Comprehensive Asset Management Plan

Bylaw No. 5072

September 19, 2016

Asset Management Definition "The combination of management, financial, economic, engineering, operational and other practices applied to the physical assets with the objective of providing the required level of service in the most cost effective manner".

InfraGuide

EXECUTIVE SUMMARY

An asset management plan is a summary document that provides a comprehensive reference for council, managers and staff regarding the operation, maintenance, renewal and replacement of capital assets. SDG Counties has reviewed all of its long range infrastructure strategies, current technical and financial practices and consolidated them into the following Asset Management Plan.

Municipal government in Stormont, Dundas and Glengarry is structured in a two-tier system. The six local municipalities provide key public services that involve capital assets, such as library facilities, water systems, sanitary sewer systems, recreation facilities, fire protection, etc. SDG Counties purchases some services from other municipalities and organizations resulting in the Counties not owning any capital assets in relation to social housing, home for the aged, emergency medical services, social services and policing. County roads and bridges account for the largest value of capital assets owned by SDG Counties.

The importance of roads and bridges and their challenges are highlighted in the Eastern Ontario Wardens' Caucus *Report on the Financial Sustainability of Local Government in Eastern Ontario*. This report concludes that municipalities have limited resources with which to address major infrastructure challenges and states "Rural Eastern Ontario is carrying most of the responsibility for the region's roads and bridges, being responsible for 73 per cent of its roads and 60 per cent of its structures. Included in the total is nearly 4,000 lane-kilometers of provincial roads (and associated bridges) downloaded to local governments in the late 1990s."

At this time, funding and associated resources remain the most significant challenge in reaching sustainable infrastructure services; particularly with high-cost core services such as roads and bridges. Based on sufficient funding the County Road 2 Long Sault improvements, such as roundabouts, would be a priority project.

SDG Counties' asset management decisions will be based on the following asset management framework:

- SDG Counties aims to deliver quality services at the lowest possible tax structure; optimal asset management cannot be achieved through the property tax base alone, therefore all funding opportunities will be pursued. The fundamental road management strategy is **preservation**; the top priority is to 'keep good roads good'; the resurfacing program targets 50 km per year in order to maintain the overall health of the road system.
- Funding programs will be used to address the backlog of priority capital projects above and beyond annual preservation work planned by Council. Priority capital projects will be reviewed and confirmed by Council on a regular basis.
- Traffic counts will be used to determine road classifications as outlined in the Minimum Maintenance Standards Regulation 239/02; regular traffic counting,

including truck counts, will be performed so that the entire road system is completed on a continuous 3 to 5 year cycle.

- Complying with the Standards for Bridges Regulation 107/97, all SDG Counties bridges, including culverts 3m or greater in diameter, will continue to be inspected every 2 years. Medium sized culverts (1.2m to 2.9m) will be inspected on a 2 to 4 year cycle.
- In order to monitor change in condition and measure the effectiveness of the asset management, road condition inspections will also be completed every 2 to 4 years;
- Road rationalization analysis should be continued to review the role and purpose of the individual roads that make up the County road system.
- The annual road tour will continue to be conducted in order to view and discuss specific issues so that all Council Members are familiar with significant future projects across SDG Counties.
- SDG Counties' assets, including the road network, will be considered as a whole system without undue influence from municipal boundary divisions.
- Building and equipment asset management will have due consideration towards reducing hazardous materials, achieving accessibility standards and improving energy efficiencies.
- Replacing trucks on a regular timeline results in an evenly age-distributed fleet providing predictable and stable purchasing and maintenance costs. Based on historical driving kilometers and heavy plowing wear & tear, a lifecycle of 12 to 16 years is optimal for County plow trucks to be in active service. This lifecycle is reviewed annually and may change due to new technology or processes that may provide longer vehicle life expectancy.
- Best practices will be monitored & evaluated; bridge and pavement preservation technologies and products will be reviewed for potential implementation.
- Joint purchasing and project partnerships will be pursued when practical and beneficial.
- Reserves are a financial management tool that is an essential part of a sound fiscal plan to address long-term objectives and provide budget stability. Financial planning with reserves is intended to balance current and future requirements and assist in delivering public services within manageable property tax rates.
- In order to obtain the lowest cost over the life of an asset, project financing will be based on a 'pay-as-you-go' standard, unless external borrowing is justified through a detailed cost/benefit analysis. Debt should only be considered for one-time capital projects and the repayment term should not extend longer than the shortest estimated life of the asset.
- This asset management plan is a living document and will be regularly reviewed in order to maintain current information, document additional processes, identify investment gaps or service delivery issues, be responsive to changes in strategies,

incorporate best practices that have been successful elsewhere, be expanded to include additional plan enhancements, etc.

- Following Council acceptance of audited financial statements, the financial information reported in the schedules of this document may be updated by staff without being reconfirmed by Council.

The asset management plan as presented in this report is comprised of the following two components:

- The first component (text section) provides an overview of the fundamentals of an asset management plan based upon best management practices obtained from SDG Counties' current practices, best practices in other municipalities, information provided from various municipal organizations and guidance from the Province of Ontario.
- The second component (schedules section) is an asset management strategy for each asset class owned by SDG Counties such as bridges, roads, buildings, vehicles & road equipment, office equipment and land & land improvements.

This format was selected to ensure that the asset management strategies as attached could be revised from time to time according to changes in best management practices, advances in technology, financial constraints, or changes to the condition assessments.

INTRODUCTION

SDG Counties and its residents greatly depend on infrastructure since it supports economic activity and improves quality of life. Managing our assets is an integral part in being able to reach our municipal goals and priorities.

The asset management plan for SDG Counties has been based on its Public Sector Accounting Board (PSAB) 3150 data in relation to accounting for tangible capital assets. Capitalization thresholds, inventories, historical cost, amortization, useful life, etc. are the same for both PSAB accounting and asset management purposes. Capital assets included in this asset management plan are: bridges, roads (including base, surface, guiderail, illumination, traffic signals, and storm drain systems), buildings, vehicles & road equipment, office equipment, and land (including land improvements).

The Strategic Plan for SDG Counties identifies the following strategic priorities:

1. Preserve and enhance historical, cultural, tourism & recreational features and protect the local environment to maintain the quality of life.
2. Develop a plan for economic development.

3. Develop an inventory of infrastructure and financing of.
4. Greater local government coordination in the delivery of services and pooling of scare resources for greater impact.

The Official Plan for SDG Counties identifies the following goals:

1. To achieve a compact and energy efficient land use pattern that optimizes the use of available or planned infrastructure (roads, water, sewage, waste disposal, utilities) and public service facilities (schools, health care, recreation and cultural facilities, fire, police and emergency services) and which uses densities and development standards which are cost effective and compatible with the prevailing and emerging character of settlement areas.
2. To achieve a level of public services and infrastructure that is accessible, available, cost-effective and efficient in meeting the needs of existing and new development.
3. To manage the community's renewable and non-renewable resources in a responsible manner through the development of policies, tools and practices designed to identify, protect, conserve, enhance or utilize these resources over the short and long-term and which provide for the transition to other land uses where a non-renewable resource has been depleted.
4. To safeguard the public and the natural environment from natural and human-made hazards through the development of policies, tools and processes to identify, evaluate, prevent or protect against such hazards.
5. To manage the community's heritage resources in a responsible manner through the development of policies, tools and processes to identify, recognize, document, protect, rescue and conserve these resources.

Asset Management Plan – What is it?

An Asset Management Plan is a plan developed for the management of one (1) or more infrastructure assets within the municipality that combines multi-disciplinary management techniques, including technical and financial, over the lifecycle of the asset(s), to a specified level of service in the most cost-effective manner.

Integrated asset management plans are similar to the description provided above. The integration refers to the infrastructures that share a common location within the corridor such as road surface, base, bridges, etc. Each asset has a different life cycle which results in the need for the technical and financial experts to consult and determine, based upon the condition of each asset, the need for replacement or rehabilitation. A road that requires resurfacing drives the need to review the condition of the whole system resulting in an overall strategy. Coordination with local Townships is also required since water or sanitary sewer system projects may require County road rehabilitation.

An asset management plan also incorporates the existing preventative maintenance and risk management programs to preclude the risk of failure. The preventative maintenance

component ensures that the day-to-day wear and tear on the asset is dealt with to ensure that the asset can reach its expected life cycle. The risk management component ensures that Management manages the risk through due diligence.

Asset Management Plan – What are the benefits?

Specific benefits associated with an Asset Management Plan are:

- Allows for strong decision making regarding resource allocation;
- Facilitates the establishment and subsequent implementation of policy objectives and the related measurement of performance;
- Helps to avoid problems and potential crises;
- Provides consistent levels of service to the public;
- Leads to more effective communications with rate payers, elected officials, financial rating organizations and regulatory agencies;
- Reduces lifecycle costs;
- Reduces risk to the municipality;
- Allows for more effective financial planning;
- Leads to more efficient data management;
- Results in positive institutional change.

Asset Management Plan – What are the key principles?

Asset management can be characterized by the following key principles:

- A strategic and proactive approach that places a premium on data, information, collaboration and interdisciplinary management;
- A comprehensive long-term view of infrastructure performance and cost;
- An explicit, visible and transparent approach that requires effective communication among all stakeholders;
- A business case involving investment choices that are policy driven and tradeoffs among competing priorities.

Asset Management Plan – What are the components?

In order for an asset management plan to fulfill the rationale of asset management the following components must be contained in the overall plan:

1. Asset Value: All municipal infrastructure assets have a monetary value. Historical cost has been determined through the Tangible Capital Asset processes using PSAB 3150 Guidelines. Replacement costs are estimates that have been obtained from applicable technical reports or determined based on the asset's life cycle and an appropriate rate of inflation.

2. Life Cycle: All assets have a limited life expectancy and, to some degree, the rate of deterioration can be estimated. A decision made at any point in time in the life cycle of an asset has an effect on the remaining life and may have operational implications or related costs.

3. Sustainability: In terms of asset management, sustainable development has been defined as "meeting the needs of the present generation without comprising the ability of future generations to meet their own needs". This definition has been extracted from the National Guide to Sustainable Municipal Infrastructure. The asset management plan needs to identify a financial plan over the long term to ensure that sufficient monies are available. These monies provide the resources required to operate, rehabilitate, and ultimately replace the asset at the optimal time with the intention of achieving the lowest life cycle cost. The plan helps to ensure that current users pay a fair share of the service they receive so that future users do not have to pay a higher cost for the same level of service; this ensures multigenerational equity and fairness.

4. Integration: The technical plan must minimize life cycle costs for the infrastructure while maintaining an adequate level of service at the lowest possible level of risk. The financial plan must identify the financial investment required per year for each asset over the long term, including any larger than normal expenditures to meet the requirements of the technical plan. Ideally the two plans should be integrated so the relationship between the level of service and the cost can be quantified. The technical and financial relationship may change from time to time depending on the outcome of the condition assessments.

5. Risk Management: Risk should be managed in any decision making process. The owner of the assets should analyze and document acceptable risk tolerance. The probability of failure is taken into account while the condition of the asset is being analyzed. The condition assessment leads to determining the rate of failure and the consequences of such failure. Consequences can include financial, environmental, regulatory/legal, and public health and safety.

6. Performance Measurement: To optimize an asset management plan, performance of the assets and rehabilitation strategies should be monitored regularly and adjustments made at the appropriate stage in the asset's life cycle to achieve an acceptable balance between cost and performance (level of service). Benchmarks should be established and used to determine the performance of the asset.

OTHER INITIATIVES

Membership in key municipal organizations provides SDG Counties an opportunity to access best practices and performance measures for the municipal sector, as well as asset management plans as they evolve across the Province of Ontario with the intention of keeping the Counties' asset management plan current. The following associations promote cooperation between various stakeholders and, through the exchange of information, facilitate asset management practices;

- Ontario Good Roads Association (OGRA)
- Eastern Ontario Wardens' Caucus (EOWC)
- Association of Municipal Clerks and Treasurers of Ontario (AMCTO)
- Association of Municipalities of Ontario (AMO)
- Municipal Finance Officers Association (MFOA)

As a member of the Ontario Good Roads Association (OGRA), SDG Counties has taken advantage of providing road and bridge asset data to the association to help with the construction of a province wide database through OGRA's Municipal Data Works (MDW) program. Data provided to OGRA, as well as the Eastern Ontario Wardens' Caucus, is used to understand the infrastructure gap. This is then used for demonstrative purposes when lobbying the Ontario Government for increased grant funding to provide for asset renewal and rehabilitation of roads and bridges.

Another undertaking of SDG Counties is use of infrastructure asset management software. Software is being investigated with the intent that this asset management tool will assist with the overall administration of the asset management strategies described within this plan. The integrated infrastructure maintenance management system will allow the maintenance, engineering, and finance staff access to the same information on a real time basis and track activities associated with respect to asset inventories. The system will also help to monitor scheduled and unscheduled maintenance, and to record and monitor inspection results and work order schedules. The common database will also ensure that everyone is working from the same page. The data and historical information will be contained within one application, making it efficient and consistent. The end result is that capital projects can be well planned, and the long term planning associated with the asset management plan can be better managed with the intention of maximizing the life of the asset.

FINANCIAL IMPLICATIONS

The financial implications (estimated cost per year for strategy described) are as presented in the attachments to this report. It is important to recognize that, based upon the asset management plan presented, the amount of funds available may not be sufficient to sustain the current level of service. All County Departments will continue to collectively work together to accommodate the financial and technical requirements of this plan, including

taking advantage of any grant funding programs that may be available today or in the future. At this time, funding and associated resources remain the most significant challenge in reaching sustainable infrastructure services; particularly with high-cost core services such as roads and bridges.

CONCLUSION

The asset management plan as presented in this report is a systematic process that allows for the maintenance, upgrading, and the operating of our physical assets in a cost effective manner. By implementing an asset management plan, SDG Counties can maintain a high level of reliability and confidence to those that receive our services. The asset management plan is a decision making tool that will strengthen SDG Counties' ability to deliver fiscally responsible options in an environmentally sustainable framework while preserving our quality of life. **At this time, funding and associated resources remain the most significant challenge in reaching sustainable infrastructure services; particularly with high-cost core services such as roads and bridges.**

SCHEDULES ATTACHED

Appendix 'A' – Detailed Capital Asset Transactions

'B' - Asset Management Strategy

- Bridges
- Roads
- Buildings
- Vehicles & Road Equipment
- Office Equipment
- Land & Land Improvements

Comprehensive Asset Management Plan

Appendix ‘A’ - Detailed Capital Asset Transactions

Detailed Capital Asset Transactions 2015

Asset Class		Opening Asset Balance	2015 Additions	2015 Disposals	Dec 31/15 Asset Balance	Opening Accumulated Amortization	2015 Deletions	2015 Amortization Expense	Dec 31/15 Accumulated Amortization	Dec 31, 2015 Net Book Value
Bridges		$ 25,254,175	$ 1,781,294	$ -	$ 27,035,469	$ 11,936,341	$ -	$ 508,694	$ 12,445,035	$ 14,590,434
Roads	-Surface	$ 110,348,590	$ 7,891,702	$ 1,055,724	$ 117,184,568	$ 71,528,595	$ 1,023,643	$ 5,214,825	$ 75,719,777	$ 41,464,791
	-Base	$ 62,959,711	$ 2,014,168	$ 16,376	$ 64,957,503	$ 42,093,270	$ 16,376	$ 1,389,340	$ 43,466,234	$ 21,491,269
	-Guide Rail	$ 3,173,964	$ -	$ -	$ 3,173,964	$ 1,480,886	$ -	$ 116,793	$ 1,597,679	$ 1,576,285
	-Street Lighting	$ 51,647	$ -	$ -	$ 51,647	$ 33,959	$ -	$ 1,650	$ 35,609	$ 16,038
	-Storm Drain	$ 4,163,284	$ 395,718	$ 44,201	$ 4,514,801	$ 2,063,072	$ 42,523	$ 89,724	$ 2,110,273	$ 2,404,528
	-Traffic Signal	$ 625,824	$ -	$ -	$ 625,824	$ 304,440	$ -	$ 19,756	$ 324,196	$ 301,628
Buildings		$ 9,705,618	$ 96,756	$ 130,241	$ 9,672,133	$ 3,859,277	$ 66,882	$ 245,454	$ 4,037,849	$ 5,634,284
Vehicles & Road Equipment		$ 6,583,345	$ 388,276	$ 140,148	$ 6,831,473	$ 4,211,089	$ 93,760	$ 439,913	$ 4,557,242	$ 2,274,231
Office Equipment		$ 4,048,002	$ 166,421	$ 591,808	$ 3,622,615	$ 3,209,756	$ 591,808	$ 205,987	$ 2,823,935	$ 798,680
Land	- Land	$ 1,304,128	$ 3,018	$ -	$ 1,307,146	$ -	$ -	$ -	$ -	$ 1,307,146
	-Land Improvements	$ 323,659	$ -	$ -	$ 323,659	$ 245,191	$ -	$ 6,566	$ 251,757	$ 71,902
Work In Progress		$ 896,580	$ 33,478	$ 836,580	$ 93,478	$ -	$ -	$ -	$ -	$ 93,478
Total		$ 229,438,526	$ 12,770,831	$ 2,815,078	$ 239,394,279	$ 140,965,876	$ 1,834,992	$ 8,238,702	$ 147,369,586	$ 92,024,694

Comprehensive Asset Management Plan

Appendix ‘B’ - Asset Management Strategy

- Bridges
- Roads
- Buildings
- Vehicles & Road Equipment
- Office Equipment
- Land & Land Improvements

ASSET MANAGEMENT STRATEGY	
Asset:	**Bridges; As at December 31 2015**
Tangible Capital Assets Policy 1-18 definition:	Bridges and culverts are accounted for as individual infrastructure assets if greater than 3 meters in diameter. Structures smaller than 3 meters in diameter are accounted for as part of the County road system.
Inventory:	72 bridges and 120 large culverts representing 33,132 square meters of surface area; ranging in age from new to 115 years old.
Historical cost:	Acquisition cost $27,035,469 with accumulated amortization of $12,445,035; resulting in a net book value of $14,590,434 at Dec 31, 2015.
Replacement cost:	2015 Biennial Bridge Inspection reports replacement cost of $148 million.
Anticipated asset life cycle:	Estimated useful life: thick slab bridge 75 yrs; thin slab bridge 50 yrs; concrete culvert 75 yrs; steel culvert 40 yrs.
Rehab & replacement criteria:	Lifecycle cost analysis considers historical life cycle, the bridge condition index, traffic counts, safety issues, repair costs, changes to technology, etc. Key maintenance activities will maintain the life and serviceability of the structures. These maintenance activities include vegetation control, free water flow, bridge cleaning, patching, resurfacing, waterproofing, etc.
Rehab & replacement strategies:	It is anticipated that the current inventory of structures will continue and no new bridges will be constructed or added to our inventory. The current inventory will be included in the required biennial bridge inspections completed by external experts. Optimal timing of maintenance and rehabilitation efforts is key to maximizing life expectancy of existing structures. Priorities are identified within the 2015 Bridge Inspections report; annual budgeting and pursuing all funding &/or financing opportunities will achieve the recommended results. Other's best practices will be monitored with new or alternative processes &/or materials being considered through cost/benefit analysis.
Life cycle consequences:	End-of-life risks: deterioration of structures; increased safety concerns; increased repair & maintenance costs; travel disruptions; etc.
Integrated:	Rehab & replacement may be integrated with road resurfacing or road widening projects however generally not integrated with other infrastructure. Large culverts as part of a municipal drain may be coordinated with applicable township.
Charts/tables:	Detailed bridge listing & PSAB 3150 database; Biennial Bridge Inspections & WorkTech database; SDG Bridge Inventory Database.
Estimated cost per year for strategy described:	Repair items are prioritized & budgeted annually. Funding opportunities are pursued when possible for costly rehab or replacement projects. 2015 Bridge Inspection report recommends spending of $2 to $2.5 Million per year for the next 5 years for capital improvement and replacement of these structures.
Other information or reference materials:	'2015 Biennial Bridge Inspections' by Keystone Bridge Management Corp.
	Ontario Structure Inspection Manual (OSIM)
	Provincial Minimum Maintenance Standards
	County Policy #1-16 Reserves Policy
	County Policy #1-12 Purchasing Policy
	County Policy #1-15 Accountability and Transparency Policy
	County annually approved budget

ASSET MANAGEMENT STRATEGY	
Asset:	**Roads; As at December 31 2015**
Tangible Capital Assets Policy 1-18 definition:	SDG Counties road system is made up from linear assets which are infrastructure assets constructed in a continuous and connected network. This includes the road base, surface, guiderail, illumination, traffic signals, and storm drain systems.
Inventory:	968.32 km of roadway (1,940 lane KM) with varying widths of paved shoulders and all km are high class bituminous (hot mix asphalt) within the following roadside environment: 873.89 km rural, 55.55 km semi-rural, and 38.88 km urban. In 1997/98, 232 KM of Provincial highways were transferred into SDG Counties' road system; being hwys 2, 31, 34, & 43. In the accounting and road management database, the road system is divided into road segments which are individual sections where rehab activities would logically begin & end.
Historical cost:	Acquisition cost $190,508,306 with accumulated amortization of $123,253,769; resulting in a net book value of $67,254,537 at Dec 31, 2015.
Replacement cost:	The total estimated replacement value is $631,691,370; being comprised of roads surface & base $613,823,700; guiderail $3,413,165; traffic signals $1,065,818; illumination $86,757; and storm drain systems $13,301,930. This estimate is significantly less than the 2010 Road Study as some primary unit costs have decreased. For example, earth excavation decreased 45.8%, granular A 5.8%, and asphalt 8.1%.
Anticipated asset life cycle:	Estimated useful life varies widely based on the number and types/weight of vehicles using a roadway: road base 25 to 40 yrs; surface - rural 15 yrs, semi-rural 15 yrs & urban 20 yrs; guiderail 25 yrs; illumination 30 yrs; traffic signals 30 yrs; and storm drain systems 50 yrs.
Rehab & replacement criteria:	Lifecycle cost analysis considers historical life cycle, original construction/design, traffic counts & loads, drainage, repair costs, changes to technology, etc to identify optimal treatment. Priority is to "keep good roads good" in order to avoid escalating reconstruction costs. Other important activities include drainage, cold patching, crack sealing, microsurfacing, etc. Road rationalization is ongoing and has resulted in Duncan St becoming under the control of the Township of South Glengarry and Upper Canada Road under the control of SDG.
Rehab & replacement strategies:	Optimal timing of maintenance and rehabilitation efforts is key to maximizing life expectancy of the existing road system. Without additional funding, priority is given to resurfacing projects over reconstruction projects. 2010 Road Needs Study states "where funding is limited, reconstruction projects should be deferred and available funding should be directed to the roads requiring preservation or rehabilitation such as resurfacing." If sufficient additional funding should become available, Long Sault Urban Improvements, such as roundabouts, would be a priority project. Traffic counts are important in establishing road classifications for Minimum Maintenance Standards under Regulation 239/02, as well as determining the appropriate road design when the road is rehabilitated or reconstructed. Paving of shoulders increases safety, esthetics and reduces loss of gravel. Resurfacing Policy No. 2-11 details the lane width and the paved/granular shoulder widths based on road classification. Until such time as any substandard vertical and horizontal curves can be corrected through road rehabilitation, the deficiency should be addressed with improved signage &/or road markings.
Life cycle consequences:	End-of-life risks: deterioration or failure of roadways; reduced overall system adequacy; increased repair & maintenance costs; health & safety concerns; travel disruptions; reduced resurfacing results in higher reconstruction costs.
Integrated:	Activities are coordinated with local Townships as well as hydro, phone, natural gas, pipeline, cable & rail companies and others completing work under or along county roadways. County roadways are often impacted by sidewalk, water, or sewer projects. Integrated bicycle lanes may be beneficial in certain locations. Significant community events, such as the 2015 International Plowing Match, are considered for integration opportunities.
Charts/tables:	Detailed Road listing & PSAB 3150 database; 2010 Road Needs Study & WorkTech database; 2014 Road Needs Study, Vadim accounting module; GIS system
Estimated cost per year for strategy described:	Repair items are prioritized & budgeted annually. Gas Tax funding is key factor in resurfacing program and other sources of funding are pursued when possible. Cost of asphalt is very volatile therefore reserves are maintained to reduce the risk from fluctuations. Joint tendering is conducted to obtain best price. Deferral of resurfacing will result in increased project costs: reconstruction at 3 to 5 times the cost of resurfacing.
Other information or reference materials:	'2010 Road Needs Study' by AECOM
	2014 State of The Infrastructure - Roads' by 4 Roads Management Services Inc
	Provincial Minimum Maintenance Standards
	County Policy #2-11 Roads Resurfacing Policy
	County Policy #1-16 Reserves Policy
	County Policy #1-12 Purchasing Policy
	County Policy #1-15 Accountability and Transparency Policy
	County Policy #2-03 Cost Sharing in Urban Areas Policy
	County Policy #2-8 Traffic Control Signals, Flashing Beacons and Illumination
	County annually approved budget

ASSET MANAGEMENT STRATEGY	
Asset:	**Buildings; As at December 31 2015**
Tangible Capital Assets Policy 1-18 definition:	Buildings include various office buildings, garages, equipment depots, salt domes, fuel centres, etc. The capitalization threshold is $15,000 and any assets that do not meet this threshold are not recorded as capital assets but will be expensed in the period.
Inventory:	-26 Pitt St Cornwall complex; main County offices & various leases; constructed in several stages, council chambers/jail cells 1834, jailer's residence 1857, south admin offices 1885, other jail cells/kitchen 1950s, north wing offices 1958.
	-18 Fifth St Morrisburg building; 1959; leased as Dundas Registry Office - sold in 2015
	-624 Main St Alexandria building; 1999; leased to OPP & commercial offices
	-607 St Lawrence St Winchester; 1986; leased to family resource centre
	-70 Front St Finch; salt dome 2010, garage/office/storage 1978, equipment depot 1960, vehicle storage 1981, fuel centre 1992
	-3928 County Rd 34 Green Valley; salt dome 2010, office 1968, equipment depot 1968, storage 1980, fuel centre 1992
	-17368 County Rd 18 St Andrews; salt dome 2010, office 1968, equipment depot 1968, storage 1980, fuel centre 1992, storage 2015
	-12133 County Rd 5 Winchester Springs; salt dome 2010, office/equipment depot 1968, storage 1980, fuel centre 1992
Historical cost:	Acquisition cost $9,672,133 with accumulated amortization of $4,037,849; resulting in a net book value of $5,634,284. Included in these amounts are the 4 salt domes replaced in 2010; domes acquisition cost $5.8 mil representing 60% of the County's total value of buildings and net book value of $4.8 mil representing 85% of the County's total net book value of all buildings at Dec 31/15.
Replacement cost:	Replacement value of $25,011,832.
Anticipated asset life cycle:	Estimated useful life: salt domes 35 yrs; permanent buildings 40 yrs; fuel centers 10 yrs; containment/brine tanks 20 yrs; portable or temporary buildings determined on a case by case basis. With proper maintenance, buildings will continue to be used well past their accounting useful life.
Rehab & replacement criteria:	Lifecycle cost analysis considers historical life cycle, usage, repair costs, obsolescence, changes to technology, etc to identify optimal replacement. The Dundas Registry Office, former Glengarry Registry Office and the Fassifern storage properties have been sold and it is anticiapted that the Alexandria OPP building will also be sold. The Winchester resource centre is completely maintained by that organization and the County is responsible for insurance on the building only.
Rehab & replacement strategies:	Repair/replacement of major components of buildings is forecasted by the applicable Department Head and prioritized to smooth out impact on annual budget. Building, accessibility & safety standards will be adhered to and increasing energy efficiency is a key consideration. Reserves will be considered for future replacement of costly facilities.
Life cycle consequences:	End-of-life risks: deterioration of buildings; repair & maintenance costs increase; health & safety concerns; disruption of operations & increased downtime.
Integrated:	Salt domes were constructed in 2010 with sufficient space to service the township salt storage needs. Proper and timely maintenance will significantly extend the useful life of a building. Replacement of major building components will be coordinated with other components that would be impacted.
Charts/tables:	Detailed chart - "Buildings Listing"
Estimated cost per year for strategy described:	Repair items are prioritized & budgeted annually to maintain buildings in useful condition and extend life cycle. Funding will be pursued for major projects when possible. Reserves are established & will be maintained for future replacement of costly items.
Other information or reference materials:	"Facility Review 2015" completed in-house identifying replacement schedule
	"Replacement Cost Estimate 26 Pitt St" by Shore Tanner & Associates, Real Estate Appraisers
	"Accessibility Plan" & Annual Update, completed in-house
	"Energy Conservation Plan" completed 2014

ASSET MANAGEMENT STRATEGY	
Asset:	**Vehicles & Road Equipment; As at December 31 2015**
Tangible Capital Assets Policy 1-18 definition:	Vehicles include vans, trucks, tractors, mowers, chippers, graders, loaders, trailers, etc. The capitalization threshold is $5,000 and any assets that do not meet this threshold are not managed as capital assets but will be expensed in the period.
Inventory:	91 pieces being: 1- Library van, 1- emergency response trailer, 20- 6 ton trucks, 26- pickup trucks (1/2, 3/4 & 1 ton etc), 19- mowers, 2- graders, 4- loaders, 1-backhoe, 1- forklift, 1- sweeper, 8- tractors, 5- trailers, 2- cars. Some items are used for parts & not to be replaced.
Historical cost:	Acquisition cost $ 6,831,472 with accumulated amortization of $4,557,242; resulting in a net book value of $2,274,230.
Replacement cost:	Replacement value of $6,309,000, excluding cost for items that will not be replaced.
Anticipated asset life cycle:	Estimated useful life: light duty vehicles (pickup, van, cars) 4 to 11 yrs; trailers 16 to 34 yrs; heavy duty trucks 11 to 16 yrs; graders 14 yrs; tractors 20 to 22 yrs; loaders 9 to 12 yrs; mowers 3 yrs; chippers 23 yrs.
Rehab & replacement criteria:	Lifecycle cost analysis considers historical life cycle, usage in km &/or hrs, repair & downtime costs, etc to identify optimal replacement.
Rehab & replacement strategies:	Most repair & maintenance completed in-house. Usage & repair history is reviewed to warrant replacement. Investigate leasing, seasonal rental opportunities and refurbishing strategies with cost/benefit analysis. Graders & chippers not to be replaced. Frequently vehicles that reach the end of their useful life in one capacity can be reused in another lower usage capacity (i.e. Patrol Super truck used for sign crew or students, plow at end of life used as spare). Obsolete items usually sold at public auction and townships notified. In order to assist the Library costs, the Roads Dept purchases the Library delivery van and leases it to the Library at a monthly cost including repair, fuel, insurance, etc.
Life cycle consequences:	End-of-life risks: increased repair costs, increased downtime requiring more spare units or work schedules to be lengthened, service disruptions, manpower costs, loss of production, safety concerns.
Integrated:	Accounting is based on project costing practice; where equipment hours used on specific jobs/activities are charged based on pre-established hourly rates for vehicles & equipment. Long range replacement planning to avoid cost spikes. Needs of the four patrols is coordinated to maximize buying power or stabilize costs. Library van purchased & maintained as part of the roads fleet and rented to the library.
Charts/tables:	Detailed listing - "Equipment Replacement Schedule"
Estimated cost per year for strategy described:	Cost to operate & maintain the fleet is approximately $966,000 annually, which is allocated through in-house equipment rental charges to actual jobs/activities. Capital replacement cost is approximately $450,000 per year using reserves in years with replacement cost higher.
Other information or reference materials:	"Equipment Replacement Schedule" compiled in-house
	County Policy #1-16 Reserves Policy
	County Policy #1-12 Purchasing Policy
	County annually approved budget

ASSET MANAGEMENT STRATEGY	
Asset:	**Equipment; As at December 31, 2015**
Tangible Capital Assets Policy 1-18 definition:	Equipment includes software, IT accessories, printers, plotters, furniture, survey equipment, copiers, library collection, library shelving, etc. The actual value of library material purchased is maintained in a pool by year. Library shelving are pooled assets by library branch. Except for library material, the capitalization threshold is $5,000 and any assets that do not meet this threshold are not managed as capital assets but will be expensed in the period.
Inventory:	Items include: emergency generator at main office building; various copiers, printers, & plotters; 18 library branches containing furniture, shelving & collections; road survey equipment & weather systems in Alexandria & Winchester; key software including Vadim accounting, Polaris library software, Roads pavement mgmt, GIS mapping.
	- Pitt St generator cost $253,820
	- Library branches furniture & shelving cost $626,173
	- Library collection cost $2,069,688
	- Survey & weather equipment cost $134,666
	- Large office equipment cost $39,363
	- IT hardware & software $498,906
Historical cost:	Acquisition cost $3,622,616 with accumulated amortization of $2,823,935; resulting in a net book value of $798,681.
Replacement cost:	Replacement value of $3,157,210.
Anticipated asset life cycle:	Estimated useful life: library collection 7 yrs; furniture & shelving 30 yrs; generator 20 yrs; weather systems 10 yrs; software will be replaced on subscription basis not purchase.
Rehab & replacement criteria:	Lifecycle cost analysis considers historical life cycle, usage, repair & downtime costs, obsolescence, changes to technology, etc to identify optimal replacement.
Rehab & replacement strategies:	Items frequently leased so that costs are balanced over the useful life and avoiding obsolescence/disposal issues. Leasing equipment often includes maintenance. Software to be replaced on subscription basis rather than purchase.
Life cycle consequences:	End-of-life risks: increased repair & maintenance costs; library collection becomes out-of-date; safety concern with shelving; IT issues would increase downtime impacting County & Township Staff work schedules & loss of production.
Integrated:	In order to reduce oveall costs, County provides SDG Network to all local townships including use of Vadim financial software & GIS mapping.
Charts/tables:	Detailed listing - "Equipment Schedule"
Estimated cost per year for strategy described:	Based on technology improvements in the market, most computer hardware & copier costs have been reducing over the last years, resulting in lower cost for replacement and some items will not be capital in the future. Approximately $300,000 per year is in the annual budget to purchase new library materials although the trend is increasing digital subscriptions and reduced capital collections being purchased. Leasing items results in smooth annual budget, frequently at lower overall cost than purchasing.
Other information or reference materials:	County Policy #1-12 Purchasing Policy
	SD&G County Library Board Collection Development Policy

ASSET MANAGEMENT STRATEGY	
Asset:	**Land & Land Improvements; As at December 31 2015**
Tangible Capital Assets Policy 1-18 definition:	Land normally has an indefinite useful life that exceeds the useful life of the buildings, roads, or structures situated on the land. The cost of the acquired land is separated from the other costs and accounted as an asset that does not depreciate.
	Land improvements consist of parking lots, both gravel and asphalt.
Inventory:	Land inventory includes: approximately 9,500 acres of County forests, 966.42 km of roadway with varying widths of road allowance, 2 properties with offices, 4 properties with road facilities.
	Land Improvements inventory includes: 6 parking lots; 1 located at each of the road facilities in Finch, St Andrews, Winchester Springs, & Green Valley; as well as at the office buildings at Pitt St Cornwall, and Main St Alexandria.
Historical cost:	Land acquisition cost $1,307,146 with nil accumulated amortization; land improvements acquisition cost $323,659 with $251,757 accumulated amortization resulting and a net book value of $71,902. Due to the age of the land within the road right-of-way, land under County roads as at December 31, 2007 is considered to have a nominal value of $1 per road section.
Replacement cost:	Parking lots replacement cost estimated at $644,227.
Anticipated asset life cycle:	Land has an indefinite useful life and does not depreciate. Useful life of gravel parking lot is 40 yrs; asphalt parking lot is 25 yrs. Property in Morrisburg disposed in 2015 and Alexandria property listed for sale.
Rehab & replacement criteria:	Land does not require rehabilitation nor replacement; parking lots are monitored and maintained to ensure long lifecycle.
Rehab & replacement strategies:	Additional land purchases are anticipated to be only for road widening purposes. With proper maintenance parking lots will extend past their expected useful life.
Life cycle consequences:	End of Life risks: Parking lots deteriorate resulting in safety concerns, vehicle damage, lack of access to buildings, etc. Land has an indefinite useful life & does not deteriorate.
Integrated:	Land is integrated with road rehab and replacement. Road widening is involved prior to reconstruction activities and often requires purchasing proper road allowance widths.
Charts/tables:	Detailed - "Land Listing" & "Land Improvements Listing"
Estimated cost per year for strategy described:	Additional land purchases are anticipated to be only for road widening purposes at a minimal cost. Parking lots are not large therefore maintenance costs are budgeted as required.
Other information or reference materials:	"SDG County Forest Management Plan 2007-2026" South Nation Conservation Authority
	County Policy #1-14 Sale & Disposition of Surplus Land
	GIS mapping software
	MPAC data