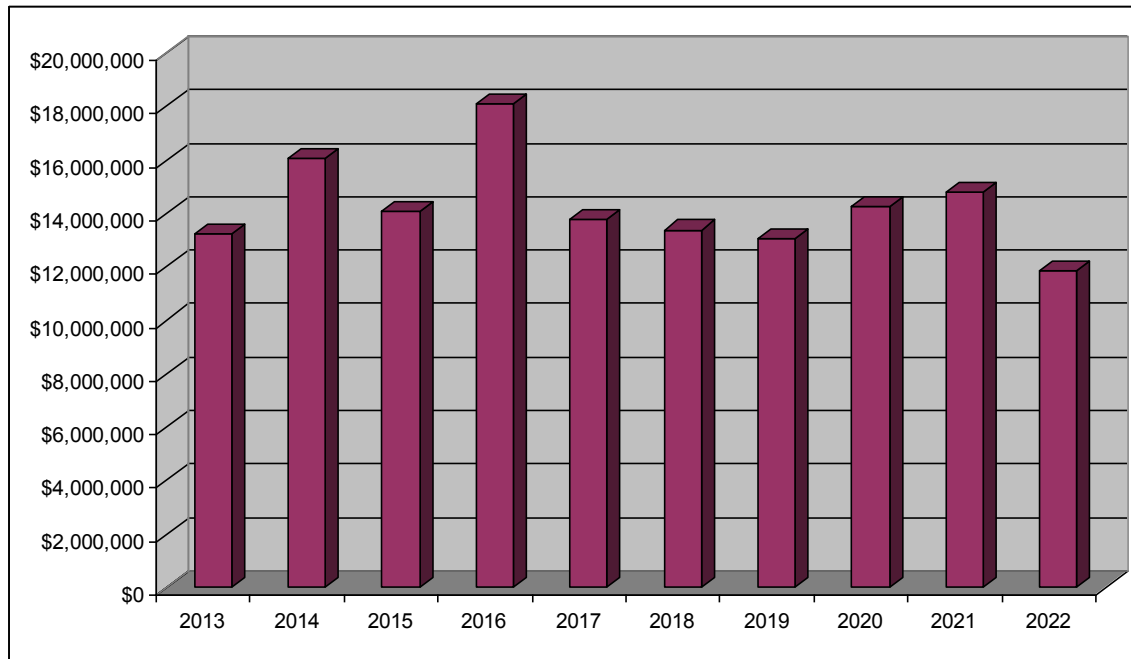
PW	Public Works
PS	Property Services
SH	Social Housing
HA	Homes For The Aged
ES	Emergency Services

The current replacement cost (2012) of the infrastructure assets for the County is over one billion dollars, compared to almost 154 million dollars net book value at the end of 2012. This is only 6.97% of the replacement cost, as the assets have been significantly depreciated. When you are raising funds for infrastructure, you need more than the levy raised from depreciation to keep up with the needs of the County and to keep the level of service at the standards the County feels confident with.

The chart below shows the County's consolidated needs for the next ten year consolidated plan. This is an estimated forecast amount, as desired level of services can change; driven by the needs of the community, and or changes in legislation, or changes due to unforeseen circumstances.

Yearly Estimated Total Infrastructure Cost									
2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
\$13,263,263	\$16,058,315	\$14,083,138	\$18,127,724	\$13,767,975	\$13,394,707	\$13,052,396	\$14,243,167	\$14,794,393	\$11,850,424

When looking at the chart below it indicates the need to use future sustainability to level out the cost from year to year instead of having instability for the annual budgets and County levy. When planning for the annual budgeting of infrastructure: whether maintenance or replacement, the needs and level of service today and the future of the County must be taken into account.



The chart below shows the consolidated needs for the County in 5 year intervals. The County's estimated yearly average needs are \$14.3 million over the next 10 years. The first 5 years average shows higher needs of the ten year plan.

Addressing Asset Needs		
Assets	Needs 1-5 yrs	Needs 6-10 yrs
All County Infrastructure	\$75,300,415	\$67,335,086

The County of Huron staff used several different resources to build the 10 year asset plan for the consolidated financial portion of the asset management plan. As such, the asset management plan is at the beginning stages. The County staff worked together to build a consolidated plan, but the plan is still in the preliminary stages, so this plan is a starting point. The asset management plan committee aims to see the plan implemented into asset software to be able to fully benefit from the plan. As asset conditions change throughout the asset life cycle, the plan can be updated, making financial analyses more uniformed for staff. Utilizing asset management software makes yearly updates more efficient and accurate for providing reports to Council, Ministry, and the public. When looking at the asset management plans financial portion, working through a full fiscal year will be **beneficial to be able to analyze the financial needs of the County's assets** with having the maintenance cost attached directly to the assets.

The table below show the level of funding that would be required to maintain **the County's assets to meet the desired**

Additional Funding Requirements

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Average Yearly Cost
Total cost for Buildings	\$3,679,495	\$3,589,741	\$3,743,153	\$3,908,691	\$4,896,740	\$6,577,826	\$2,567,312	\$2,426,265	\$1,983,464	\$3,171,910	\$3,926,862	\$2,040,893	\$3,524,312
Funding from depreciation	\$1,156,723	\$1,247,222	\$1,290,875	\$1,336,055	\$1,382,817	\$1,431,216	\$1,481,308	\$1,533,154	\$1,586,815	\$1,642,353	\$1,699,836	\$1,759,330	\$1,514,376
Additional requirement for full funding	\$2,522,772	\$2,342,519	\$2,452,278	\$2,572,636	\$3,513,923	\$5,146,610	\$1,086,004	\$893,111	\$396,649	\$1,529,557	\$2,227,026	\$281,563	\$2,009,936
Total Cost for Culverts and Bridges	\$1,546,856	\$1,330,151	\$2,340,000	\$1,920,000	\$2,020,000	\$1,965,000	\$2,500,000	\$2,000,000	\$2,354,633	\$2,354,633	\$2,354,633	\$2,354,633	\$2,216,353
Funding from depreciation	\$1,081,784	\$1,114,905	\$1,153,927	\$1,194,314	\$1,236,115	\$1,279,379	\$1,324,157	\$1,370,503	\$1,418,471	\$1,468,117	\$1,519,501	\$1,572,684	\$1,353,717
Additional requirement for full funding	\$465,072	\$215,246	\$1,186,073	\$725,686	\$783,885	\$685,621	\$1,175,843	\$629,497	\$936,162	\$886,516	\$835,132	\$781,949	\$862,636
Total cost for Roads	\$4,933,826	\$5,199,107	\$5,780,000	\$9,160,000	\$6,083,000	\$8,266,000	\$7,560,000	\$7,730,000	\$7,442,000	\$7,226,000	\$7,088,000	\$6,408,000	\$7,274,300
Funding from depreciation	\$5,639,931	\$5,483,191	\$5,675,103	\$5,873,731	\$6,079,312	\$6,292,088	\$6,512,311	\$6,740,242	\$6,976,150	\$7,220,315	\$7,473,027	\$7,734,582	\$6,657,686
Gas tax revenue(2012-2015)	\$1,819,794	\$1,819,794	\$1,819,794	\$1,819,794	\$1,819,794								
Additional requirement for full funding	(\$2,525,899)	(\$2,103,878)	(\$1,714,897)	\$1,466,475	(\$1,816,106)	\$1,973,912	\$1,047,689	\$989,758	\$465,850	\$5,685	(\$385,027)	(\$1,326,582)	\$616,614
Total cost for Fleet	\$1,109,583	\$1,027,341	\$1,190,110	\$984,018	\$997,792	\$1,233,292	\$1,055,057	\$1,152,836	\$1,186,693	\$1,405,018	\$1,339,292	\$961,292	\$1,150,540
Funding from depreciation	\$731,160	\$785,932	\$813,440	\$841,910	\$871,377	\$901,875	\$933,441	\$966,111	\$999,925	\$1,034,922	\$1,071,145	\$1,108,635	\$954,278
Additional requirement for full funding	\$378,422	\$241,409	\$376,670	\$142,108	\$126,415	\$331,417	\$121,616	\$186,725	\$186,768	\$370,096	\$268,147	(\$147,343)	\$196,262
Total cost for ES Equipment	\$77,271	\$0	\$210,000	\$85,606	\$85,606	\$85,606	\$85,606	\$85,606	\$85,606	\$85,606	\$85,606	\$85,606	\$98,045
Funding from depreciation	\$29,598	\$30,854	\$31,934	\$33,052	\$34,208	\$35,406	\$36,645	\$37,927	\$39,255	\$40,629	\$42,051	\$43,523	\$37,463
Additional requirement for full funding	\$47,674	(\$30,854)	\$178,066	\$52,554	\$51,398	\$50,200	\$48,961	\$47,679	\$46,351	\$44,977	\$43,555	\$42,083	\$60,582

*Depreciation is calculated at 2012 dollars with 3.5% inflation

	Asset Type	ESL	Current Value2012	Replacement Cost / yr	2012 Depreciation	YR Replacement Short Fall
PW	Surface (Road)	22	\$159,111,507	\$7,232,341.23	\$5,475,727	\$1,756,614.33
PW	Base (Road)	75	\$426,304,886	\$5,684,065.15	\$7,464	\$5,676,601.15
PW	Culvert<3m	75	\$133,279,605	\$1,777,061.40	\$330,864	\$1,446,197.43
PW	Culvert>3m	75	\$39,888,543	\$531,847.24	\$75,230	\$456,617.25
PW	Surface (Bridge)	22	\$18,799,118	\$854,505.36	\$52,727	\$801,778.56
PW	Substructure (Bridge)	75	\$39,307,246	\$524,096.61	\$78,427	\$445,669.36
PW	Superstructure (Bridge)	50	\$92,286,578	\$1,845,731.56	\$466,822	\$1,378,909.76
PW	Safety (Bridge)	22	\$20,508,128	\$932,187.64	\$111,384	\$820,803.30
PW	Auburn Works Yard	60	\$3,895,000	\$64,916.67	\$10,678	\$54,238.28
PW	Wingham Works Yard	60	\$1,681,200	\$28,020.00	\$5,260	\$22,760.13
PW	Wroxeter Works Yard	60	\$2,400,000	\$40,000.00	\$36,017	\$3,983.42
PW	Zurich Works Yard *	30	\$1,900,000	\$63,333.33	\$42,942	\$20,390.88
PW	Fleet 5 year	5	\$1,434,000	\$286,800.00	\$140,558	\$146,242.07
PW	Fleet 10 year	10	\$4,141,000	\$414,100.00	\$261,033	\$153,067.22
PW	Fleet 15 year	15	\$2,955,135	\$197,009.00	\$170,885	\$26,124.03
PS	Historical Buildings	60	\$28,390,000	\$473,166.67	\$189,059	\$284,107.74
PS	Office Buildings*	40	\$7,650,000	\$191,250.00	\$146,910	\$44,340.15
PS	Transformer Building	60	\$137,500	\$2,291.67	\$809	\$1,482.57
PS	Storage Buildings	60	\$782,375	\$13,039.58	\$5,868	\$7,171.25
PS	Ambulance Buildings	60	\$2,022,864	\$33,714.40	\$23,736	\$9,977.97
PS	Pump House Building*	20	\$961,803	\$48,090.15	\$44,078	\$4,012.15
SH	Building Apartments	50	\$38,799,351	\$775,987.01	\$237,608	\$538,379.27
SH	Building Family units Single	30	\$4,520,956	\$150,698.53	\$99,072	\$51,626.12
SH	Building Family units Duplex	30	\$5,314,384	\$177,146.13	\$69,282	\$107,863.83
SH	Building Family units Row	30	\$957,708	\$31,923.60	\$19,588	\$12,335.50
HA	Building (Homes For The Aged)	60	\$23,213,000	\$386,883.33	\$341,357	\$45,526.26
ES	Ambulances	5	\$1,485,090	\$297,018.00	\$162,830	\$134,188.17
ES	Rapid Response Units	5	\$246,370	\$49,274.00	\$38,847	\$10,427.41
ES	Command Vehicles	5	\$65,636	\$13,127.20	\$6,696	\$6,431.20
ES	Defibrillators	5	\$455,000	\$91,000.00	\$6,548	\$84,451.69
ES	Autopulse	5	\$156,060	\$31,212.00	\$24,306	\$6,906.31
ES	Trailer	5	\$15,000	\$3,000.00	\$3,013	\$0.00
Total			\$1,063,065,043	\$23,244,837	\$8,685,626	\$14,559,225

Key:

PW	Public Works
PS	Property Services
SH	Social Housing
HA	Homes For The Aged
ES	Emergency Services

* is a blended ESL between buildings and equipment

What we get from the above table is that, averaged over the various estimated services lives (ESLs) of the various asset groups, to be fully funded the amount levied with respect to achieving full sustainability would be approximately \$23.2 million per year. The current depreciation, used to partially fund the capital asset program, is \$8.7 million. This means that the County must plan to increase annual funding, over a number of years, of \$14.6 million. Extended over 20 years as an example, this would indicate a planned increase to the levy of around \$730,000 per year.