YOUR LOCAL ASSET MANAGEMENT COMMUNITY OF PRACTICE IN BC.
Enhancing BC communities through leadership in asset management.

TWENTY EIGHTH EDITION – WINTER 2020

Creating the Sustainable Service Survival Kit: How can we Communicate Asset Management Better?

Workshop facilitators: Jan Enns, MA, Jan Enns Communications
*Christina Benty, MA, Strategic Leadership Solutions*

The ideas were flying as more than 100 delegates packed the ballroom for this year's table talk session at the 4th Annual **Asset Management BC** conference in Richmond. Led by workshop facilitators Jan Enns and Christina Benty, delegates put their heads together to discuss the challenges and solutions to communicating asset management.

Conference delegates pick their favourite ideas

"As local government and First Nation professionals, we do a great job of making sure things work," said communications trainer and consultant Jan Enns. "But where we need to boost our efforts is in making sure our staff, electeds and communities know what we're doing and why this matters.

If they don't understand why we need to invest in managing our assets for sustainable service delivery, they are less likely to support us in the short and long term."
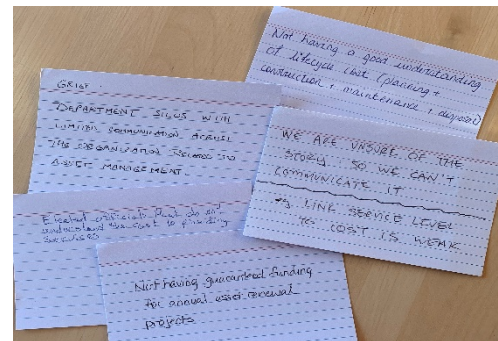
Delegates identified what gives them grief about communicating about asset management and what could help AM BC

The desire to improve how we communicate is bolstered by a 2018 UBCM resolution put forth by the progressive team at the City of Courtenay. The resolution speaks to the need for developing a common communications approach to enhance asset management practices.

> "It only makes sense to develop a common approach for communicating asset management," said resolution author and conference emcee, City of Courtenay David Allen. "We are all working to ensure we can sustainably deliver the services we provide now and for the future – it's what we do as local government. We can support our work by creating and sharing common communications tools and approaches rather than each of us starting from scratch."

The resolution tasked Asset Management BC with the work to coordinate and create these tools and approaches.

Articles in this Edition:

Feature article continued:

The table talk workshop was one of the first opportunities to gather asset management practitioners together to identify the current challenges to communicating, as well as ideas for tools and approaches that could be developed by AMBC for all to use.

> *"There are so many similarities in the challenges we face when it comes to getting support for our asset management practices," added Christina Benty. "This was a great opportunity to share ideas with others about communications tools that could be developed provincially for all to use."*

And the conversation continued at the reception. Following the table talk session, Jan and Christina summarized all the ideas on flip charts and posted them on the wall during the evening reception. Delegates were able to mix and mingle and talk about what might work – and even go a step further and mark their favourites with sticky dots.

Some of the more popular ideas included communications training and coaching for staff and electeds, common messages, stats, facts and graphics that can be used locally and bringing in outside experts as speakers to increase awareness and create a call-to-action.

Following the conference, the team at AM BC are looking at the best ways to implement these ideas. In the meantime, check out the summary report from the conference findings at www.assetmanagementbc.ca

[https://www.assetmanagementbc.ca/resources/#toggle-id-10]

For more info and resources, including key messages, presentations and more, be sure to visit our Communicating AM page on our website. And for the latest, follow us on Twitter (@AssetMBC) and LinkedIn (Asset Management BC) and help spread the word by using the hashtag #OurAssetsMatter

Case Study:

Fund First, Manage Second - City of Colwood - Sustainable Infrastructure Replacement Plan

Christopher Paine (now Director of Financial Services at Oak Bay) and Chris Osbourne, City of Colwood)

Recently the City of Colwood was recognized with the award for Excellence in Asset Management from the Union of BC Municipalities for its Sustainable Infrastructure Replacement Plan. The plan is better described as a funding strategy than an asset management plan. Our role, as financial officers, to secure long-term funding, however, is the key to empowering professionals to engage in robust Asset Management.

Asset management bridges two detail-oriented professions: Accounting and Engineering. Both professions are known for an intolerance for inaccuracy. In fact, the fear of inaccuracy often leads to indecisiveness and thus ineffective asset management progress. Organizations are hesitant to begin asset management until all assets are remeasured, revalued, assigned a GIS location, inputted into sophisticated software, and modeled by expensive consultants.

To complicate matters, Accountants and Engineers can often be ineffective communicators. They report the often irrelevant (but accurate) accumulated infrastructure funding deficit that has now been calculated by sophisticated software. The financial magnitude is enough to elicit a sense of hopelessness at the Council table and with the public.

Colwood was determined not to err in the same way. We accepted that our estimates will inevitably be imperfect, but imperfection would be better than inaction. We agreed on three broad steps:

1. **Fund first, manage second**
2. **Present a palatable solution**
3. **Eliminate unsustainable practices**

Imperfection is better than inaction:

Our forecasts indicate that adjusting variables and assumptions do not change the plan's conclusions. Colwood forecasted $427M in capital spending from 2019 – 2068. At current funding levels, Colwood would only set aside 98M (or $285M with modest annual budget increases). This would result in a cumulative funding gap of between $142M – $329M, forcing the City to eliminate some capital services and take on significant debt. Supposing spending forecasts were adjusted by $50M, the plan's conclusions would not change.

Put another way, the Sustainable Infrastructure Replacement Plan recommends setting aside $4.9M in annual funding. Annual funding in 2018 was $2.0M. Even if revised forecasts recommended annual funding of $3.5M, the plan's conclusions would not change: there was a need to increase annual capital funding.

Fund first, manage second:

Engineers, Accountants, and Councils should be able to overcome their discomfort with imperfection with a commitment to refine forecasts in the future. However, the sooner that a local government improves annual funding, the sooner the Engineers are empowered to prepare refined and strategic capital spending plans. Indecision is costly because organizations that are not funding sustainably get further behind every year. Engineers use available funding to spend reactively instead of proactively. At Colwood we have secured long-term funding first so that we can begin to address asset management sooner.

### Present a palatable solution:

Often I hear professionals describe the "infrastructure deficit" that exists in their community. This has become a cliché and fails to persuade public or policy makers. Most communities do not have an infrastructure deficit - their infrastructure is not failing and is not in need of immediate repair. Colwood's sanitary sewer system is relatively new, for instance. The oldest PVC pipe is 30 years old and has a life expectancy of an additional 50 – 90 years. Accordingly, it would be an ineffective communication strategy for the City to claim that this infrastructure is at critical risk.

Colwood does have an infrastructure funding deficit, however. Our assets will inevitably need to be replaced. The City can choose to save money gradually (and less painfully) over the life of the assets, or fund via debt and steep tax increases in the future.

The Sustainable Infrastructure Replacement Plan demonstrated the impact of the two options:

- **Option 1:** fund sustainably and generate $51M in investment returns to complement funding, or
- **Option 2:** fund with debt and pay $35M in interest.

Colwood's plan required 12 years of 1% tax increases to reach sustainable infrastructure funding levels. This amounted to a $25 tax increase to an average residential property each year for 12 years. This information was received well by the general public. A $25 annual increase sounds much less daunting than a $265M cumulative funding deficit.
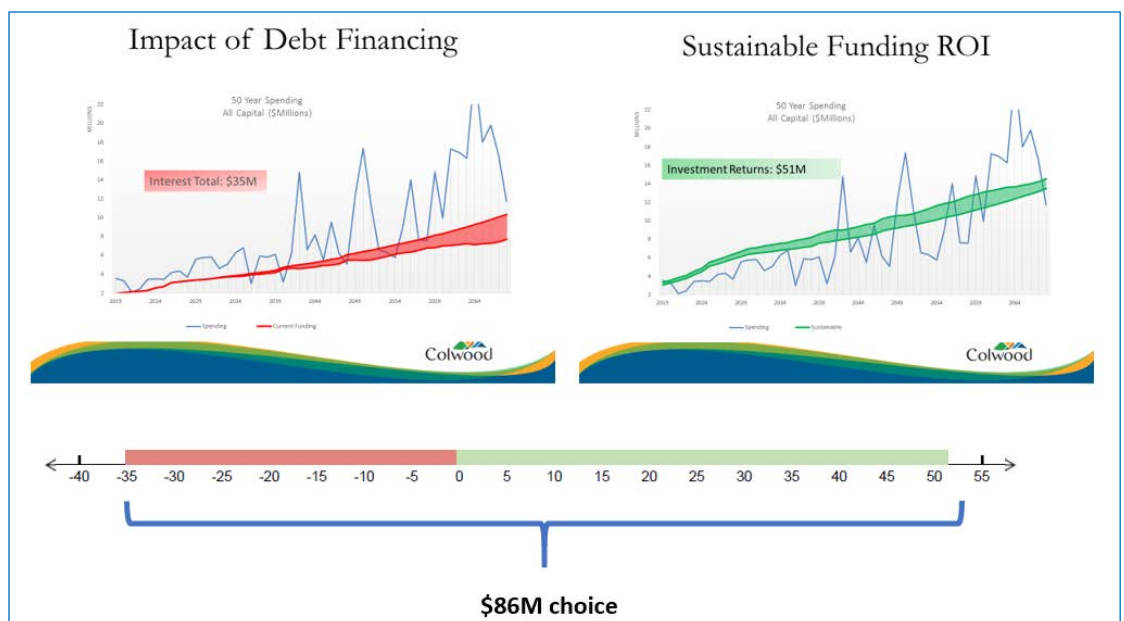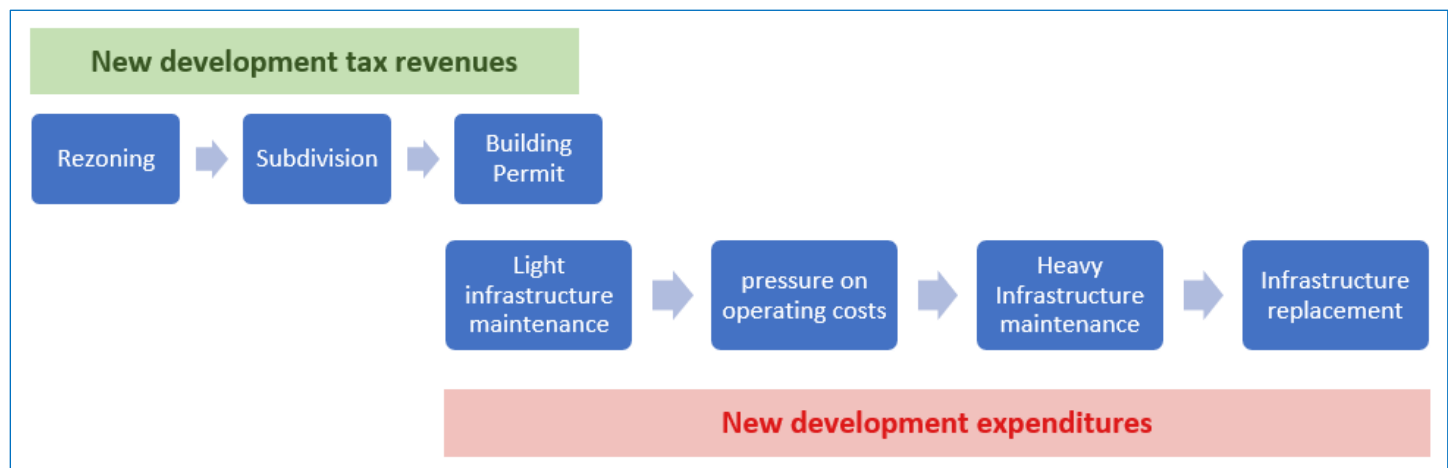

Sustainable Infrastructure Replacement Plan Options

Eliminate unsustainable practices:

There are systemic reasons why most local governments do no fund asset replacement sustainably. Most reasons relate to growth. Development results in increased tax revenues. At the rezoning and/or subdivision stage, land becomes more valuable. This immediately creates new tax revenue, referred to as 'non-market change' revenue. Finance professionals often use this new revenue to reduce the financial impact on existing taxpayers.

Inevitably new development creates new expenditures. These expenditures are normally incurred long after the initial non-market change revenue windfall. Developers build the infrastructure necessary to service the development. This infrastructure is donated to the City, creating a maintenance and replacement obligation. Initially, maintenance costs are light, but grow as infrastructure wears. Infrastructure replacement costs are not incurred for decades. Thus, there is a strong disconnect between new development tax revenues and new development infrastructure expenditures.

"…there is a strong disconnect between new development tax revenues and new development infrastructure expenditures"

significant debate. Furthermore, such analysis is land-use-decision-specific. Incremental costs are often indirect and difficult to quantify. For instance, a local government may ask how much additional police funding is required as a result of a new development. Are there economies of scale that result from new development?

These issues bring another professional discipline into the mix: urban planning. Planners, whether or not they are aware of this, are asset managers. The decisions and recommendations taken by planners will have far-reaching consequences in terms of future infrastructure financing. Traditionally, planners have thought in terms of things like connectivity, access to parks and transit, urban design, integrating commercial nodes into residential areas, and tailoring permitted uses and densities accordingly. More recently, factors such as climate change resiliency, energy efficiency, local food systems, health outcomes and social justice play into evaluating what development should go where. Infrastructure, however, is often taken somewhat for granted.

Humans are great future discounters. The infrastructure component of development is usually looked at in the here-and-now, with the assumption that the developer

Disconnect between new development revenues and new development expenditures

Responsible local government finance professionals should endeavour to connect new development tax revenues with new development expenditures as best as possible. This strategy avoids intergenerational inequity and moderates volatile tax increases. At the very least, finance professionals should endeavour to demonstrate the financial impact of continuing to allow such a disconnect to exist.

Whether new development tax revenues will offset or overcome new development expenditures is subject to

will pay to put in whatever is necessary, development cost charges will mop up any offsite upgrades needed, and the tax/user fee revenue thereafter will cover the maintenance. Job done. But not all pipes are created equal and new development plugs into a complex system. What is almost never accounted for at this stage, is the eventual replacement of the infrastructure.

To understand these issues better the City of Campbell River recently partnered with the Province of BC to analyze potential development scenarios using the Province's Community Lifecycle Infrastructure Costing (CLIC) tool.

This tool allows a user to model a development concept at almost any scale, inputting the associated development typologies and densities, types and lengths of roads, sanitary and water lines and stormwater infrastructure. One can go further and model fire coverage, school place demands, policing requirements and carbon emissions associated with likely vehicle trip generation. Using standardized costing and lifecycle assumptions for these different elements, including future taxation and user fee revenues, the tool provides outputs to estimate:

- Initial cost to install/upgrade all relevant infrastructure
- Annual ongoing operational and maintenance costs
- Annualized costs of replacing outworn infrastructure at a variety of future times

Boiling down a complex package of individual infrastructure items into a simple graph tells a compelling story. It provides an at-a-glance analysis of whether development is truly paying its way in the long term and allows for side-by-side comparison of different development concepts, or even the same development concept conceived in different locations.

We learned that development under current day conditions in Campbell River is far from cost-neutral to the public purse. Results are preliminary and a number of big assumptions had to be made in some inputs, but in most development scenarios the tool showed that annual tax/user fee yield just about covered the annual operation and maintenance cost but did nothing to cover the ultimate replacement cost. This is the all-important L-is-for-Lifecycle component of the CLIC tool.

In other words, once the infrastructure associated with development has been completed to the standards prescribed in City bylaws and handed over to the City, a **deficit immediately begins to accrue.** Once tax bills are settled and the business of the City completed for another year, **there's nothing left to put aside for replacing those assets**.

By playing with the model and cranking up densities of our hypothetical development concepts we were able to improve that financial balance, although surprisingly high densities were needed to make it cost-neutral. By moving our development scenarios into more central locations with proximity to sewage and water, and simple stormwater solutions we were able to improve the balance further.

But balancing the numbers to the extent where financial "sustainability" could be claimed proved very hard indeed.

Playing with this tool was **invaluable for planners in understanding the asset management implications** of their recommendations and policies. Good planning should always lead the way, but it cannot be conducted in isolation from the physical and financial realities imposed by geography and local circumstance. Similarly, the outputs of the tool can be of great use to finance departments, who can use it to model changes to taxes and user fees and try to match financial policy to land use policy. Each must inform the other and the biggest lesson learned from the project was the importance of having all your municipal functions represented at the asset management table and understanding each other.

Campbell River is not an isolated example. Often local governments that conduct this analysis find that new development tax revenues do not offset all direct and indirect new development expenses. The reasons for this are closely linked to infrastructure funding.

The City of Colwood is proposing twelve consecutive years of 1% tax increases to close the infrastructure funding gap. In other words, the City's tax rates are 12% lower than sustainable levels. Since rates are artificially low, new development tax revenue struggles to offset new development expenses.

The City of Colwood has adopted policy with the objective of eliminating the disconnect between new development tax revenues and new development expenditures:

1. Use new development taxation revenue to offset incremental infrastructure life-cycle costs,

2. Use excess new development taxation revenue to increase transfers to reserve until the infrastructure deficit funding gap is closed,

3. Integrate full life-cycle funding into the City's financial plan when assets are donated to the City, and

4. Convert debt servicing budgets into infrastructure replacement funding when debt is retired.

These four policies alone will significantly improve the City's future financial resilience. New development taxation revenue is set aside and reserved for related new development expenditures.

There was significant development in 2019 in Colwood. Early projections indicate that new development taxation revenue could be significant enough to pass on a 4% decrease to existing taxpayers. Given that significant new expenditures will follow in the years to come, this would not be financially sustainable. By contrast, staff will recommend that the new development taxation revenue be set aside.

For instance, one of the developments will soon be **donating a large park to the City that will require ongoing maintenance estimated to be approximately $200,000 annually**. Other incremental costs will include additional policing, fire services, road maintenance, sewer maintenance, boulevard maintenance, sidewalk maintenance, storm sewer maintenance, and long-term infrastructure replacement costs.

Ultimately, the policy decision as to when infrastructure is funded should remain with our venerable politicians. Staff can no longer ignore their obligation to demonstrate the long-term impact of funding decision and indecision.

A Case Study:
Regional District of qathet Successfully Tackles Asset Management

Team effort by: Nancy Schmeister, Manager of Technical Services, Mike Wall, Manager of Asset Management and Strategic Initiatives, Rose Temple, Office Clerk, Caleb Allen, GIS/Survey Technician, Jason Kouwenhoven, Accountant

qathet REGIONAL DISTRICT

'qathet' is a Coast Salish name meaning 'working together' and is the name that was gifted in 2018 to what was formerly the Powell River Regional District by the Elders of Tla'amin Nation. The importance of working together has been entrenched in the Regional District's approach to asset management. We have intentionally included each

Regional District department in our definition of asset management which reads,

"An integrated approach involving planning, finance, engineering, operations and emergency services to effectively manage existing and new assets to maximize benefits, reduce risk and provide satisfactory levels of service to community users in a socially, environmentally, economically and culturally sustainable manner".

qathet Regional District is located on the upper Sunshine Coast. The Regional District is composed of five electoral areas, one municipality, and one treaty nation. Our total population is approximately 20,000 with the majority residing within the City's boundary.

The 2015-2019 Strategic Plan for our Regional District identified "asset management" as a strategic priority; stating, **"We believe that proper and complete asset management improves our ability to serve the common good"**. With our Board of Directors onside, a restructuring of our then 15 inside employees was undertaken with the assistance of human resources consultant, Interactions HR Solutions. This restructuring resulted in a team of four being put together to lead the development of our asset management program. We have a department manager, an IT manager, a GIS/survey technician and an office clerk.

One of our accountants within the Financial Services department has taken a real interest in our program and is actively working with us. As is regularly the case in small local government offices, the individuals on this team all wear multiple hats. We are also responsible for capital project delivery, solid waste education, airport management, and IT and GIS services and much more. This realistically leaves a maximum of only 20 percent of our time to focus on the duties associated with the development of our asset management program.

When contemplating our vision for this program, we knew we would need to keep it simple. We also knew that the practices of the past would not be easy to alter and getting organization-wide buy-in would be critical. To get our team all speaking the same language, we went through

the NAMS Professional Certificate in Asset Management Planning course. Adoption of our Asset Management Policy early on helped to establish the legislative framework for our program. The policy created accountability across our organization (from our Board of Directors, to staff, to our volunteers) by defining the roles and responsibilities associated with the delivery of our asset management program.

Our 2019 – 2021 Asset Management Strategy was adopted on the heels of our policy. Both documents are simple and concise. The strategy sets out four specific goals to be accomplished over the next three years. Each of these goals comes with a very clear set of action items that are intended to help achieve our identified objectives for the program. These two documents have been great references when communicating about our program to our staff, Board of Directors, our constituents and potential grant providers.

Our team continues to build a "toolkit" of forms and processes to ensure that our different departments are sharing critical information related to our infrastructure and that we are able to help inform our operating and capital budgets.

An early task undertaken in our program, and one that remains ongoing, is to locate and inventory the assets we own. This is often a challenge when practices of the past resulted in some of our infrastructure not even being located on property we control with no agreements or right of ways in place. This survey work set us on the journey of sitting down with landowners that happened to have our entire wastewater treatment plant on their land

or working with senior government to establish legal right of ways for wastewater outfalls. And the list goes on.

With these challenges in mind, we knew that it was critical for our organization, that the asset management software we had in place needed to be able to integrate well with our GIS system. So much of the knowledge of our infrastructure and its location has been lost due to the turn over of staff members that had been with the Regional District, some for over 30 years.

As our inventory is being built, we are regularly identifying infrastructure for which we have previously not accounted. Countless engineered drawings and plans from years past are now being dusted off and their details being integrated into our inventory. We are now able to combine all sources of our asset data into one spatially aware sequel (SQL) database that can be checked against operator knowledge with the goal of retaining digital maintenance records of each of our assets in the near future. Our asset management software will make it easy to understand, consume and share the details of our assets across the organization, all the way down to a single water valve or a wharf piling.

As we began to build this detailed inventory, it became clear that the identification of each unique component of our infrastructure, while great for our operations staff, was beyond what was required for our financial reporting. Finding a way to use a single piece of software to address the needs of all departments, to ensure the reliability of our data and to avoid the duplication of work by multiple departments has been a real challenge for our team, and perhaps one of our greatest achievements to date.

When working with our software provider, AssetFinda, we knew that we needed the software to be able to address the unique financial requirements of regional districts. Due the larger geography of regional districts, individual services are provided to unique sets of service participants, be it to the whole region, a combination of electoral areas, or a smaller local area user group. This places the financial burden of asset purchases, maintenance, renewal and replacement on different groups of taxpayers.

Each of our services is in a different state of financial health with varying ability to raise taxes, take on new debt payments or contribute to future replacements through reserves. Regional districts cannot transfer funds between services. As such, we need the ability to budget, manage and report on each service and the assets within separately.

We concluded that working in a regional district structure means that each service needs to have a separate asset management plan if we are going to be able to help

Service	Participating Areas						
	City	SIGD	EA A	EA B	EA C	EA D	EA E
Regional Services							
General Administration	X	X	X	X	X	X	X
Regional Feasibility Study	X	X	X	X	X	X	X
Grant-in-Aid - General	X	X	X	X	X	X	X
Regional Parks Summary	X	X	X	X	X	X	X
Cemeteries	X	X	X	X	X	X	
Regional Animal Shelter	X	X	X	X	X	X	
Regional Emergency Preparedness	X	X	X	X	X	X	X
Heritage Conservation	X	X	X	X	X		
Emergency Telephone 911	X		X	X	X	X	
Waste Management (Mainland/Texada)	X	X	X	X	X	X	X
Electoral Area Services							
Shared Services							
EA Administration			X	X	X	X	X
Area B Economic Development Grant **				X			
EA Feasibility Studies			X	X	X	X	X
Planning **		X	X	X	X	X	
Development		X	X	X	X	X	
Powell River Library **		X	X	X	X	X	
House No. **			X	X	X	X	
Paratransit **		X	X	X	X	X	
Septage Disposal **			X	X	X	X	
Economic Development **			X	X	X	X	
Social Planning		X	X	X	X	X	X
Sub-Regional Recreation		X	/	X	X	X	
Individual Area Services							
Grant-in-Aid - Individual			X	X	X	X	X
Emergency Program Area D						X	
Lasqueti Waste Management							X
Community Recreation - Area C					X		
Community Recreation - Area E							X
Lasqueti Island Library (VIRL)							X
Northside Recreation			/				
Malaspina VFD *			/	X	X		
Lasqueti Island VFD (parcel and value tax)							X
Savary Island VFD			/				
Northside VFD			/				
Myrtle Pond Water (parcel tax)				/			
Lund Sewer (parcel tax)			/				
Texada Health Centre							
Texada Recreation Comm						X	
Texada Airport						X	
Texada Island Marine (Dock)						X	
Texada Heritage						X	
Savary Island Marine (Dock) parcel tax			/				
Lasqueti Marine Ramp							X
Lasqueti Health Center							X

anticipate spending, build appropriate reserves, explore funding options and inform a long-term financial plan for each service. The end goal being sustainable service delivery supported by financial stability for each regional district service.

What cannot go without mention in this case study, is the tremendous amount of support and knowledge that we have attained from other like-minded communities. qathet Regional District, along with the Town of Qualicum Beach on Vancouver Island, founded what has come to be a very informative and supportive Asset Management Working Group. The group has been active since 2016 bringing our coastal neighbouring local governments together to share progress, ideas, successes, planning tools and challenges. We have had incredible support from AM BC with Wally Wells attending most of our meetings.

We would encourage anyone starting out on their own asset management program development journey to reach out to other local governments. There is a wealth of information and endless resources that have helped us along the way. We are extremely grateful to all who have shared these resources and assisted us through this challenging but fulfilling journey.

Courtenay's Asset Management Bylaw Decision

By David W. Love, CD, BA, LGM(Dip), MM, PE, PCAMP
Senior Advisor, Strategic Initiatives, City of Courtenay, BC

In Spring 2019, Courtenay's City Council directed staff to:

…draft an Asset Management Bylaw which incorporates the existing Asset Management Policy and which would require taking into account full life-cycle costs when making decisions regarding renewal, upgrade and acquisition of Tangible Capital Assets; and,
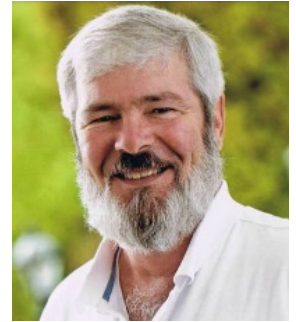
That full life-cycle costs are considered to include the planning, procurement, creation, operation, maintenance, renewal and decommissioning of Tangible Capital Assets.

The Bylaw was adopted by Council in December – just in time for "budget season".

Ten years ago, Allen Mapstone and John Howard were invited to come up from Down Under to Golden, BC and Saskatoon, SK (paid for by the respective provincial governments) to introduce what the Australian NAMS (National Asset Management Strategy) had taught them over the preceding dozen years.

During the three-day workshops (which they still offer via NAMS Canada) we were at first shocked, then amazed and ultimately convinced the invitation was a good idea.

One of their most profound lessons was the need for local elected officials to demonstrate support for Asset Management (AM) practices by adopting an AM Policy.

In the years that followed, Asset Management BC, UBCM, LGMA, GFOABC, BC Government and others on the national scene endorsed and promoted that idea. Gradually, AM Policies became a 'thing' and their adoption began to flourish.

Then we heard Duane Nicol speak at the 2018 AM BC Conference. He's CAO of Selkirk, MB and he told us of their newly adopted Asset Management Bylaw which all present agreed was a first in Canada.

Duane went on to explain that when they initially pursued the idea their R&D efforts (Rip-off and Duplicate) failed miserably, so they just had to actually research and write one of their own.

Their accomplishment caused a bit of a buzz at the conference, and the audience of mostly local government staffers seemed to quickly conclude as one, "Ah, R&D!" But sadly it was not that simple.

To us in Courtenay, this intriguing idea made us realize that our AM Policy was inadequate because it described practices and processes aligned with Operations rather than an exercise of Council's statutory authority.

So, once committed to 'uprating' our Policy to a Bylaw, the first step was to identify the distinction between the two. By doing this we verified a policy is a general statement of objectives to guide decisions on a particular matter. A policy may be readily altered by Resolution or at Council's discretion, or even disregarded in decision-making with little or no legal or political consequence.

However, a bylaw is a "regulation" enacted in execution of a power conferred under an Act (such as the *BC Community Charter*). It has the same effect on persons to whom it is directed as both a federal or provincial statute has on such persons. A bylaw is not discretionary. It must only be altered following the correct statutory procedures (including public debate, multiple readings and final adoption).

> Courtenay's Staff Report with footnotes, references, attachments and the final version of the bylaw will be posted on the Asset Management BC website at www.assetmanagementbc.ca

If Courtenay was to become one of the few local governments to adopt an AM Bylaw in Canada, and possibly the first in BC, some staff work had to be done. Therefore, it was critical to carefully draft the content so it would rest upon a solid legal foundation, stay within Council's authority, and be consistent with existing legislation and our own bylaws and policies.

The next step was to consult the applicable legislation and identify the legal means we believed would achieve our purpose. In the BC context, the research outcomes may be paraphrased as follows:

1. The purposes of a municipality include providing for stewardship of its public assets;

2. Council is responsible for asset stewardship, except as otherwise statutorily provided;

3. Every council member is responsible to contribute to meeting this purpose; and

4. The CAO is responsible for overall operations, ensuring Council's directions are implemented.

The next, most important step was to consult Lidstone & Company (Don Lidstone and Ian Moore) to ensure our thinking wasn't too badly muddled. Much chatting and writing then occurred.

Unfortunately, the concept of identifying and considering asset full life-cycle costs has no definition in existing law (i.e. *Interpretation Act R.S.B.C.* 1996). This issue was overcome by defining the term and assigning appropriate responsibility to meet it within the bylaw proper.

Additionally, this bylaw assigns the practices and processes of Asset Management on the CAO and relevant staff (operational work normally assigned by CAO Directives) and specifies the CAO is to provide the resulting AM advice to Council. For Council's part, the bylaw identifies their role is to receive and consider this advice, then express their decision-making by adoption of strategic priorities from time-to-time and their approval of the annual five-year financial plan.

Consequently, because the situation caused us to revisit the distinctions between a Policy and a Bylaw, it was possible to devise what we believe has met our critical aims set out above.

If you wish to draft an Asset Management Bylaw, we wish you luck with your own R&D.

Projects on Natural Assets gaining momentum

Roy Brooke, Executive Director,
Municipal Natural Assets Initiative

More and more local governments are discovering that it makes sense to incorporate natural assets such as wetlands, forests, ponds, watersheds, or creeks into their asset management plans.

The Municipal Natural Assets Initiative (MNAI) just wrapped up projects with six Canadian communities and found that natural assets like wetlands, forests and ponds help better manage flood risk, while providing a range of other ecosystem benefits, and at savings ranging from $0.2 to $414 million.

MNAI partnered with the District of Sparwood and City of Courtenay in British Columbia; the communities of Florenceville-Bristol, Riverside-Albert, and Riverview in New Brunswick; and the City of Oshawa in Ontario and assessed the value of infrastructure service that these natural assets are providing.

In each community, the assessment results demonstrated that if local governments conserve and properly manage the natural asset, they can continue to deliver core services such as stormwater conveyance, drinking water supply, water treatment, etc. to their residents - all at a reduced cost compared to traditional engineered or grey infrastructure assets.

The full technical reports, summary briefs, and overview report are available on MNAI's website here **MNAI**. Previously, MNAI worked with the City of Gibsons, City of Nanaimo, District of West Vancouver, and City of Grand Forks in British Columbia, as well as the Region of Peel and the Town of Oakville in Ontario, that also explored economic values of services provided by natural assets. These latest six projects all confirm and reinforce the overall findings from the first five projects, and all 11 communities have evidence of the significant value that natural assets provide them.

This table summarizes the findings for the six latest communities. For more information, visit www.mnai.ca

Location	Natural Asset Intervention	Assessed Benefits to the Community	$ Value of the Benefit
Courtenay, British Columbia	Widening and naturalizing 1,292 metres of the Courtenay River riverbank	Flood attenuation for 1-in-200-year flood event	**$2.4 million** In flood damage reduction to properties downstream
District of Sparwood, British Columbia	Protecting a 150 m² natural pond	Maintaining current water quality benefits the pond provides	**$200,070** Based on cost of an engineered alternative, capable of treating 80% of pollutants (note: pond treats 90-95% of pollutants or total suspended solids)
Florenceville-Bristol, New Brunswick	Protecting 182 hectares of forested area along the St. John River	Flood and stormwater attenuation benefit for 1-in-100 year storm	**$3.5 million** Based on cost of replacing forested area with stormwater management ponds (note: the value increases to $4.1 million if climate change is factored in)
Riverside-Albert, New Brunswick	Protecting ~203 ha of Arabian Vault watershed	Maintaining current drinking water supply the watershed provides	**$0.8 - $1.2 million** Based on cost to construct a groundwater source system (i.e. wells)
Riverview, New Brunswick	Protecting four wetlands, covering 13,791m² area in Mill Creek Watershed	Flood attenuation for 1-in-100 year flood event	**$1.4 million** Based on cost of replacing wetlands with stormwater management ponds or constructed wetlands. (note: the value increases to 2.3 million if climate change is factored in)
City of Oshawa, Ontario	Protecting 7 km of natural area in the Oshawa Creek Watershed	Maintaining the current stormwater conveyance benefit that the area provides	**$18.9 million** Based on cost of constructing an open channel with similar flow rates to Oshawa Creek
	Protecting entire 50 km of the Oshawa Creek Watershed	Maintaining the current stormwater conveyance benefit that the watershed provides	**$393 - $414 million** Based on capital cost of full channel realignment project, including land purchase,

Recreation Facility Asset Management (RFAM) Free for Communities in BC

Dwayne Kalynchuk, Executive Director, Recreational Facilities Association of BC (RFABC)

The Recreation Facilities Association of British Columbia (RFABC) is pleased to announce that it has secured the rights the RFAM solution.

RFABC joins, The Alberta Association of Recreation Facility Personnel (AARFP) and the Recreation Facility Association of Nova Scotia (RFANS) as licensed provincial partners who have adopted **Recreational Facilities Asset Management software (RFAM)** and are following the Ontario Recreation Facilities Association (ORFA) lead to provide the solution **at no cost** as a benefit of membership.

RFAM facilitates the collection and organization of recreation inventory data for municipalities. A benefit of the RFAM solution is that it strengthens the lines of communication within a recreation department by having one central location where all staff members can update and contribute to the upkeep and maintenance of capital assets.

The inventory module, a free benefit of membership in RFABC, helps staff maintain an up to date roster of various recreation assets including arenas, pools, community centres, parks, trails, playgrounds, etc. This approach is the first step in the development of aggregate data which will assist in establishing a provincial standard.

RFAM includes at no obligation for a monthly fee additional module such as; Inspections, Work orders, Warehouse, Smart4Cast, and Efficiency.

Many municipalities and organizations agree that RFAM is the most effective way to store information for their asset inventory, complete routine inspections and close work orders which results in safer buildings within the community. Individuals involved in parks and recreation agree that RFAM is an enhanced digital solution tailored specifically for the recreation industry in contrast to paper, spreadsheets, or other products.

Dwayne Kalynchuk, RFABC Executive Director says,

*"We recently came onboard with ORFA and Marmak to make the **Recreation Facility Asset Management software** program available to all of our 700 plus members.*

Our members now have a tool to assist them in their facility asset management roles. The initial interest in the program has been great and as more of our members become aware of the potential of this product, we anticipate many more facilities and municipalities will be utilizing it. The beauty of the software is that it was developed with input from recreation facility operators who know what their needs are to operate and maintain multiple assets. It is a tool every facility operator needs in their toolbox."

The simple and easy to use functionality has made RFAM, the software of choice for over 50 municipalities across Canada and we are garnering interest from additional recreation associations, municipalities, consulting companies and private firms.

A BC Strategy for Community Investment in the Natural Commons: Why Terminology and Bias Matter

Kim A Stephens, P.Eng., Executive Director, and Tim Pringle, EAP Chair, of the Partnership for Water Sustainability in BC

A BIG IDEA: The sustainability of core service delivery is a concern for local governments across Canada. Rather than continuing to attempt to do more with less, local governments have an opportunity to do things differently - and achieve better results - by including natural assets in asset management processes[1].

How Communities Decide How Much to Invest in Creekshed Restoration

It should be relatively easy to embrace the 'big idea' introduced above. Many local governments do seem willing to take a leap of faith and venture into uncharted territory to expand the scope of asset management to encompass ecological assets.

Putting this big idea into practice, however, requires an understanding and a re-think of terminology that is

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[1] Extracted from the introduction to *Integrating Natural Assets into Asset Management, A Sustainable Service Delivery Primer*, 2019, a companion document to **Asset Management for Sustainable Service Delivery: A BC Framework**

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currently in use for valuation of *ecological systems and services*. It also requires that asset management professionals understand what such terms mean and are aware of the bias that may be implicit in traditional terminology.

In other words, clear and effective communication of basic concepts is a foundation piece for ultimately changing the way local governments do business.

Bias comes into play in one or more of the following three ways. First, whether one breaks the ecological system into its parts, or looks at the system as a whole. Secondly, whether the analytical focus is solely on financial values, or also takes into account social values. Finally, whether the guiding philosophy for valuation primarily is influenced by academia and scientific arguments, or by how the community uses the natural commons (stream corridor). These biases seem to persist.

EAP, the Ecological Accounting Process, is a pragmatic 'made in BC' approach to valuation of the ecological services supplied by a stream (one of our most common ecological systems). Think of it as a decision support tool for use by local government. EAP looks at the system as a whole, takes into account social values, is guided by how the community uses the natural commons, and looks at the influence of the natural commons on neighbouring property values.

Application of the EAP methodology and metrics can help to inform an investment strategy for protection or restoration of ecological-hydrological function in the natural commons. EAP is particularly relevant to urban and suburban creeksheds drained by a 1st order stream.

The EAP Journey:

EAP is a three-stage initiative: **Test / Refine / Mainstream**. During 2017 and 2018, two Stage 1 demonstration applications tested the concept, and demonstrated EAP relevance to local government. In 2019, two Stage 2 demonstration applications resulted in working definitions and consistent application of the EAP methodology. Next, six Stage 3 demonstration applications will mainstream use of EAP. The ten demonstration applications encompass a range of land use situations in five regional districts.

Dating back to 2015, the authors have done much soul-searching as we have collaborated with willing provincial and local government partners to advance the EAP initiative. Our partners have helped us to consider terminology and derive meanings that they can use.

In this article, we describe where we have landed in crystallizing a way of thinking about *ecological systems and services* in an asset management context.

Along the way, and as our understanding has grown, the terminology that describes the EAP methodology and metrics has evolved. First of all, some concepts and terms are missing from the ecological systems and services lexicon. Secondly, we all benefit by using a common language to communicate among local government departments and within our communities. Thus, an outcome of EAP evolution is the identification of an eco-terminology framework that is appropriate and relevant to municipal asset management.

Consider the concepts and definitions that have evolved through the EAP experience.

Maintenance and Management (M&M) of Ecological Assets

The starting point for application of EAP is recognition that local governments have existing tools in the form of policies and legislation for 'maintenance and management' (M&M) of ecological assets within riparian corridors.

Until now, however, what local governments have lacked are a pragmatic methodology for financial valuation, and meaningful metrics that go to the heart of sustainable service delivery. EAP provides metrics that enable communities to appreciate the worth of ecological assets. Six foundational and cascading concepts underpinning the EAP methodology are introduced below. They provide a mind-map:

- **Maintenance versus Management** – Maintenance is about preventing or avoiding degradation, whereas management is about improving the condition of the ecological asset. This is an important distinction. The M&M acronym is a starting point for encouraging practitioners to think holistically about the relationship between hydrology and ecology.
- **Whole-System Approach** – It is insufficient to look at nature primarily as a substitute for engineered infrastructure. We are looking at a system. Without an ecological system, there are no ecological services. Therefore, it is imperative to understand the system as a whole. Everything is connected.
- **Natural Commons and Constructed Commons** – It is not yet well-understood that these are parallel concepts and of equal importance.

Every urban creekshed comprises a constructed commons (roads, utilities, etc.) and a natural commons (streams, riparian corridors, etc.) Each commons is a system. The two are illustrated in the image below. The commons concept is the lynch-pin for EAP.

- **Package of Ecological Services** – This concept refers to the combined range of uses desired by the community. Three key words capture the essence of what we mean by 'range of uses' – drainage, recreation and habitat. These three words immediately conjure a word picture in our minds. They are visual. They make real what is an abstract concept to most people. Thus, a strategic plan that supports this diversity within the natural commons will appear worthwhile to the greatest number of interested parties.
- **A Stream is a Land Use** – This is a novel yet intuitively obvious way of characterizing a stream and its riparian corridor because streams in settled areas meet this litmus test for a 'land use', and that is: *they have a defined area in legislation; and measurement of their financial value can be calculated using BC Assessment data*.
- **Dollar Value of the Natural Commons** – The extent of use and investment in M&M indicates what neighbouring residents and the community as a whole think ecological assets are worth – which is defined as 'value in use'. Looking through the 'worth' lens, and utilizing financial information supplied by BC Assessment as a proxy, the EAP methodology assigns a dollar value to the land occupied by the natural commons (stream corridor).

Implications for Asset Management Strategies and Plans

The idea of a natural commons supporting a package of ecological services which the community wants and expects to have implies that approved plans for land development should not result in ecological services being merely residual outcomes. Should the community simply be happy with what is left?

Rather, their maintenance and management (M&M) should be planned as core municipal services. It is the ecological services supplied by streams (as defined in the Riparian Areas Regulations Act) that influence the financial value of land parcels.

Residents and property owners are familiar with constructed commons services - roads, potable water, storm sewers and many other ongoing services.

They expect these services to endure. Similarly, communities expect the ecological services provided by the natural commons to be enduring.


The commons support well-being and quality of life

Constructed Commons

Natural Commons

Asset Management BC / UBCM receive Cohort funding from FCM Municipal Asset Management Program

With funding from the FCM Municipal Asset Management program and participation from the Province and UBCM, **Asset Management BC** is developing additional training tools and education programs for community asset management. Throughout March, UBCM is holding workshops around the Province on gas tax funding and asset management.

Three new programs are being developed for delivery at local workshops over the next 18 months.

The first is a workshop on **Level of Service**.
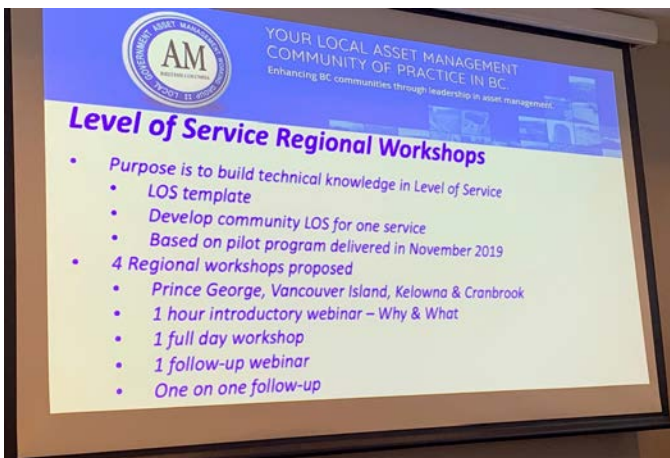
A pilot workshop was run in November 2019 with good success and great feedback from those that attended. In case you missed the description, here is the information presented by UBCM on the Level of Service Workshop.

Considerable work has been done on 'communicating the message' and 'awareness building.' An open house session was held at the UBCM conference in September with great feedback from our politicians on what is important.

The second program will be sessions that focus on **awareness building**, the role of Council and the role of asset management in the integrated decision-making process.
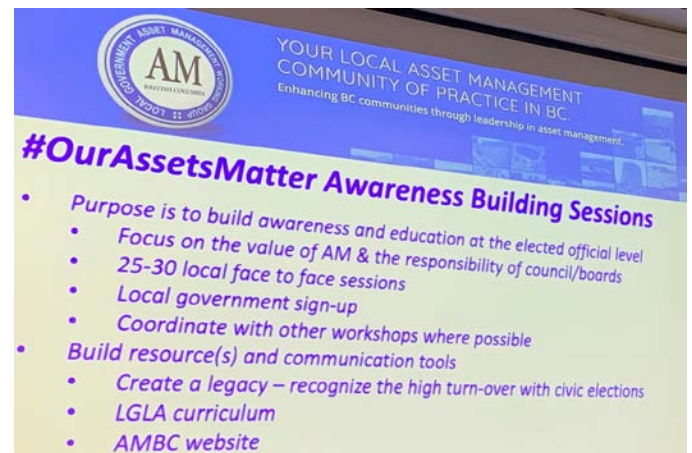

#OurAssetsMatter is the core message for these sessions and the take-away we hope people will have. In most cases our service delivery is dependent on the infrastructure and assets to do so.

The third program is called '**operationalizing asset management**'. What does this mean? How do you put the pieces together to have a cohesive understandable process to achieve the desired outcome?

We have been asking you what your barriers are to achieving the best results with asset management? It is one thing to prepare an Asset Management Plan, but then what?

How do we use and communicate the results to move through to implementation?
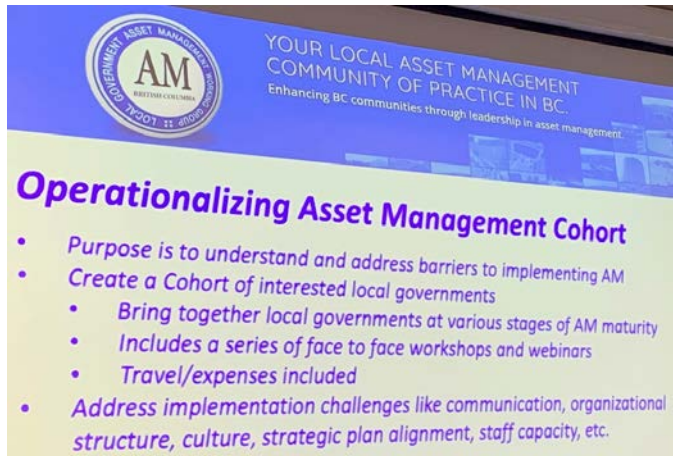
If you have an interest in attending any of these workshops or want more information, please advise us at Asset Management BC. Send you request to Wally Wells, Executive Director at **wwells@live.ca**

Building organizational capacity for excellence in Asset Management through education program

PEMAC Asset Management Association of Canada, in partnership with Northern Lakes College is delivering a special offering of the Asset Management Professional (AMP) education program to municipal practitioners and elected officials across Canada starting this April.

The AMP program, that is comprised of six courses, introduces participants to the latest in strategic asset management thinking while building organizational capacity for excellence in Asset Management. Participants develop the capacity to engage others and build their knowledge and skills in key subject areas while familiarizing themselves with tools for strategic decision-making at each stage of the asset lifecycle.

The program is designed for mid-career municipal sector professionals and senior managers from varied disciplines including engineering, IT, business management and finance, who have responsibility for managing decisions with respect to the core life cycle functions such as design, selection, operation, and maintenance of a municipality's assets.

Cross-functional municipal teams are invited to participate in this special offering of the program at a significantly discounted tuition. This initiative is offered through the Municipal Asset Management Program, which is delivered by the Federation of Canadian Municipalities and funded by the Government of Canada.

Course one of the program, Asset Management Principles and Strategic Development, will take place in Kelowna, British Columbia on April 27 to May 1, 2020 for five full days of learning. The following courses 2 through 6 will be offered online by asynchronous learning starting in May 2020 until December 2021. Completion of the program leads to the widely recognized "Certified Asset Management Professional" designation.

For more information and to download an application package, visit www.pemac.org/amp_municipal or contact fcm_amp@pemac.org. Spaces are limited so be sure to apply early.

MARK YOUR CALENDAR

5th Annual Asset Management Conference
Sponsored by Asset Management BC

Conference Dates: November 4 & 5, 2020
Conference Location: Westin Wall Centre Hotel
(Vancouver Airport – Richmond BC)

Tips and Tactics: Create Listeners Before Speaking!

Bernadette O'Connor, Principal Consultant, Asset Management, WSP

I have long thought that engagement is more important than completeness of the message.

What I mean is that the receiver must be listening, before any message will be heard. The importance of the message, it's accuracy, it's completeness, it's relevance – none of these matter, unless the message is heard by someone. Preferably, by the intended audience.

So how do you create listeners? Here are some tips:

Firstly, its not about YOUR message - you have to provide value to your listeners world, not yours. People will not listen if they are not interested in the topic, or the message is framed in a way they don't relate to, or it's not useful to them. And, if people aren't listening, continuing to talk probably won't help. Stop talking and ask questions to find out what's important to them. The end goal is to give your audience something they want or value and say what you need to say in a way they will hear.

Strategic pauses – avoid being so focused on your message that you fill every moment with words. Pause after each main point that you want your listener to 'take-away'. It gives them a moment to digest what you have just said, a moment for the thought to resonate with them and for them to store that thought. It also gives you a moment to read the room, are they engaged or distracted, are people nodding or frowning. It gives you the opportunity to adjust your approach if you need to.

Self awareness – know your own weaknesses and work on them. Being aware helps you to catch yourself and adjust during a presentation or meeting to get a better outcome.

Get to the point – busy people appreciate brevity. Think about your key messages and don't have too many. Most people only remember about 25% of what they hear and its a different 25% for different people. So, think quality not quantity. Giving them lots of information will be less successful than sticking to a few key points.

Break it down – your point has to be understandable to your audience. According to Einstein "If you can't explain it simply, you don't understand it well enough". Replace technical jargon and explain acronyms. If you think people aren't "getting it" (when you pause after making a point), try to break it down some more. But be careful not to explain a complex point with more complexity.

Show respect and appreciation – your attitude towards your audience can dramatically affect their willingness to listen. People will listen to someone they like, respect, or for self interest (i.e. they believe the message is important or useful to them). People are also more inclined to want to hear from someone who seems interested in them.

Without a willing listener, did you say anything at all?

COVID-19

To reduce the spread of COVID-19, several events have been cancelled or postponed. The situation is changing rapidly, many staff are already working from home where businesses, municipalities, and government agencies are set up to allow this. Other businesses and organizations are temporarily closed and waiting to see how efforts to contain and manage the spread of the virus develop, and when it might be safe to re-open.

Where we know the status of any of the Upcoming Events, at the time of publication, we have noted it.

Upcoming Events

Municipal Insurance Association of BC
April 7 – 9, 2020
Annual Conference
JW Marriott Parq Hotel
Vancouver, B.C.
www.miabc.org

~~Cancelled~~

BC Water and Waste Association
April 26 – 28, 2020
48th Annual Conference and Trade Show
Penticton Trade & Convention Centre
Penticton, BC
www.bcwwa.org

Postponed

BC Recreation and Parks Association
April 29 – May 1, 2020
Annual Symposium
Victoria Convention Centre
Victoria, BC
www.bcrpa.bc.ca

Cancelled

Canadian Network of Asset Managers
May 11 – 14, 2020
14th Annual Networking Conference and Workshops
ST. John's, Newfoundland
www.cnam.ca

Cancelled

Recreational Facilities Association of BC
May 11 – 14, 2020
Annual conference
Tigh-Na-Mara Resort
Parksville, BC
www.rfabc.com

Government Finance Officer Association of BC
June 3 - 4, 2020
Annual Conference and Trade Show
Coast Kamloops Hotel and Conference Centre
Kamloops, BC
www.gfoabc.ca

Federation of Canadian Municipalities
June 4 -7, 2020
Annual Conference and Trade Show
Toronto, ON
www.fcm.ca

Local Government Management Association
June 9 – 11, 2020
Annual Conference and Trade Show
Delta Grand Hotel and Conference Centre
Kelowna, BC
www.lgma.ca

Postponed

Canadian Water Summit
11th Annual Water Summit
June 2020
Ottawa, ON
www.watersummit.ca

Union of British Columbia Municipalities (UBCM)
September 21 - 25, 2020
Annual Conference and Trade Show
Victoria, BC
www.ubcm.ca

Federation of Canadian Municipalities
October 20 - 22, 2020
Sustainable Communities Conference
St. John's Newfoundland
www.fcm.ca

Asset Management BC
November 4 - 5, 2020
5th Annual Asset Management Conference
Westin Wall Centre Hotel
Vancouver (Richmond), BC
www.assetmanagementbc.ca

Editor: Bernadette O'Connor

WSP
Victoria, British Columbia
Ph. 250 896 4136
Email: berndette.oconnor@wsp.com

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