

Collaborate: We're Better together MFOA 2018

Presentations by:

Bryan Martin CAO Township of Bonnechere Valley

Municipal Sustainability

Darla Campbell, P.Eng - Associate Dillion Consulting

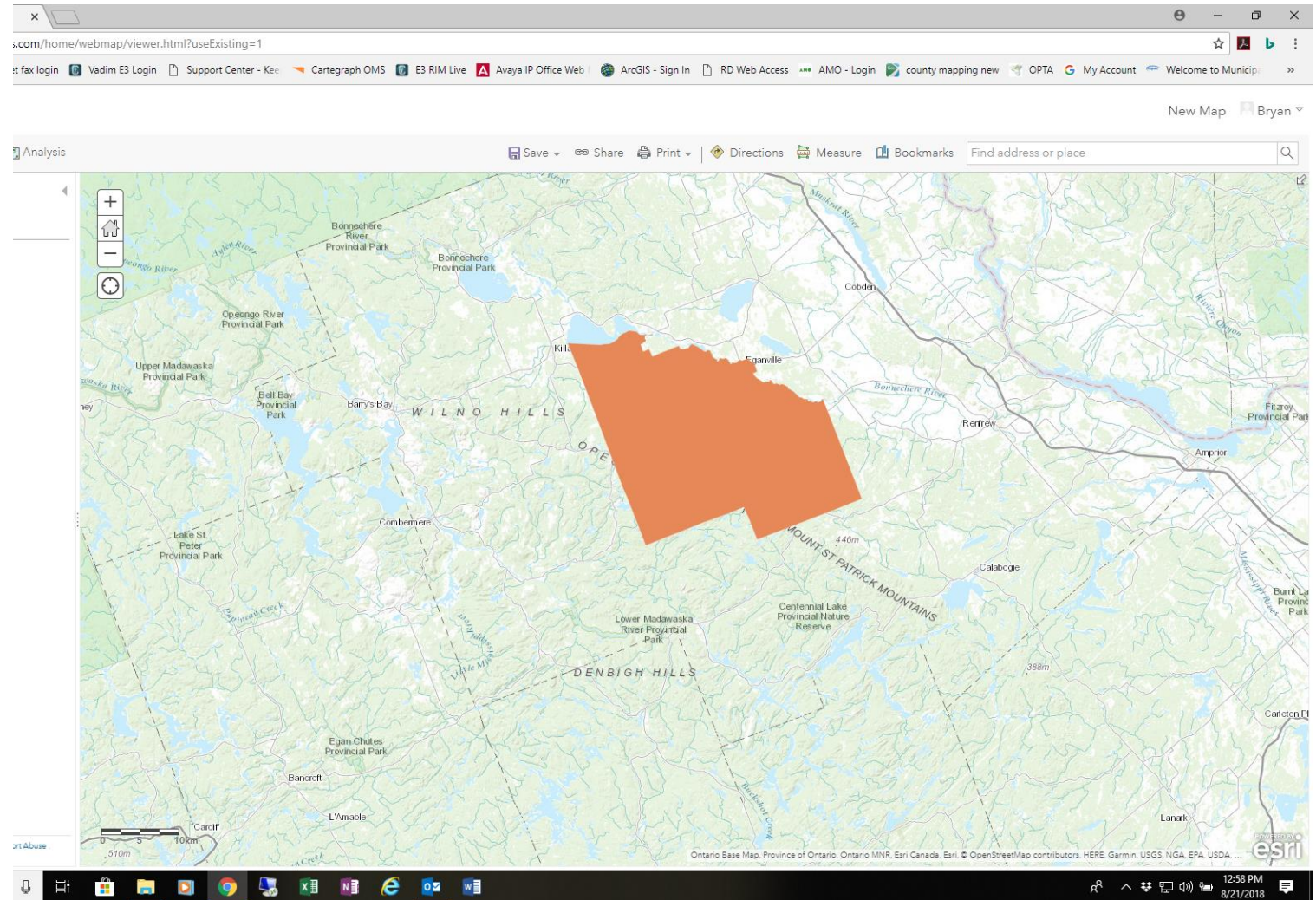
– Sustainable Procurement



Municipal Sustainability
A small Municipal Perspective
Presented by: Bryan Martin CAO
Township of Bonnechere Valley



Where are
we from



Bonnechere Valley - Who we are

50,000 hectares

565 Lane kilometers of
municipal maintained
roads

80 Lane kilometers of
seasonally maintained
road

250 KM of private roads

13KM watermain in the
Village of Eganville

11KM Wastewater
main

17 KM Storm Water
main

3250 properties

530 properties on
Water and Sewer
System

Municipal Arena

5 Waste Transfer sites
2 Landfill sites
1 Household hazardous
waste site

2 Fire Halls

4 Public Parks
3 Public Beaches





Our Mission Statement created in 2005

- “to make our community an affordable, efficient place where people choose to live, work, visit and participate in a culture that fosters communication, rural lifestyle, personal growth, and healthy commerce”

Why are we here



We will explore where we've been, where we are and where we need to go as small municipalities



We will look at how the rules have changed in asset management planning and the difficulties we face moving forward.



We will explore challenges of sustainability from a small municipal perspective.

The Benefits of being a small municipality



GENERALLY WE HAVE
SMALLER
INFRASTRUCTURE



FEWER ASSETS



ENGAGED
COMMUNITY/SMALL
TOWN PROUD



VAST KNOWLEDGE
EXISTS WITH A FEW
INDIVIDUALS MAKING
DECISION MAKING
FASTER/MORE TIMELY –
WITH LESS
BUREAUCRACY.
KNOWLEDGE SAVES TIME



SUSTAINABILITY OF
ASSETS IS INTUITIVE TO
THE EXPERTS

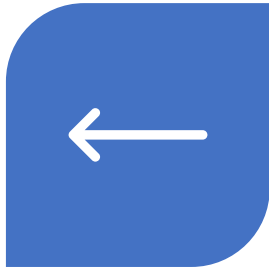


LONG TERM
EMPLOYMENT – TENDS
TO SUPPORT
SUSTAINABILITY OF
ASSETS.

Challenges of small municipality



NUMBER ONE CHALLENGE IS LACK
OF REVENUE BASE (E.G. WATER),
MINIMAL DEVELOPMENT



LIMITED ACCESS TO FAST/RELIABLE
INTERNET –MOBILE OMS AND
ASSET COLLECTION – DEAD ZONES
ETC



ALTHOUGH WE HAVE FEWER
ASSETS PER CAPITA WE PROBABLY
HAVE A HIGHER COST PER CAPITA
WHICH HINDERS SUSTAINABILITY



LIMITED ACCESS TO INHOUSE
EXPERTISE. (JACK OF ALL)

Challenges of small municipality



Staff has to multi task/wear multiple hats. Large municipalities assume that there is a department to handle that. We have a department of one in some case.



Reliance on outside consultants is costly and sometimes inconvenient

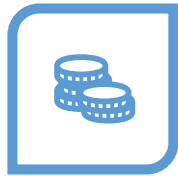


Population is not concentrated in any one area which makes service or cost of asset management per person sometimes hard to justify.

Challenges of small municipality



GEOGRAPHIC SPREAD
OF TAX BASE LEADS
TO CONFLICT WITH
RESPECT TO BEST
BANG FOR THE TAX
PAYER BUCK



SUCCESSION
PLANNING WITHIN
OUR FINANCIAL
ABILITIES TO PAY.



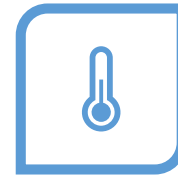
YOUNG PEOPLE ARE
NOT STAYING IN THE
COMMUNITY.
OUTSIDERS USE IT AS
A STEPPING STONE.



DEALING WITH
AGING ASSETS, THAT
RECEIVED JIT
MAINTENANCE.




NEED TO PAY FOR
YESTERDAY, NEED TO
PAY FOR TODAY AND
PUT AWAY FOR
TOMORROW.



CLIMATE CHANGE.




DISPOSABLE SOCIETY
– I WOULD RATHER
HAVE NEW RATHER
THAT FIX THE OLD OR
MORE EXPENSIVE TO
REPAIR THAN
REPLACE




Working towards self sustainability

- The emphasis for small municipalities is if at all, how and to what level are we sustainable
- You have to strive to constantly improve productivity and eliminate waste. You have to question how and what we do and whether we need to continue to do it. Embrace the change necessary to accomplish more with less



The ability to
improve means
we have to

- Rely heavily on the inhouse knowledge for asset management and life cycle processes. Don't discount the inhouse knowledge.
- Where expertise does not exist budget for outside consultants
- Harbour an environment that embraces change
- Encourage open discussions for improvement, the “No dumb idea philosophy”
- Corporate memory should be documented due to risk of loss



The ability to
improve means
we have to

- Invest time and resources in the best available asset management software your municipality can afford.
- *“But, thriving communities know the difference between simply tracking maintenance and using asset, work, and resource data to improve performance.” – source Cartegraph*

An example
where self
sustainability may
not be possible





Introduction

- Every year our council is faced with the same difficult decision. We must consider how much we will raise the water bill for the residents of our Village, Eganville. We hear loud and clear that our residents cannot afford the cost of living as it is, without raising it further.

-
- We have 551 homes on a multi-million dollar water system. We are told that the system we have is the right fit for our small community, and yet we are not adequately recovering costs and saving for future capital costs with our already costly monthly water charges. Our council has agonized over the dilemma and we figure that if we are in this predicament, other communities of similar size must be as well.



- The dilemma is much like that of Hydro. We have a system that if we charged people what it actually cost, their bills would be well over what any household could afford. We know that the province has heard the cries of hydro customers. We need to convey to you that underfunded water facilities is causing a similar hardship in small communities across Ontario



- Ontario Regulation 453/07 requires municipalities to create a financial plan projecting the full costs of operating and eventually replacing municipal drinking water systems. When these plans are examined with the intention of creating a self sustaining infrastructure we find that the costs far outstrip the ability of the users to pay.



- To put this into human terms: After years of rate increases in the range of 6% an average family currently pays \$107.00 per month for clean drinking water. To fully fund the cost of current operations and build a fund to cover future capital replacement costs we would need to charge that same user \$371.00 per month, for the same service. This is a cost beyond the reach of families in our community.





The Dilemma

- The reason for this shortfall is not due to short sightedness or neglect. It is partly due to huge engineering and construction costs in the post Walkerton environment. Costs that were never envisioned when these smaller systems were created many years ago. Added to this reality is the shrinking commercial and industrial tax base that many smaller municipalities are currently experiencing as businesses consolidate to better compete in a increasingly global marketplace. However the primary reason is that water facilities are simply not feasible with so few households to properly fund them and therefore are unsustainable.

- Expired Provincial Funding:
- Capital Assistance Programs have led small municipalities down an unsustainable path. Operational and replacement costs far outweigh the original capital costs, which were already too big for the municipality alone
- In the past municipalities utilized programs such as the Small Waterworks Assistance Program to help offset some of these capital and operating costs. However, this program has ended and there are no long-term programs on the horizon that could be incorporated into any realistic financial plan.



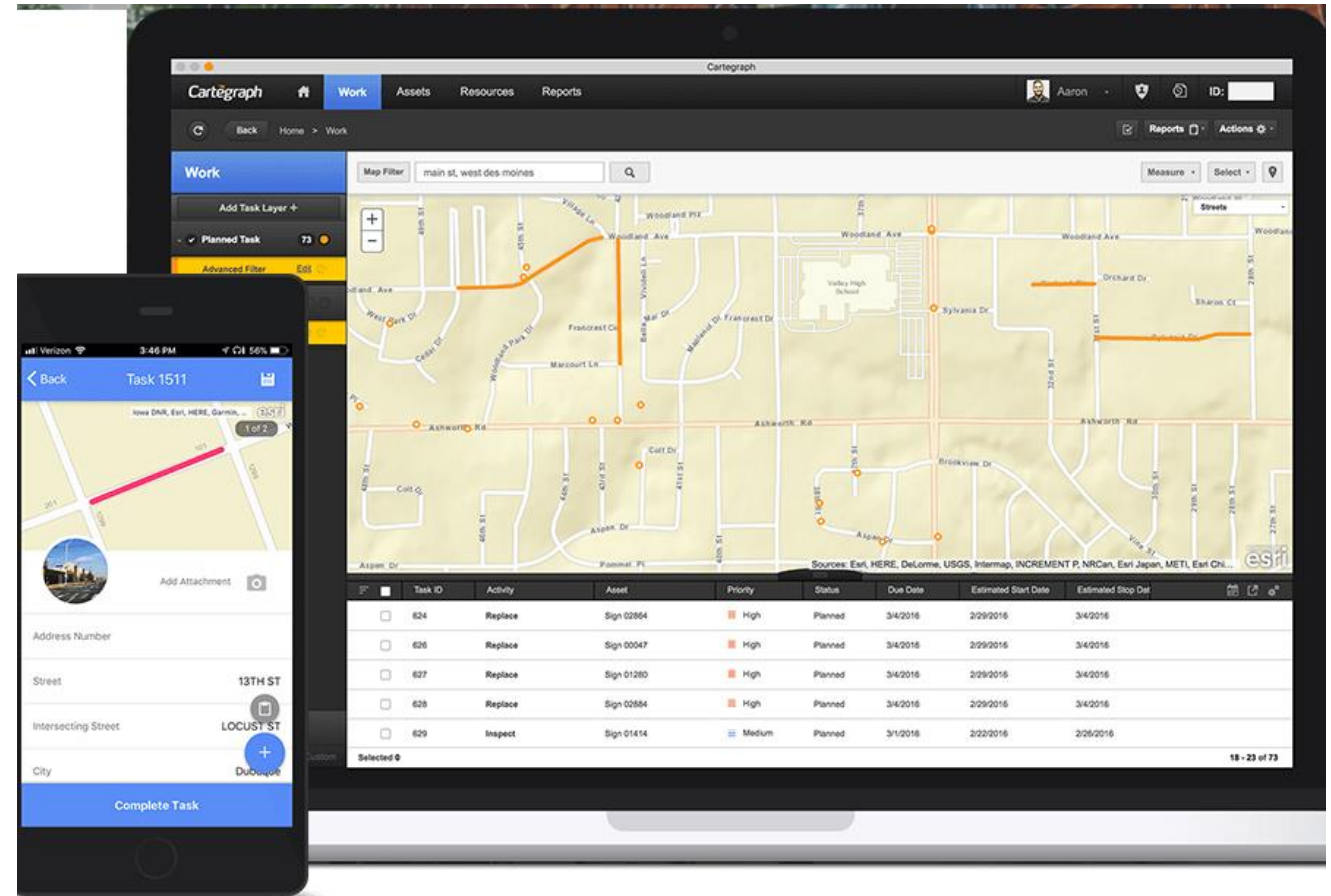
Increasing Usage

- Adding new users to our system could help but this too has proven to be a slow and unpredictable process, particularly when adding households mostly means even more costly infrastructure to connect the homes to our system – in which the household would prefer to be on a cheap well system. Geography plays a role here with our system serving a village located in a river valley making any further extension literally an uphill effort. Add to this a municipal boundary that cuts off extension in both directions to which new businesses desire to locate.



Making the best of a bad situation

- Finding Efficiency:
- Over the years we have modernized and created efficiencies to help moderate the increasing operational costs. Currently, staff and administration only account for 20% of our operational expenses and 13% when annual capital costs are added in. In comparison with other municipal systems staff and administration expenses appear quite low and we find it very unlikely that further savings could be found in this area.




- The Real Cost:
- Raising user fees to fully fund our future requirements would only serve to drive users out of our community and further weaken our financial base. To be blunt, if astronomical rural hydro rates don't leave people with empty pockets, water rates will forced people out of their homes or our community. We have not so jokingly mused that it would be cheaper to scrap the water facility and dig wells for all the homes.
- Clean water is essential, we can't make it unaffordable





A Snapshot of Our System

- Township Population: 3956
- Population Served by Municipal Water and Sewage Systems: 1255
- Number of User Connections to the Above Systems: 551 (95% Residential)
- Average Annual Cost per User: \$1260.00 / Year
- Highest Annual User Cost: \$16,800 / Year
- Total Projected Future Capital Cost Over Next 15 Years: \$19,800,000.00 (\$36,000 / User in 2012 dollars)

- 
- Median Family Income: \$57,981 (Note: This is the figure for the entire municipality and does not include those unemployed. It is suspected that the median family income for users of the water and sewage systems is lower)
 - For 2017 we are drawing \$145,000 from a total of \$730,000 in operational reserves to balance our budget and keep user rate increases to 2%
 - At this time our Municipality has over \$100,000 in arrears for water and sewer



Other Area Municipal Systems

- When we look at other municipalities in our area that operate municipal drinking water and sewage treatment systems we see a similar situation in un-funded future capital costs.
-
- 63% of all expenditures by municipalities across Rural Eastern Ontario are on water, waste water and sewer services (2012) \$135 million in operating expenditures - *Source White Paper EOWC – Financial Sustainability of Local Governments in Eastern Ontario. Kathryn Wood Natural Capital Resources 2014*



Cooperation and Solutions

- There is a wealth of information within the multitude of reports filed under Regulation 453/07. Every water system in the province files a financial plan. The Province already has information that could be useful in determining the size and density needed to make these systems sustainable.

- Part of any solution needs to be for that information to be reviewed by the province to create an understanding of the financial support needed to create a sustainable drinking water and waste treatment infrastructure across Ontario. This could be undertaken in cooperation or in conjunction with municipal associations and groups such as the Municipal Finance Officers Association (MFOA), the Ontario Waterworks Association, the Ontario Onsite Wastewater Association, Water Technology Acceleration Project (WaterTAP), Ontario Coalition for Sustainable Infrastructure (OCSI) and the Aboriginal Water and Wastewater Association.



- We view this as a cooperative effort where all levels of government have a positive role to play. We look forward to working with our neighbours as well as with both the federal and provincial levels of government to create sustainable, safe and affordable drinking and waste water systems.
- That investigation be undertaken to determine the number of users and density which are required on a system to become sustainable with traditional delivery and collection methodologies.



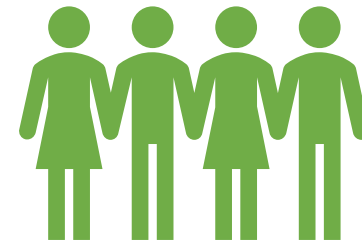
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- That the province work closely with emerging technologies to find a more cost-effective solution for municipalities to provision the required services and that consideration be given to alternative delivery solutions.
 - That the province in preparing legislation and regulation have greater consideration for the affordability of rural systems prior to implementation, which will require a broad range of options for all or possibly more autonomy to decide on solutions appropriate to our circumstances.



Areas to improve:



Establishing Asset management
policies and procedures



Defining levels of service and
reporting against these services

Communication – specifically with external users and Council



Communication needs to flow both ways. We need to provide reliable and timely information to the taxpayers



And we need to hold more public consultations so that we know what the levels of expectations are.



With respect to levels of expectations, we need to manage these better as well. Ex responding to calls, filling pot holes etc



Joint partnerships and shared services – not withstanding political challenges.



Establishing user fees where necessary and be willing to discontinue services that are not financially viable even in the face of public discord.

Sustainable Financing



- Ensuring Year after Year that funding is available to meet the needs of municipal capital rehabilitation
- Grants are not a reliable source of required annual capital funding
- The do nothing has the most negative consequence (e.g. sudden unplanned and forced closure of services)
- Whole life costing

Key Takeaway

- I have described challenges that are shared by large and small municipalities but some causes are poignantly obvious in the small ones.
- All in all, small municipalities need the ability to deliver the appropriate service in a manner fitting their unique circumstances, setting, and community expectations.





Sustainable procurement

- More on this matter in the second half presentation by:

Darla Campbell P.Eng, - Associate with Dillion Consulting



Sustainable Procurement: Delivering services into the future.



2018 MFOA Conference
Niagara Falls
September 20, 2018



Sustainable Procurement

Delivering services into future.



Presented by:
Darla Campbell, P.Eng.
Dillon Consulting
@DARLACAMPBELL
416-562-9082

- **Flashback on Sustainability**
- **Procurement Working Group**
- **Criteria for Sustainable Procurement**
- **Discussion**

1983 Ford Mustang

35 years old

How do you keep it running?



Sustainable Development:

Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

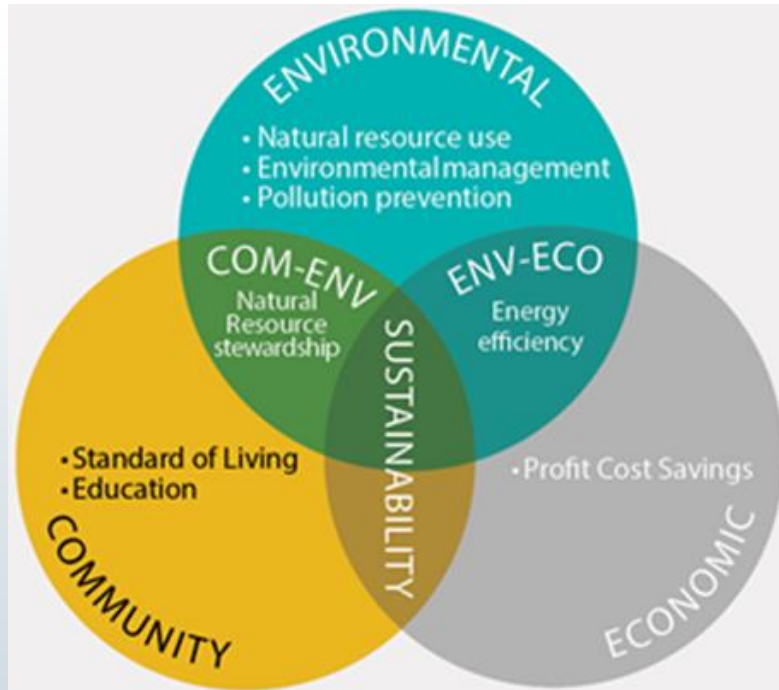
December 1983, United Nations Secretary General appoints Gro Harlem Brundtland to rally countries to work and pursue sustainable development together.

– Brundtland Commission Report, *Our Common Future* (1987)

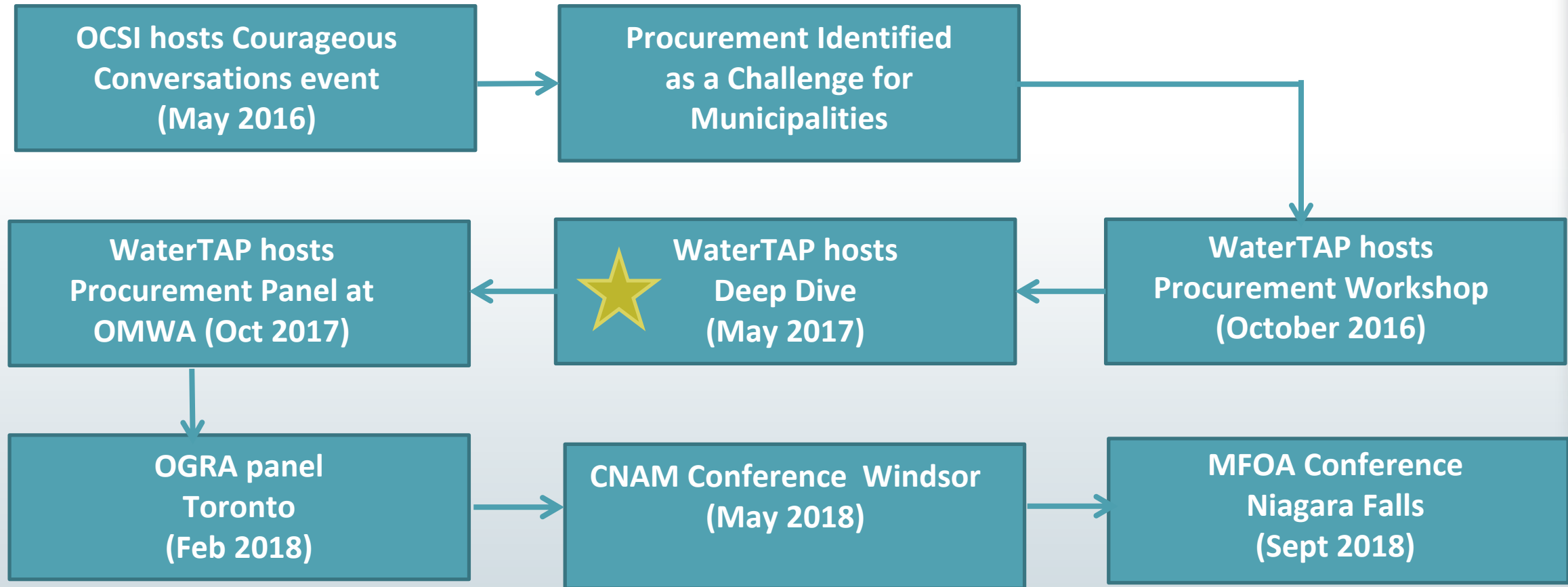


**1983 Ford
Mustang**

Sustainability: Triple Bottom Line



Procurement Working Group





Criteria for Sustainable Municipal Infrastructure Procurement

**5: Manage
Risks &
Maximize All
Criteria**

**4: Consider the
Type of
Procurement
Model**

2: Account for Life-Cycle Costs

**3: Account for
Social &
Environmental
Benefits**

**1: Identify Desired
Outcomes First**

**Criteria for
Sustainable Municipal Infrastructure Procurement**



**Weighted prioritization of
environmental, social, economic
performance outcomes**

**1: Identify Desired
Outcomes First**

Apply Life-Cycle Costing Principles

Initial Capital +
O&M +
Repair/Replacement +
Disposal



2: Account for Life-Cycle Costs



**3: Account for
Social &
Environmental
Benefits**

**1: Identify Desired
Outcomes First**

Apply triple bottom line principles



**4: Consider the
Type of
Procurement
Model**

**Depends on the
project context
(size, location, capacity)**

- **Public-private partnership**
- **Qualification-based selection (QBS)**
- **Price based selection**
- **Bundling**

Define risk tolerance, risk mitigation strategies, and monitoring

**5: Manage
Risks &
Maximize All
Criteria**

1. Identify Desired Outcomes First

Municipalities undertaking infrastructure projects should strive to improve environmental, social, and economic performance outcomes. These outcomes should be weighted according to municipal project priorities.

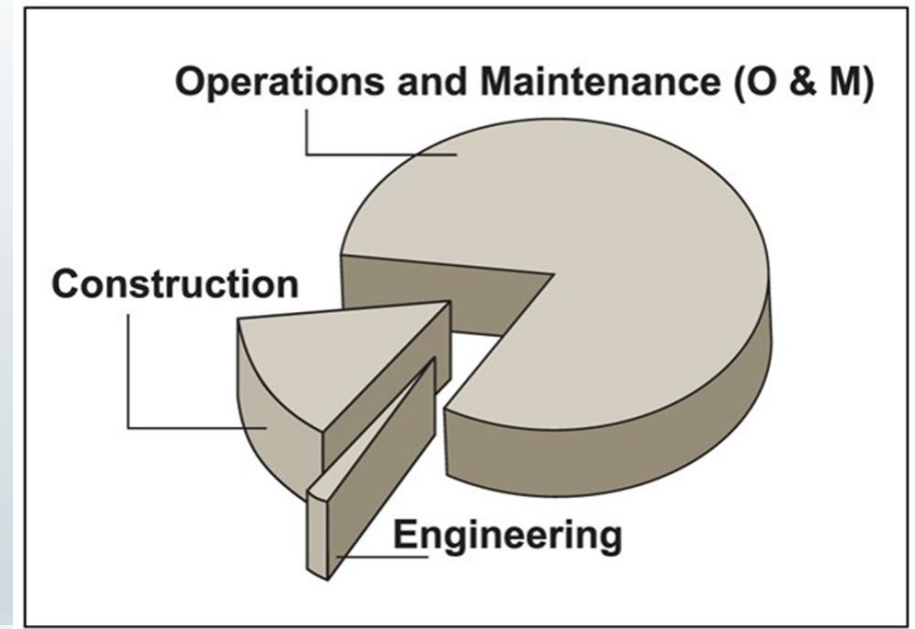


3. Account for Social and Environmental Benefits

Municipalities should consider how a procured project or service will impact quality of life and economic outcomes within the community, and consider ecosystem impacts.

2. Account for Life-Cycle Monetary Costs and Economic Benefits

Procurement of sustainable municipal infrastructure must account for elements such as timeframe, materials, capital, and life-cycle costs, adaptability of infrastructure, geographic scope, and anticipated benefits to ensure desired economic outcomes for the community.



4. Explicitly Consider the Type of Procurement Model that Should be Applied to the Project

The chosen procurement model (e.g., public-private partnership, qualification-based selection, price-based selection) should depend on the context of the project (e.g., size, complexity, capacity, location, innovation requirement).

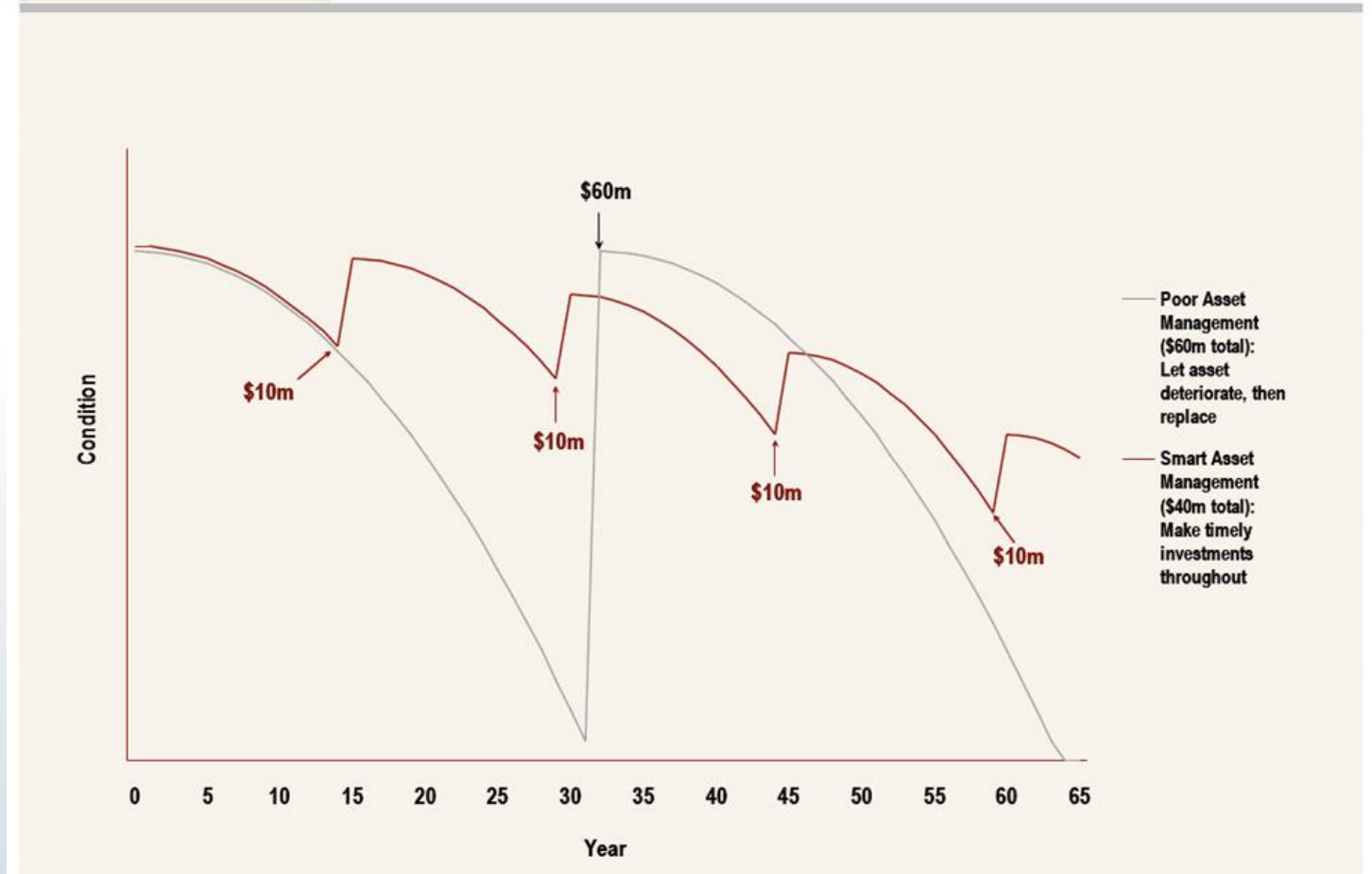
5. Ensure that the Process Manages Risk and Maximizes Other Criteria

Municipalities should define the risks associated with achieving the criteria, the tolerance or accepted level of these risks, and the risk mitigation strategy and monitoring plan.

Figure 1

Small but Timely Renewal Investments Save Money

52



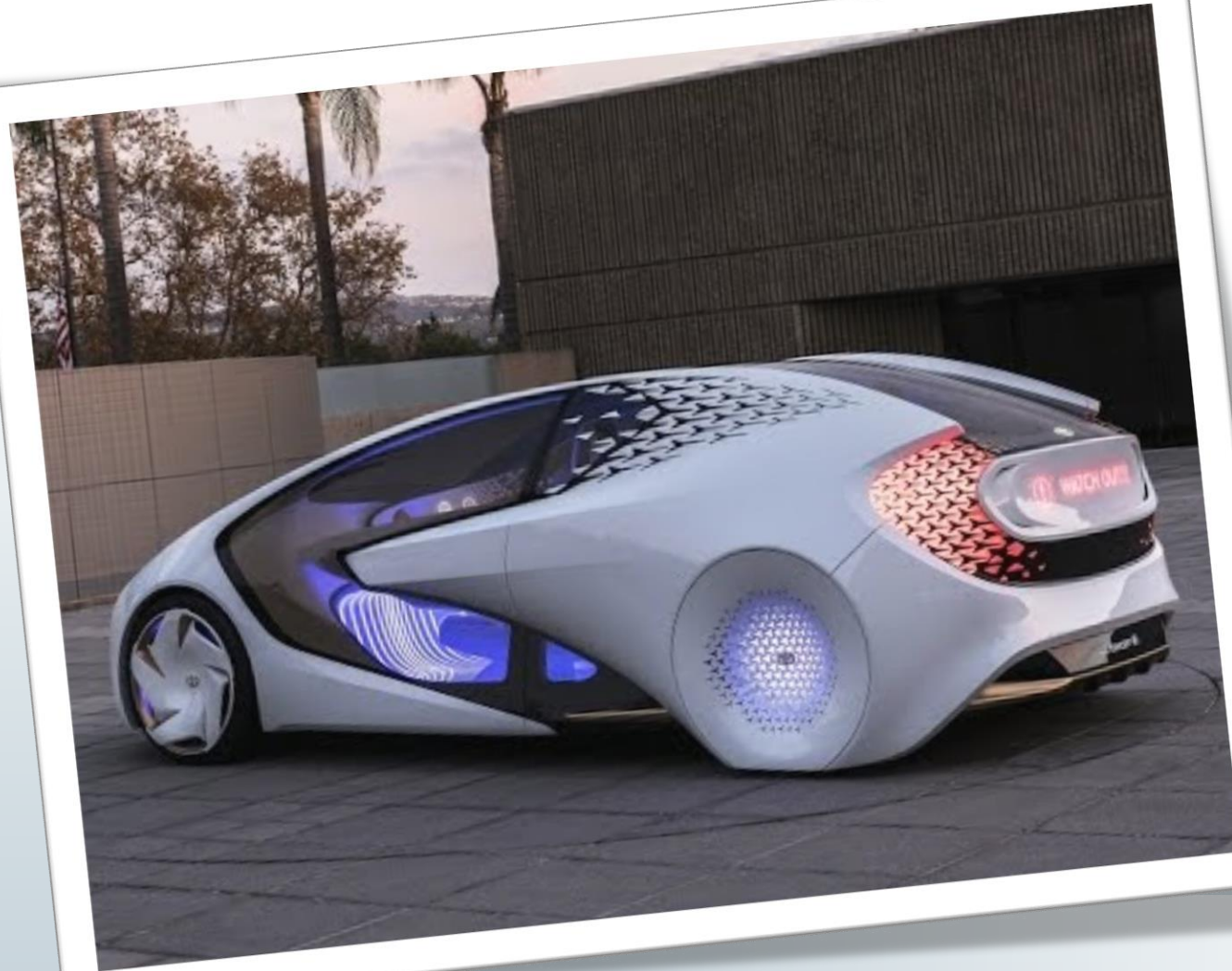
How are you maintaining services
into the future?



Toyota Concept Car

35 years into the future

How do you keep it running?





Sustainable Procurement

Delivering services into future.



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