



AIM NETWORK SET TO LAUNCH ITS **SECOND** COHORT PROGRAM

Based on its highly successful cohort program delivered in 2018-2019, AIM Network is set to launch its second cohort program to strengthen asset management practices in the Atlantic region. This is largely thanks to the support of the Federation of Canadian Municipalities, which for the third time has selected AIM Network as one of several partner organizations receiving grant funding to build organizational capacity in asset management in municipalities across Canada. AIM Network received its first FCM grant back in 2017 to build awareness of and support for asset management in the region, and the sustained support since then has helped the Network to grow and drive progress from awareness to action. The FCM grants have been made available through its Municipal Asset Management Program, which it delivers with funding from the Government of Canada.

AIM Network's first cohort program helped to build asset management foundations and technical capacity in 33 municipalities in the region and was very well received by participating municipalities. This second round of programming aims to draw on that

success as well as strengthen the program. "We learned a lot in implementing the first cohort program," said Daisy Foster, Managing Director of AIM Network, "and we've fine-tuned the program to provide the best support possible to participating municipalities."

The new program will support one cohort in each province in the region. The cohorts from Nova Scotia, PEI and Newfoundland and Labrador will be following a common program, while the New Brunswick cohort's program will be adapted slightly to align with new provincial asset management legislative requirements that will soon come into effect (see article *New Brunswick Updates Asset Management Requirements* on page 4).

Beginning in Spring 2020, participating municipalities will learn and 'do' asset management with others in their cohort in a peer-to-peer learning environment. They will be strengthening governance and decision making about infrastructure by incorporating asset management as a strategic, ongoing business process in their organization. When done systematically, asset management creates efficiencies and saves money, resources and time that will benefit the community over the long-term. Ultimately it enables local councils to make decisions that balance service levels, costs and risks to service delivery.

Each cohort involves a group of up to six small- to mid-sized municipalities located in the same general region in their province, who are at a similar stage of asset management or are a similar size. Because asset management is a multi-disciplinary and strategic business process for managing infrastructure, municipalities also had to commit to involving a team of at least three people for the duration of the program in order to be selected to participate. Usually for a very small municipality that team includes the CAO or town manager, someone from public works and a councillor.

AIM NETWORK'S RESPONSE TO THE COVID-19 PANDEMIC

AIM Network has been following closely the public health requirements for social distancing to address the **COVID-19 pandemic**. While municipalities in our Asset Management Cohort Program were scheduled to begin their workshops this Spring, we will likely need to delay them and will only reschedule when it is safe to do so.

We will be starting on preparing the inventory of participating municipalities' selected asset group, as some of this initial work can be done remotely and with digital files. We will be in touch with participating municipalities on this soon.

Thank you for your understanding. In the meantime, **stay home and stay safe!**

- Daisy Foster

Managing Director of AIM Network from her home desk.



Over the course of about 15 months, municipalities will attend five facilitated workshops and do homework in between, as they gradually make their way through the fundamental components of asset management. They will be developing asset management policies and governance structures and will be using their own data and information to plan for renewal of their infrastructure for at least one asset ...

"The biggest eye opener for me was that I realized how much I didn't know and how important this information is to make the right decisions. I am encouraged by the improvement in data and analysis that is now coming to Council, especially the maps that show the red zones where assets need immediate attention. This process not only supports staff and council in working together to set priorities, but it also helps to communicate those priorities to the public in a meaningful way."

- Mayor Gary Bishop, Pasadena, NL (participant of the inaugural cohort program)

(Continued from Page 1) class, not unlike what was done in the first program. AIM Network will be providing some one-on-one or small group technical support between workshops to help them along the way.

The most significant difference between the original program and this one is that AIM Network will support them in preparing an asset inventory for a major asset group they have prioritized, like the town's water distribution system, layer that information over a town base map in a geographic information system that shows the location of individual assets (water lines, hydrants, etc.), and summarize the infrastructure owned, life expectancy based on age and estimated replacement cost based on preliminary default values. This pre-work will provide the data foundation for municipalities to be able to progress through the rest of the program.

Foster says that a key lesson learned in implementing the first program was that many municipalities were not ready with their asset data documented in a consistent way or in a GIS system, and they needed to do a lot of up front work they had not anticipated. "This time, we've built that step right into the process and we'll be able to provide the right level of support from Day 1 of the program," she said.

Ryan Butler is in charge of maintenance in the Town of Cow Head, Newfoundland and participated in AIM Network's first cohort program. He can attest to how important it is to get asset data organized and input into a functional system in order to do effective asset management planning. His community is quite tiny, with less than 500 residents. When he first joined the municipality a few years ago he found huge gaps in knowledge caused by regular staff turnover. There were literally streets with no names and homes with no addresses or addresses that had changed. In order to find information about equipment locations he had to weed through decades old drawings, and it would take an inordinate amount of time simply to find assets that were causing problems for the community. The work involved in getting a complete registry of assets and equipment and up-to-date mapping and GIS was very intense, but he has no doubt it was a necessary step and will lead to cost savings in the long run.

AIM Network has made the templates the municipalities use to document and analyze their asset data more user friendly based on feedback from the first cohort, and it

is providing additional technical support up front to ensure their data has been collected and recorded consistently in their system and is ready to go for the subsequent stages of the program. The templates and open source tools that AIM Network offers in the cohort program are now accessible for free to any municipality that would like to try them (see article *AIM Network Enables Municipalities to Access Open Source Asset Management Tools* on page 6).

Once municipalities have their data in order, the rest of the program mirrors the previous program. Phase 1 includes 2 workshops and focuses on organizational capacity building. During this phase, municipalities prepare an asset management policy for Council adoption and a roadmap identifying their asset management priorities for the next 18 months to two years. They also identify their current and desired level of service they are providing for the services they deliver and identify strategies and actions to address the gaps.

Phase 2 focuses on prioritizing renewal and replacement of infrastructure. During this phase, municipalities analyze the potential risks to infrastructure and services, including climate risks, and the probability and consequences of those risks for at least one asset class. In assessing those risks, they prioritize the infrastructure projects they need to undertake immediately, and over the short and medium term. The final step supports them in generating a list of critical infrastructure or components within the system and strategies for preventative maintenance, monitoring and renewal. An important part of this step is to prepare capital requirement projections for the asset class they have focused on and investigate alternatives to replacement in order to manage funding shortfalls, because for most municipalities, funds available will often fall short of what is required.

AIM Network is pleased to have the opportunity to build the capacity of even more municipalities in the region to make progress on asset management. "We believe this is highly important work," said Foster. "Asset management is the most practical and strategic way to ensure that local councils have the information they need to make decisions with their eyes wide open about the costs and risks confronting them related to service delivery. It is a pathway towards financial sustainability, especially for small communities."

AIM NETWORK WELCOMES **MATT DELORME AS** TECHNICAL PROGRAM MANAGER

AIM Network is pleased to welcome Matt Delorme back to manage the technical components of its latest cohort program. Matt is a familiar face for municipalities involved with AIM Network's programming, because for the last two years he facilitated workshops in the Cohort Program and participated on AIM Network's technical advisory committee to coordinate and align asset management efforts across the Atlantic provinces. Until recently, Matt was working with Hatch Limited as its Atlantic Municipal Asset Management Lead.

Matt brings with him over twenty years of engineering design and management experience and a passion for sustainable service delivery, which helps municipalities build their communities with both present and future generations in mind. Since arriving in beautiful Nova Scotia from Vancouver in 2015, he has worked with over thirty municipalities on policy and governance, infrastructure assessment, project delivery and asset management planning. He has also been fortunate to work with



Nova Scotia and Newfoundland and Labrador on provincial tools and frameworks that support data collection, mapping, condition assessment, level of service assessment, risk management and capital planning. These projects have produced novel, open source tools and guidance documents to assist municipalities in the region with asset management planning.

Matt is actively engaged in supporting the advancement of asset management practices in Canada. He has presented at the Canadian Network of Asset Managers annual conference and the Atlantic Asset Management conferences on provincial projects, life cycle cost assessments, the AIMnet Solution toolkit and on developing asset management programs for amalgamating municipalities. He is looking forward to devoting even more of his time to supporting efforts to keep Atlantic Canada on the forefront of municipal asset management efforts in Canada.

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AIM NETWORK NEWS IS A QUARTERLY NEWSLETTER OF THE ATLANTIC INFRASTRUCTURE MANAGEMENT NETWORK, PRODUCED WITH SUPPORT FROM THE FEDERATION OF CANADIAN MUNICIPALITIES AND GOVERNMENT OF CANADA.

ASSET MANAGEMENT IS A JOURNEY, NOT A DESTINATION:

ASSET MANAGEMENT LEADER KINGS COUNTY, NOVA SCOTIA JOINS AIM NETWORK'S COHORT PROGRAM

Kings County, Nova Scotia might be considered a leader of the pack in Nova Scotia when it comes to asset management planning. The County had started with a pilot project to use geographic information systems to better document and track its asset data. And then things took off in 2016 when the County joined a peer learning program of the Federation of Canadian Municipalities called the Leadership in Asset Management Program. "The FCM program helped us put some fundamental governance pieces in place that support an organization-wide approach to asset management, including our first Council-approved asset management policy and the formation of our multi-departmental Asset Management Committee that includes both staff and members of Council," said Scott Quinn, Director of Engineering, Public Works, Lands and Parks.

In 2016, very few municipalities in Nova Scotia had started integrating asset management as a formal business process and Kings County was the only municipality in Nova Scotia that had been selected to participate in the FCM program, so it was really ahead of the game. Though as most asset management practitioners

know, there is a whole range of competencies municipalities need in order to optimize infrastructure decisions. Most importantly, they need good data and knowledge about all the assets they own and manage, including the condition they are in and the risks to them that may impact service delivery. They also need to understand how well their assets are meeting the current demand for services and how that demand is projected to change in the future. All this knowledge helps them to better plan for the future.

Quite a few municipalities in Nova Scotia have been making progress on asset management in the last few years, because they've had access to funding and capacity building support, largely through FCM grants funded by the Government of Canada (which also funds AIM Network's cohort programs). The province has also been piloting new open source asset management tools that municipalities can use to support longer term infrastructure planning. A big incentive for municipalities to adopt asset management is that they need to show progress in order to access gas tax funding for infrastructure projects.

According to Quinn, asset management has become embedded in corporate thinking and is a regular part of the conversation at the County when it comes to decision making about infrastructure. All

departments are involved. At the same time, he sees where the County needs to go with asset management and knows they still have a lot of work to do. After they completed their work with the FCM program they stagnated a bit because of other priorities. The timing is right to address some of the gaps in their competencies, and that's why the County has signed up for AIM Network's second cohort program. Quinn believes that working through the program alongside other municipalities will help get staff and Council to the next level in asset management.

Kings County is home to about 60,000 residents, 45,000 of whom live within the Municipality, which is an upper tier municipality and covers a large geographic area. Rural in character, it is also home to the towns of Kentville, Wolfville and Berwick as well as seven villages. The Municipality participates in a number of shared service or service provision arrangements with its municipal neighbours.

The population has been stable or growing slightly over the last few years, so it has fared better than many small communities in the province. Part of the reason for that could be that the local economy is doing quite well, anchored by its long established agriculture industry, Michelin, CFB Greenwood/Camp Aldershot, Acadia University, and its role as a regional centre for professional services. Wineries have been flourishing and there are tourism spin offs from that. The towns have also seen quite a few new small businesses cropping up and more development in the urbanized areas. Another exciting shift is the budding economic relationships they are developing with the neighbouring Glooscap and Annapolis Valley First

Nations. While the population is generally aging, there has been a small uptick in youth.

One of the biggest infrastructure challenges the County faces is that their wastewater services are very capital intensive relative to their population. They have eight treatment plants, 72 lift stations and over 200 km worth of collection pipe. Staff has determined that about three quarters of their inventory will be hitting the 40-year-old mark within the next five years, which means it is in the back half of its lifecycle. On the operational side they finally have their team built up and have been putting a big push on condition assessment. They now have some good data, and it's not all good news. Risks come from the fact that the infrastructure is aging, but they've also found that there are certain areas where there is hot soil so the pipes are prematurely aging. They've also found some areas where the concrete pipes that were installed in the 70s and early 80s are vulnerable to root infiltration. They've already had to replace some of it because there's really no other option. Quinn suspects that all these vulnerable pipes could be coming due for replacement in the near future.

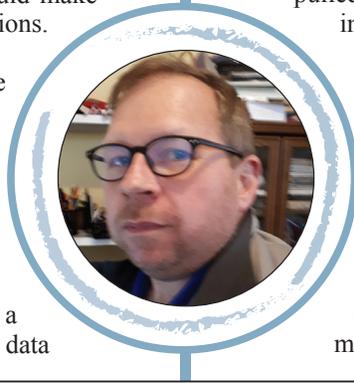
A key goal of Quinn's in the cohort program is to better understand their current and projected level of service for their water and wastewater infrastructure, which is a big gap in their knowledge, and to come up with a long-term plan for renewal and replacement. A range of options are on the table, including re-evaluating their service delivery model and the type of assets they'll use to replace the old ones. For example, some very low-density areas with as few as eight or 10 homes are served by conventional lift stations. This requires ...



Photo Credit, Kings County

(Continued from Page 3) a lot of infrastructure and is quite expensive. They may be better off setting up wastewater management nodes that are essentially on-site treatment systems, which would make more sense economically than replacing the lift stations. New technology brings new options.

Climate change is also top of mind for the County because some assets may be prone to climate change impacts. There are some areas that are and will continue to see more intense storms and precipitation, making them vulnerable to localized flooding. It may make sense to move some assets entirely in order to eliminate this conflict. Thanks to funding from FCM's Green Municipal Fund Program, the County has someone on staff in a two-year term position looking at climate risk. The data collected to date



Scott Quinn, Director of Engineering,
Public Works, Lands and Parks

will no doubt help to inform their asset management planning.

Quinn along with members of senior management team have pulled together a solid cross-departmental team to participate in AIM Network's Cohort Program in order to ensure that the knowledge gained infiltrates across the whole municipality. Those on board include the director of finance and one other finance staff, the operations manager and one of the geographic information systems staff. Quinn is also hoping to involve one of the councillors that sits on the County's Asset Management Committee. A few of them attended AIM Network's 2019 Atlantic Asset Management Conference in St. John's last September, so they are quite excited about the benefits improved asset management will bring.

NEW BRUNSWICK UPDATES ASSET MANAGEMENT REQUIREMENTS

New Brunswick's Department of Environment and Local Development is updating its Phase 2 asset management requirements for municipalities that enable them to be eligible for gas tax funding for infrastructure projects. Currently in development, the new requirements are set to be released sometime this Spring and will be included in an update to its *Guide to Asset Management Planning for Local Governments*, first published in July 2017.

AIM Network plans to align its 2020-21 Asset Management Cohort Program content in New Brunswick to ensure municipalities become equipped to meet the new requirements. Early indications are that municipalities will need to show progress in the following key areas, which we've grouped into six broad categories:

- 1 **Governance and Policy:** Linkages between asset management policy and other governance documents, establishment of a condition assessment policy;
- 2 **Levels of Service:** Definition of acceptable levels of service delivery, identification of performance measures to assess and report on level of service;
- 3 **Asset data and information:** Condition assessment and state of infrastructure reporting;
- 4 **Risk assessment including climate risk:** includes defining risk evaluation process, consideration of risk mitigation strategies for high risk assets, identification of greenhouse gas emission reduction opportunities, identification of climate change vulnerabilities;
- 5 **Cost analysis and financial planning:** includes demonstrating linkages between asset management planning and budgeting processes, cost analysis of all existing and planned assets over 50 years old, cash flow forecasts (and assumptions about them) for all assets; funding sources for the next 10 years and strategies to manage funding gaps; and
- 6 **Prioritization of investments based on good practice asset management.**

The new requirements and update to the Guide will be finalized following consultation with municipalities, and are meant to move them along in asset management from a fairly high level analysis of core asset classes to a more detailed and sophisticated analysis that better addresses the full costs and risks to infrastructure and supports prioritization of investments and longer-term financial planning. AIM Network is confident that it has the right tools and expertise to support municipalities in meeting the new requirements and looks forward to tailoring its cohort program for New Brunswick municipalities accordingly.

For more information about AIM Network's cohort program in New Brunswick, contact Daisy Foster, Managing Director of AIM Network at dfoster@aimnetwork.ca.

WHEN:

September 21-23,
2020

PLANNING IN FULL SWING!

ATLANTIC ASSET MANAGEMENT CONFERENCE 2020

WHERE:

Dartmouth,
Nova Scotia

AIM Network is proud to host the **2020 Atlantic Asset Management Conference**. This is the third year in a row that AIM Network has organized the region-wide conference, making it what has now become an annual event that our growing network in Atlantic Canada looks forward to participating in every year. This year's conference is taking place from September 21-23, 2020 in Dartmouth, Nova Scotia at the Delta Dartmouth hotel, conveniently located in the Greater Halifax area. As municipalities continue to adopt and make progress on asset management, we anticipate that the 2020 conference may bring out the largest turnout yet.

The conference is the premier event for municipalities and local governments of all sizes in Atlantic Canada wishing to share their asset management experiences, learn from their peers and colleagues, gather the latest information and knowledge from professionals and advisors, and find out about services and products available to support them with asset management planning. There will also be an opportunity to hear from senior governments on the direction and support they are providing to municipalities.

Like last year, the conference will feature content on how municipalities are integrating climate risk considerations into asset management planning. Both coastal and non-coastal communities alike are already seeing the impacts of extreme weather events like storm surges and overland flooding and much of our infrastructure wasn't built to withstand these extremes. This year we are pleased to have special guest speaker Emanuel Machado, CAO of the Town of Gibsons, BC, join us to share the pioneering work that his town has been doing to implement natural asset management. He will explain how natural assets play an important role in municipal service delivery and can sometimes deliver services more cost effectively than engineered assets, while at the same time building resilience to climate impacts.

CALL FOR ABSTRACTS NOW OPEN!

This year's conference theme is *Achieving Lasting Change to Services through Collaboration, Transformational Processes and Implementation Pathways*.

AIM Network is now inviting municipalities (and consultants working with them) to submit content ideas for sessions at the conference. Submissions should ideally align with the three conference streams outlined, but if you have a great idea that deviates slightly from the streams, don't hesitate to share it and the technical program committee will consider it.

Conference Stream	Description
<u>Collaboration</u>	<ul style="list-style-type: none">• the power of many vs. the power of one• look outside our organizations to combine efforts and grow together• work within our organizations to break down barriers and enable efficient planning
<u>Transformational Processes</u>	<ul style="list-style-type: none">• turn ideas into actions, plans into programs, deficits into sustainability, practices into policies, perceptions into reality.
<u>Implementation Pathways</u>	<ul style="list-style-type: none">• deliver change through Asset Management Programs, Plans and Tools to create affordable long-term services guided by robust decision making and accountability.

*** The deadline to submit an abstract is Wednesday, May 10th. ***

More details, including guidelines for submissions are available on AIM Network's website at www.aimnetwork.ca/2020conference

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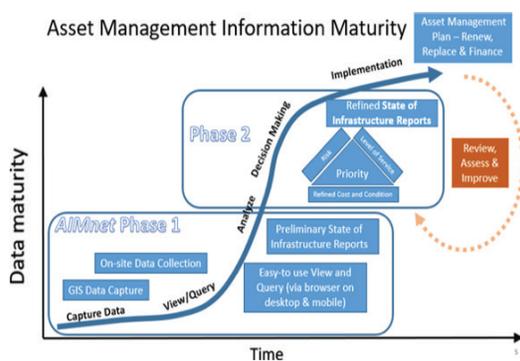
At its heart, AIM Network is a not-for-profit municipal asset management community of practice with a mission to advance the knowledge base and practice of asset management in Atlantic Canada. The conference continues to be the key venue for sharing knowledge and connecting practitioners and policy makers and it could not be done without the support of our sponsors and exhibitors. AIM Network is grateful for its past supporters and is always ready to welcome new ones. Companies and organizations interested in becoming a sponsor and/or exhibitor in 2020 can contact Daisy Foster at: dfoster@aimnetwork.ca.

LEARN MORE

To learn more about the conference, visit www.aimnetwork.ca/2020-conference. Registration for the conference is scheduled to open around mid-May.

AIM NETWORK ENABLES MUNICIPALITIES TO ACCESS OPEN SOURCE ASSET MANAGEMENT TOOLS

AIM Network is pleased to be able to share publicly the AIMnet Toolkit, a set of asset management software guides, tools and methodologies that assist municipalities in preparing an infrastructure inventory and analyzing and reporting on asset data. The Toolkit provides the nuts and bolts – templates, worksheets, spreadsheets and software – and links them all together to create an asset management program. This supports municipalities in developing the knowledge needed to plan and budget effectively for infrastructure investments. AIM Network calls the whole process the AIMNet Solution (shown in the image below) and it is tailored towards municipalities building asset capacity within their organization.



The Toolkit is easy-to-use and presents information clearly and visually in a way that supports evidence-based decision-making. It is open source because it has been developed “by and for the community” and is available for free to anyone who would like to use it under Creative Commons licensing. While its development was initiated by AIM Network, many successive users have built on the basic principles and design to enhance it and have contributed to its continued development.

The software in the latest version of the Toolkit reflects contributions made by a broad range of users from provincial governments and the private sector. Enhancements have also been made through working with the 33 municipalities involved in AIM Network’s first cohort program, which was delivered with support from the Municipal Asset Management Program, which is delivered through the Feder-

ation of Canadian Municipalities and funded by the Government of Canada.

Municipalities in each of the four Atlantic Provinces as well as some in BC are now using the Toolkit. Nova Scotia’s Department of Municipal Affairs was instrumental in development of the open source inventory spreadsheet provided in the Toolkit, so the software and templates seamlessly integrate with Nova Scotia’s Infrastructure Registry for Municipal Assets (IRMA) system (used for tracking the state of municipal infrastructure). AIM Network intends to support integration with the template for reporting being prepared by the Province of Newfoundland and Labrador, and The Toolkit is also being used by the Province of PEI to support smaller municipalities with asset management planning.

Matt Delorme has recently left his position as Hatch Limited’s Atlantic Asset Management Lead to be the technical program manager for AIM Network’s new Asset Management Cohort Program. He estimates there may be close to 100 municipalities in Atlantic Canada currently using some or all of AIM’s software and templates. Besides those being assisted directly by AIM Network, a number of consultants use the software as a cost-effective tool to help their municipal clients implement asset management. “The feedback I’ve received to date on the tools has been very positive and the open source model has permitted us to get extensive input from a wide range of users to fill functional gaps and tailor performance to the user base,” said Delorme. AIM Network will be supporting more municipalities to use the Toolkit in its new cohort program and Matt expects that the additional users will continue to provide input for increased functionality.

1 An enhanced Microsoft Excel spreadsheet is used to store inventory data and generate reports. The spreadsheet stores all common asset classes, subclasses and asset types, along with replacement costs, maintenance costs and reserve funding requirements. Data storage includes all common linear asset types (roads, water, wastewater and stormwa-

ter) as well as non-spatial assets such as facilities, recreation and fleet.

2 Geographic Information Systems (GIS) mapping linked to the spreadsheets can be used with the open source QGIS software suite or commercially available Esri software. The software and templates enable users to generate colour coded condition, consequence of failure and priority maps for easy visual reference to infrastructure condition and trouble spots.

3 Worksheets within the spreadsheet store all the asset characteristics, current value, replacement cost and annual operational cost, condition rating, consequence of failure rating, priority rating and condition degradation profiles, along with a variety of administrative information for each asset.

4 Preliminary State of Infrastructure Reports (PSOIR) summarize what is owned, how much it is worth, when it is projected to reach end of life, condition summaries and anticipated infrastructure deficit by end of life of the assets.

5 A risk worksheet allows adoption of varying risk profiles that change the way infrastructure works are prioritized.

6 Refined State of Infrastructure Reports (RSOIR) show infrastructure cost projections based on risk-based prioritization. The reports support capital planning and assist with identifying funding shortfalls or overages. They also assess different asset management strategies and planning for climate change scenarios. The data and reports are stored and presented in an open, transparent format that is easy to use, interpret and communicate.

For more information or to preview the Toolkit, visit **AIM Network’s website:** <https://www.aimnetwork.ca/aboutaimnet>

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