



HALIFAX WATER CEO SAYS CHANGING ORGANIZATIONAL CULTURE IS THE BEST WAY TO MAKE PROGRESS ON ASSET MANAGEMENT

Cathie O’Toole knows something about asset management. As the general manager and CEO of Halifax Water, she oversees the management of \$1.4 billion worth of infrastructure assets and annual revenues of \$155 million for the first regulated water, wastewater and stormwater utility in Canada. The utility serves 105,000 customers. Before that she was managing finance and infrastructure for years at the Halifax Regional Municipality.

With many asset management insights and lessons to share, O’Toole was a perfect choice to be the opening keynote speaker for the 2021 Atlantic Asset Management Conference, held in Dartmouth from November 29 – December 1 (see the article on page 5 for highlights).

O’Toole spoke to delegates about what she sees as the biggest challenge public service delivery organizations face in moving asset management forward – the culture piece. For asset management to be effective, organizations need to move from a siloed approach to managing infrastructure, where people make decisions through their own myopic view of what the infrastructure needs and requirements are, to a coordinated and collaborative approach that is more strategic and ensures decisions are made with a broader understanding. To achieve that, she is leading Halifax Water through a change management process built around four themes: purpose, process, proof points and people.

The purpose theme is relatively straightforward. O’Toole emphasized that to build an asset management culture, it is important to convey a clear concept of asset management throughout the organization so that people have a sense of what they’re working towards and why. From her perspective, this is the least challenging theme for local governments because staff have a good sense of what they’re doing and why they’re striving for excellence in service delivery.

The process theme is more complicated. In her experience, asset management planning often gets bogged down because people aren’t thinking about process and continuity from the design stage of infrastructure, through to procurement, construction, operations, maintenance and then disposal. Instead, they tend to look at their

own little piece of the process and they don’t think about the full lifecycle. She has seen this happen all the time and gave the example of what happens when an engineering department focuses on procuring the lowest cost option without consulting the operations group to determine the implications for operations and maintenance of the assets.

She recalls when Halifax Water purchased some trucks that seemed like a good idea at the time to the fleet department, but the employees despised them. They were uncomfortable to drive to the extent that some employees in the operations department began complaining about back and soft tissue problems and morale dropped because the operations team felt they weren’t consulted about the purchase. Operational considerations such as health and safety, employee reception and morale were aspects that should have been considered during the procurement process. O’Toole also talked about one time at Halifax Regional Municipality about 15 years ago when the Region purchased fire trucks that couldn’t fit into the fire hall when they arrived.



(Continued from Page 1) These are the kinds of mistakes that are more common than we might hope and can be avoided with proper consultation and collaboration in an organization, or in other words, good process. All aspects of the service need to be considered to ensure that infrastructure assets of all types work together. When new buildings are commissioned, they need to support all the equipment needs and meet all the operational requirements. When new equipment is purchased, it needs to match the specifications of existing facilities. O'Toole says good process needs to be mandated and checks and balances need to be put in place to ensure that different groups consult with each other. That also helps to break down barriers between them.

O'Toole feels there's not enough formal investment in change management. Too often in municipal government, you might get a memo about a change or new process, but it doesn't necessarily build the buy-in needed to be successful. She believes in dedicating resources to communications and is a big champion of bringing people together in more face-to-face meetings. One thing she's done during the pandemic is support ways to help people get out of their comfort zones, create videos, and collaborate face-to-face (even virtually if necessary).

The theme of having proof points is ultimately about having good data and information as a basis for decision making. In O'Toole's experience, one of the most difficult tasks is getting agreement on data standards and finding the one source of truth and systems to use to capture different types of data. The type of asset information a finance professional needs might look different than what an engineer or public works professional requires. Again, she believes a big part of the solution is collaboration and that means requiring people to work on the same initiatives towards a common purpose. This helps to bring agreement and compromise.

The fourth theme is people and in O'Toole's eyes it is the most important one and the most difficult. It really is the foundation that the other three themes are built on as well, because the goal is to move from an organizational structure where everyone is working in siloes to a more collaborative structure in which there are many checks and balances to ensure that multi-functional teams work together. Halifax Water has done this by setting up asset management teams around different service themes related to water assets, wastewater assets, and stormwater assets. The teams bring people together from different departments to talk about the service theme. They used to have different operations groups working on water services and wastewater and stormwater services. Now they have employees from water services and wastewater services working side by side and beginning to share equipment and resources. There's a lot more coordination.

Another way Halifax Water is breaking siloes is by doing their business plan differently. Before this year, goals would be set by each department in its own silo. Performance was assessed based on whether the department achieved its goals. They are moving to an approach where every department works towards the same corporate strategic goals, which are organized around four themes: 1) people, 2) environment, health and safety, 3) financial and regulatory accountability, and 4) operational excellence. The goals can only be achieved collaboratively and performance is measured based on people's contribution to achieving them. Halifax Water has a corporate balanced scorecard with about 30 key performance indicators that they've been using for over 20 years and they're revamping them and their levels of service measures to align with the four pillars.

One of the positive outcomes of their new approach to business planning and their new organizational structure is that they are beginning to see some good discussions about sharing resources and capacity. If as an organization they know there's something critical they need to do, like a climate action plan, one group might put their hand up and agree to take the lead when another has no ability to dedicate resources. That kind of congeniality wouldn't necessarily have happened in the past.

One big message that O'Toole hopes people took home with them from her keynote is that people often don't understand why a change is important or what risks are being managed. It's so important to be effective at communicating the reasons for changes in process and leaders can benefit from putting themselves in someone else's shoes in the organization. One way to do that is to test communications with non-technical people before they are rolled out. She also knows it is ideal if a change can be explained to people from the perspective of what is in it for them. But with asset management, the reality is that some changes will require more work. In those cases, she believes that honesty is the best policy and being clear about the rationale for a change is a good way to build support and make progress.

By: Donna Chiarelli

Cathie O'Toole
General Manager and
CEO of Halifax Water



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LOOKING BACK *and* LOOKING AHEAD

By: Matt Delorme

As we come to the waning days of 2021 and the end of FCM's MAMP Partner Program 3 funding, we at AIM Network have been waxing nostalgic about how fortunate we have been to have worked with such great people in Atlantic Canada over the last 2 years. Despite the challenges brought on by the first major world pandemic in 100 years, AIM Network and its partner municipalities adapted to overcome.

We are grateful to FCM and Infrastructure Canada for the Municipal Asset Management Program (MAMP), which has supported AIM Network as an Implementing Partner of the Program and helped so many municipalities in Atlantic Canada with long-term planning. Through MAMP we delivered cohort training programs to a group of seven municipalities from across mainland Nova Scotia, a group of four from the Avalon Peninsula in Newfoundland, another group of five from across the Province of Newfoundland, and a brand-new program for two communities, a regional municipality and a village, centered around New Brunswick's upcoming Phase 2 asset management requirements. Serving communities ranging in population from under 200 people to over 25,000, our enthusiastic cohorts put asset management to work in their organizations, from building policies and roadmaps to capital planning and institutionalizing asset management practice. We also started our first "second round" cohort program, assisting municipalities that had gone through our previous programming to build on their work and make asset management a core operational function. Our continued work with asset management leaders at the provincial level ensured our training, tools, and resources were aligned to meet the specific goals of each province.

Outside of the MAMP program, we had the good fortune to work with over 30 Atlantic Canada municipalities on furthering their asset management practices through FCM's direct funding programs, assisting them and their consultants to expand their expertise and knowledge base in asset management. AIM Network can assist with custom program development to meet specific infrastructure planning needs and navigate funding and reporting requirements in support of building capacity in municipal organizations.

AIM Network also began offering continuing education workshops in partnership with the Atlantic Canada Water and Wastewater Association (ACWWA) with a focus on how asset management can assist and be assisted by good operation and maintenance practices for water and wastewater systems.

We continued our educational programs with presentations to municipal councils on the advantages of asset management and continued to work on technical committees through FCM and Infrastructure Canada to advance asset management in Atlantic Canada and to learn and share with our fellow practitioners across the country.

Last Spring we released Version 7.0 of the AIM Network Capital Planning tool with a new user interface, 100-year risk-based projections and project assignment / capital budgeting. As with all our AIM tools and resources, it remains free for any municipality, so send us an email if you would like a copy.

And to top it all off, we just wrapped up our annual conference and were very excited to have it in-person again in Dartmouth, despite a one-month Covid delay – ever flexible! See the article by Martha Meyers on page 5 for highlights.

As interesting and engaging as the last year has been, we look forward to some exciting programming in 2022:

- 1.** We will continue to assist municipalities directly with custom built asset management assistance programs that address anything needed for strategic planning, policy, organizational change, levels of service assessment, climate adaptation / mitigation assessment, risk assessment, data collection and capital planning. See page 6 for an overview of the type of support we provide;
- 2.** We have submitted a proposal for new and innovative programming under the upcoming MAMP 4 partner program and if successful, we will launch it in early Spring. The program is centred on our observation that there has been great progress in Atlantic Canada with many municipalities (even the small ones!) leading the way in asset management practice. To keep this momentum, the program will focus on 1) fine tuning technical capacity, 2) supporting organizational change so that decision making is impossible without using asset management principles, 3) bringing climate change adaptation / mitigation goals into scheduled projects, and 4) taking training on-line to make it available "whenever and wherever" it is needed;
- 3.** We will pilot an assistance program to help municipalities access funding for facility upgrades that will support climate mitigation goals; and
- 4.** AIM Network intends to facilitate a series of Climate Summits, which will be meetings between local government leaders to develop a formal process of community engagement, strategic planning, project partnering agreements and planned projects to address climate change adaptation and mitigation. See the article Climate Summits – A Regional Approach to the Climate Crisis on page 4 for details.

If you have accessed AIM programming in the past, we will be following up with you to let you know about all the new upgrades and innovations in our suite of tools and resources that are provided **free** to municipalities. As always, AIM is here to respond to the needs of municipalities across Atlantic Canada. We understand that asset management planning is not an overnight process so we adjust to what YOU need in your organization. Feel free to reach out to us at info@aimnetwork.ca and let us know how we can help.



Climate Summits

A REGIONAL APPROACH TO THE CLIMATE CRISIS

Climate change is on most people's minds these days. Flooding and fires on the West coast, drought in the Prairies, coastal erosion and storm surge on the East coast; these are just some of the immediate threats to municipal services in Canada today. However, when you combine these threats with the need to renew a large amount of aging infrastructure in Atlantic Canada, it becomes an opportunity to build climate resilient infrastructure networks that can adapt to service delivery needs for the next 100 years.

Easier said than done? Of course. We still struggle with limited resources – not enough people, not enough budget, not enough certainty on what exactly the effects of climate change will be. But as the adage goes, “Many hands make a light load”. And that is why AIM Network aims to facilitate a series of Regional Climate Summits across Atlantic Canada in the next two years.

AIM Network's Board Chair, Robert Hughes put it well when he said, “I want the first call a municipality makes when it has a question to be to another municipality.” This speaks to two important facts. First, there is a wealth of collected knowledge within municipal councils and staff that isn't always readily available to their peers. Second, someone that has encountered the same problem and developed an effective solution is uniquely suited to assisting someone else to develop their own solution.

The task in front of us to both adapt to climate change (build better to limit its impacts on services) and to mitigate it (build infrastructure that reduces greenhouse gas emissions) is a huge challenge and there is nothing more appropriate for a broad knowledge and experience sharing model. It is especially critical that municipalities choose the right solutions as we enter the next decades of infrastructure planning because “the way we have always done it” is no longer going to work.

Beyond sharing knowledge and experience about climate change, municipalities will also benefit from collaborating on the solutions. Adaptation sometimes requires large scale projects that can span multiple jurisdictions, like managing water supply from rivers and aquifers, retaining natural features in watersheds that cross municipal boundaries or adopting new design standards that are appropriate for many municipalities in a region. Fortunately, the rural character of most of Atlantic Canada lends itself well to joint efforts at adaptation planning and partnering on projects can yield considerable savings. Two examples are cost sharing for crack sealing asphalt to reduce road degradation from increased freeze and thaw cycles in the winter or splitting mobilization costs for heavy civil projects in remote areas.

There is also greater power in a regional approach to addressing something like tidal surge driven riverine flooding that can affect many communities along the river. Rather than each community developing solutions and constructing infrastructure to address the same issue, it only makes sense to get together and develop a partnership to address the project, possibly at a single location.

Mitigation is even trickier. With more than 50% of greenhouse gas emissions under direct or indirect control of municipalities, it will be impossible for Canada to reach its climate targets without strong municipal support. However, it is a complex area to navigate. How much of your power is generated from “green sources” already? When are you using power? Is it when loads are low and there is little fossil fuel production? Or is it at peak hours when every kilowatt hour reduction is less fossil fuel burned? What is the carbon footprint of your infrastructure over its full lifecycle? Will a lower carbon footprint solution require replacement earlier or later? What is the carbon footprint of your building supplies? Can your building act to sequester carbon? If this partial list makes you feel exhausted, you are not alone!

The Climate Summits AIM Network intends to facilitate will begin in 2022. These are meetings between local government leaders to develop a formal process of community engagement, strategic planning, project partnering agreements and planned projects to address climate change adaptation and mitigation. The summits will be hosted by an anchor municipality – a city, larger town, or county/regional district that is near smaller, like-minded communities with similar climate change concerns.

Through a series of facilitated planning sessions, a public consultation event and documentation workshop, the outcome of the summits will be a formal agreement / process for sharing information and resources, a joint climate change committee with representatives from all participants, and a suite of target projects to begin planning and engaging funding agencies.

If you are interested in joining us in this journey, please contact us at info@aimnetwork.ca and let us know your interests. Are you interested in being an anchor municipality or partnering with others in your area? What planning or resources to address climate change do you have in place? What would you like to achieve as an outcome from these summits? We look forward to hearing from you and working with you in 2022.



By: Matt Delorme

ATLANTIC ASSET MANAGEMENT CONFERENCE SHINES A LIGHT ON PROGRESS BEING MADE IN THE REGION

By: Martha Myers

We did it! AIM Network shepherded through another successful Atlantic Asset Management Conference this year and we were thrilled that it could be delivered in person. After postponing the original date of October due to COVID events in New Brunswick, the conference brought close to 100 participants together from all four Atlantic Provinces. It felt so good to be able to network with so many professionals working hard to advance the common goal of strengthening asset management in the region. The conference took place from November 29 – December 1 at the DoubleTree by Hilton hotel, in Dartmouth Nova Scotia.

The mix of delegates provided good peer learning opportunities and helped participants gain different perspectives on asset management depending on someone's roles and responsibilities. While most delegates were municipal staff including CAOs, more than 10 % were elected officials, including mayors and the rest came from government or non-government organizations or were consultants supporting municipalities with asset management initiatives.

Day 1 of the conference allowed 25 delegates to participate in a workshop facilitated by Matt Delorme of AIM Network and Jeff Matthews of GHD. The workshop focused on building capacity of participants to create a hypothetical capital plan for their "municipality" using data provided by Delorme and Matthews. The evening "Meet and Greet" in the exhibitor area provided a first opportunity for informal networking. Days 2 & 3 offered a full program of presentations, workshops and networking events.

Robert Hughes, AIM Network Chair, kicked off the conference and gave the floor to Cathie O'Toole, GM of Halifax Water. Cathie gave a keynote address that struck a chord with many attendees on the challenges faced in creating an asset management culture (see the feature article on page 1). FCM and Infrastructure Canada then delivered a live, virtual presentation on different funding programs available to municipalities.

Following several sessions that showed how progress is being made on asset management in the region, including through the use of new technologies, Day 1 closed with a cruise around the Halifax waterfront. About 30 delegates learned about measures Develop Nova Scotia has been taking to adapt to climate change through its "foundation"

projects. Eva Parada, Director of Infrastructure with Develop Nova Scotia led the tour. One example of a measure they are taking is when replacing wharfs along the waterfront, they've raised the elevation to allow for storm surge and sea level rise, with the design adapted to dampen the forces caused by wave action.

Delegates were impressed with how the City is balancing the need to adapt to climate change as a coastal community with the desire to ensure the waterfront is a vibrant place that attracts residents, businesses and tourists. With the recent opening of "Rise Again Square", located behind Queen's Marque, we were in awe of the artwork, open spaces and beautiful lightshow from the Evergreen Festival. Other than being a bit chilly, the tour was very well received! Our group dinner at the Wooden Monkey filled the private room with chatter and laughter. It was a great day!

A highlight of Day 3 was a two-hour climate change presentation and activity led by Hiba Kariem from ICLEI Canada and Sabine Dietz from the newly formed CLIMAtlantic organization. My key take-away was that climate change is real and we need to act sooner rather than later. Several municipalities and organizations across our region and the country are undertaking projects to adapt to and mitigate the effects of climate change and others can learn from and collaborate with them rather than tackle this challenge in isolation. AIM Network is excited about the formation of CLIMAtlantic and looks forward to working with them to help municipalities understand the impacts of climate change on their communities and use that knowledge to inform long-term planning for services and infrastructure.

During the session we also learned about the recent publication of "Canada in a Changing Climate: National Issues Report" with a soon to be released "Atlantic Provinces" chapter. The session was made possible with funding from the Federation of Canadian Municipalities.

As the conference Chair, I would like to thank the conference committee members who volunteered their time to make this conference a success, and their employers, who supported them in doing it. Thanks also to the sponsors and exhibitors whose support made the conference possible. And finally, thank you to our presenters! Feedback has been very positive on the conference content, which you can access on the AIM Network Website: <https://www.aimnetwork.ca/>.

I am already looking forward to meeting again next year. Stay tuned for information about the 2022 conference, which will be held in PEI.



FCM Funding Opportunities:

AIM NETWORK CAN HELP YOU!

Our sole mandate is to support municipalities in Atlantic Canada with asset management planning, and now more than ever that planning must integrate climate change actions that both reduce greenhouse gas emissions and adapt to the impacts of climate change.

The Federation of Canadian Municipalities has grants available to municipalities in Atlantic Canada to strengthen asset management and climate action planning and AIM Network can help you access them.

FCM Municipal Asset Management Program Grants

Grants for a broad range of asset management planning activities of up to \$50,000 or 90% of project costs for communities with population of <1000 and 80% for communities with populations >1000.

AIM Network will:

- Assist with the design of an asset management program customized to your community's needs that culminates in a 5-year capital program based on level of service, risk and cost;
- Assist with preparing the application and supporting documentation; and
- Support with program execution from kick-off through to drafting the final report for submission to FCM at the end of the project.

* **Note:** Applications from municipalities applying to MAMP for a second time are accepted. Gas tax may be used for the municipal contribution to the project.

At the end of the process, you will have:

1. A sound grounding in principles of asset management planning.
2. Tools, graphs, and data to educate elected officials and residents on the challenges and solutions with service delivery in your municipality.
3. GIS Maps of linear assets showing infrastructure location, probability of failure, consequence of failure and risk.
4. A spreadsheet catalogue of facilities containing all major building components.
5. An Asset Management Policy ready for Council ratification.
6. A level of service report showing current and future gaps in community service levels along with a scheduled plan to address those gaps.
7. A prioritized list of infrastructure renewal and replacement projects based on policy, service levels, interaction of assets with one another, climate vulnerability and risk.
8. A 5-year capital program based on 20-year annualized infrastructure demands with specific projects, rationale for selecting these projects, assessment of potential funding opportunities and a pro-forma budget basis for the Program.
9. A collated Asset Management Program with all Project deliverables and mapping.

FCM Green Municipal Fund Climate Mitigation Funding

Myth: Climate change mitigation and energy efficiency will cost more money.

Reality: Many simple energy efficiency activities save you money in operations costs. Spending on efficiency measures now buffers you from energy cost uncertainty and can free up some dollars for those much-needed capital contributions for your asset management plan.

Now efficiency is even ***more*** cost-effective thanks to grants offered through FCM's Green Municipal Fund. The grants cover:

- Feasibility studies to assess the cost / benefit of building retrofits. A maximum of \$65,000 to cover up to 80% of the assessment cost for a single building or a maximum of \$200,000 to cover 80% of the cost for a suite of buildings to see what projects have the highest return to the environment and to your budget.
- Following the feasibility study, capital funding is available to construct building retrofits of up to 25% as a grant and 55% as a low-interest loan for a total contribution of 80%. The retrofits must achieve at least a 30% greenhouse gas (GHG) emissions reduction. A second funding stream following the feasibility report is to fund a phased GHG reduction pathway that can provide 50% GHG reduction in 10 years and 80% GHG reduction over 20 years. Applications for the capital funding are recommended to be preceded by a feasibility study to confirm performance of the upgrades.

If you are interested in conducting a feasibility study, AIM Network will:

- Work with you to pre-screen potential projects and design the scope of work for the feasibility study;
- Assist in preparing the application and supporting documentation;
- Connect you with an energy assessment contractor from our network of professionals or work with a contractor of your choice to conduct the assessments;
- Manage the project in compliance with the funding requirements and assist in integrating the proposed activities in your asset management program;
- Help to consider the impact of life cycle costs or savings on your current asset management program – how will the project impact (positively or negatively) your other infrastructure. Note that using the AIM Network suite of asset management tools is not a requirement; and
- Support program execution from kick-off through to drafting the final report for submission to FCM at the end of the project.

If interested, contact us at:

info@aimnetwork.ca or Daisy Foster (902) 412-3328 Matt Delorme, P. Eng. (902) 691-4883.

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