

Appendix L

AM Strategy
Resource Requirements



AM Strategy Resource Requirements

Document History

Version	Summary of Changes	Document Status	Date
1	First-generation document for AM Strategy	Final	June 2023

Purpose

The purpose of this memo is to identify the additional resources that are anticipated to be required to implement the Asset Management (AM) Strategy, including:

- **Staff Resources:** Estimated additional staff required in the short term to complete the 2023-2027 Implementation Plan, and required on an ongoing basis to support continuous improvement of Saanich’s AM practices
- **Funding Resources:** Estimated additional one-time and ongoing funding requirements to complete the 2023-2027 Implementation Plan

The details and timing of requests for additional resources will be refined, prioritized, and submitted for Council consideration as part of the annual Financial Plan process over the next several years.

Although AM is not new to Saanich, the implementation of a formalized approach to AM will require additional staffing and funding resources as new business processes are developed over time. The phased approach to AM resource planning is illustrated in Figure 1, including:

- **Preliminary Review:** This memo outlines the results of a preliminary review of resources required to complete the 2023-2027 Implementation Plan.
- **Updates:** Resource requirements will be reviewed and refined through implementation of several of the strategies in the 2023-2027 Implementation Plan, including:
 - *Strategy 2: Develop AM Software Solution* - Depending on the recommended solution, there may be requirements for additional resources, which will be identified in the business case.
 - *Strategy 4: Complete First-Generation AM Plans* - After developing and documenting levels of service and the resulting lifecycle activities and costs, the capacity of existing staff and funding to complete the required activities will be assessed and any additional resource requirements identified.
 - *Strategy 5: Update Infrastructure Replacement Funding Strategy* - If the value of the annual capital program increases as a result of the increased sustainable annual replacement funding target, then additional staff resources will be required to deliver the capital program.
 - *Strategy 9: Develop AM Competency Management Program* - As part of the development of this program, a detailed review of staffing resource requirements will be completed using the guidance document *Asset Management Competency Framework for Canadian Communities* (CNAM, 2021).



- **Longer Term:** It is anticipated that as Saanich's AM practices continue to improve over time, and as Saanich's population increases, additional staff and resources may be required.

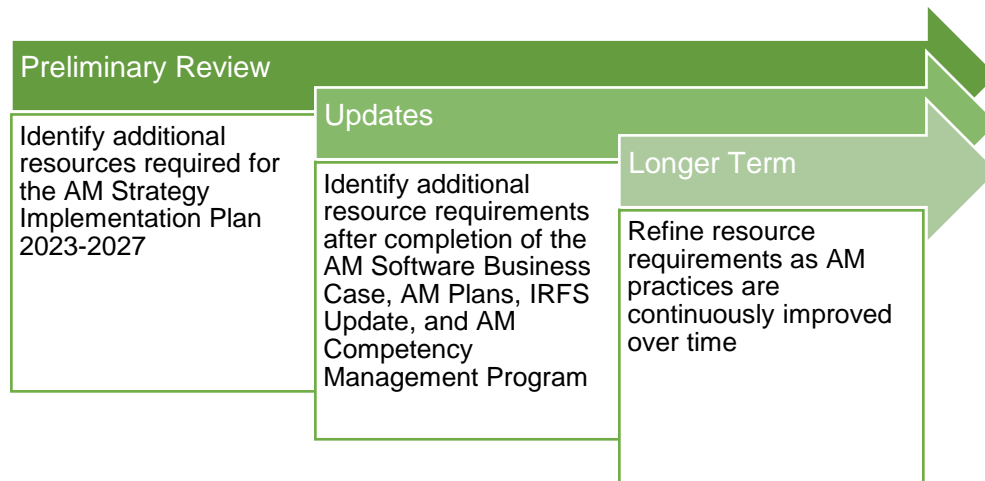


Figure 1 - Phased Approach to AM Program Resource Planning

Return on Investment in Asset Management

Saanich's investment in additional resources to support implementation of the AM Strategy is expected to result in a significant return on that investment through cost savings resulting from improved operational efficiency. For example, there is a significant opportunity for cost savings by extending useful life and reducing the risk of failure of Saanich's \$4.7 billion portfolio of engineered assets.

Asset Management Program Roles and Responsibilities

Saanich's AM Program governance structure follows a centre of excellence model, where centralized AM Program staff provide guidance and support to staff to the Operational Units, which carry-out the day-to-day work of managing assets and delivering services to the community. Saanich intends to implement the AM Program using in-house staff as much as possible, in order to develop internal AM competency and foster a culture of asset management.

As shown in Figure 2, AM Program functions include general AM functions, service delivery functions and support functions:

- **General AM Functions:** District-wide AM activities are carried out by the AM Program Office staff.
- **Service Delivery Functions:** In the Operational Units, staff manage assets to deliver services to the community, and are responsible for developing and implementing the AM Plans applicable to the applicable service areas. Operational Unit functions are broken down into three key areas:
 - Planning & analysis (P&A)
 - Design & construction (D&C)
 - Operations & maintenance (O&M)



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- **Support Functions:** District-wide support is provided to the AM Program Office and the Operational Units by several departments, including Finance, Human Resources, Information Technology, Planning, Risk Management and Sustainability.

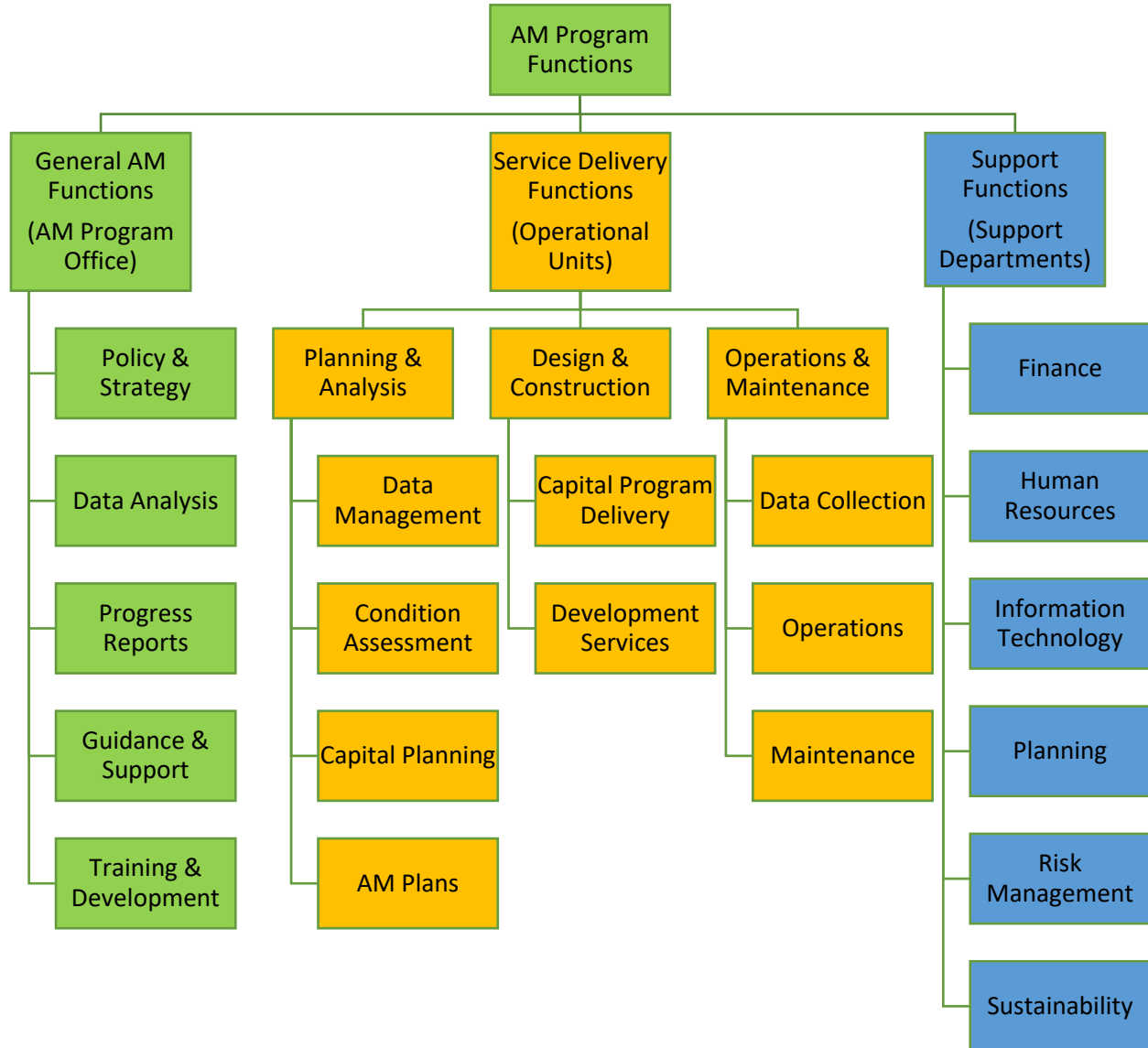


Figure 2 - AM Program Roles and Responsibilities



Saanich Staffing Plan

Saanich’s current staffing plan¹ was completed in February 2022. It includes recommended staffing needs for 2022, 2023, 2024, and identifies additional positions for consideration beyond 2024. In general, the plan indicates that the District has been under-resourced in terms of staff for many years, and that there is a need to catch up with additional staffing resources.

The plan also includes a framework for new position approval as shown in Figure 3.

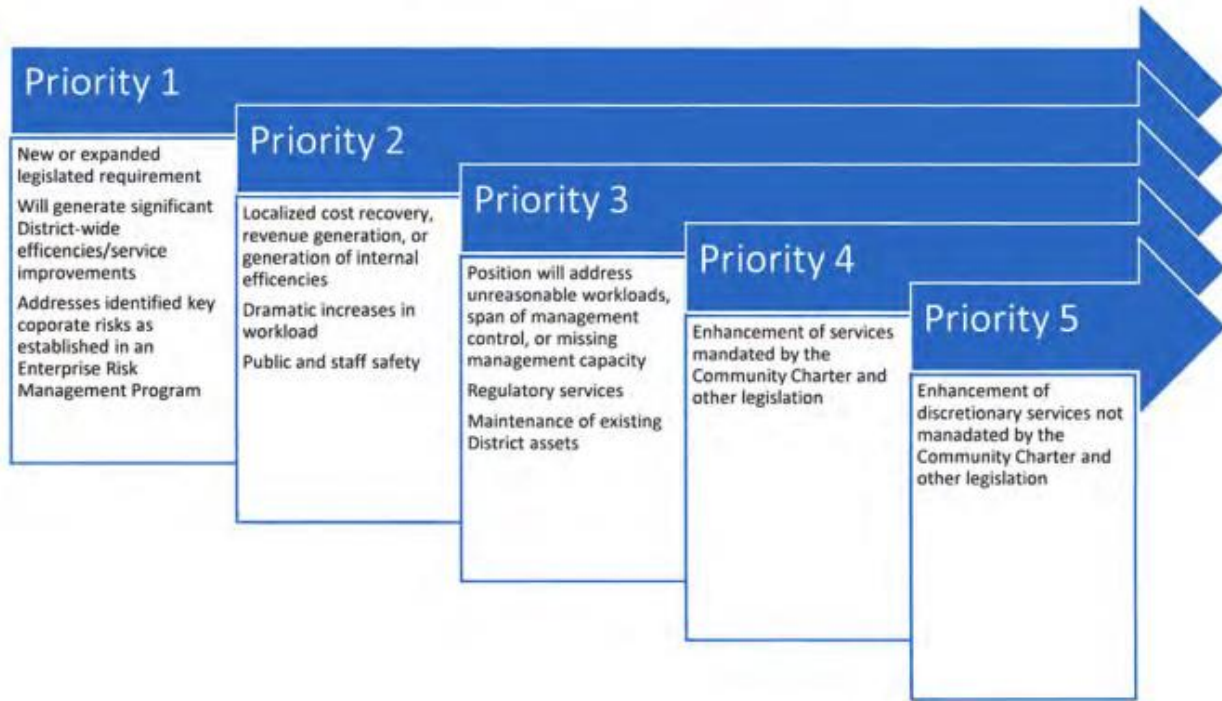


Figure 3 - Framework for New Position Approval (James Ridge, 2022)

Although the plan was developed prior to the start of work on the AM Strategy, it includes the following references related to the AM Program:

- **Priority One**
 - **New or expanded legislated requirement:** The current staffing plan does not identify any District-wide general asset management positions, however it does identify asset management as an example of an area where there may be legislated requirements in future. There are provincial reporting requirements related to asset management. In addition, strengthening AM practices in

¹ Staffing Plan – District of Saanich, James Ridge Consulting (February 2022), [Staffing Plan - District of Saanich \(granicus.com\)](https://www.granicus.com/publicinfo/id.php?id=289746)



accordance with the provincial AM framework is a requirement of Saanich's 2014-2024 Community Works Fund Agreement (formerly Gas Tax Fund Agreement), and the province has signaled that there will be additional requirements regarding continuous improvement of AM practices when this agreement is renewed in 2024.

- **Significant District-wide efficiencies or service improvements:** The current staffing plan identifies two new Financial Analyst positions with 2022-2023 timing.
- **Priority Two**
 - **Localized cost recovery or revenue generation:** An example of this would be opportunities identified in the AM Plans.
 - **Dramatic increases in workload:** An example of this would be an increase in the capital program.
- **Priority Three**
 - **Workload:** Staff capacity increases may be required to maintain levels of service.
 - **Maintenance of existing District assets:** The current staffing plan indicates that asset maintenance positions are “necessary to properly maintain existing assets, in doing so prolongs their life, or ensure their proper functioning to end of expected life”, and identifies one new position in the Engineering Department (Fleet Services) and four new positions in the Parks, Recreation and Community Services Department.
- **Priority Four**
 - **Incremental enhancement to Provincially mandated services:** Staff capacity increases may be required to address increases to levels of service for mandatory services.
- **Priority Five**
 - **Incremental enhancement to discretionary services:** Staff capacity increases may be required to address increases to levels of service for discretionary services.

Existing Resources

General AM Functions

Currently, there is one full-time equivalent (FTE) position dedicated to District-wide AM functions, the Asset Management Program Manager (AMPM), which was a new position approved by Council in 2021.

Service Delivery Functions

Although staffing levels vary between departments, each of the Operational Units has some existing staff performing asset management functions in each of the three key areas:

- P&A
- D&C
- O&M

However, each of the Operational Units has identified that there is limited ability within the existing staff complement to implement the strategies identified in the AM Strategy 2023-2027 Implementation Plan or to take on new, formalized AM functions over the longer term.



The Operational Units have also identified the need for new mobile technology devices and software that will allow field staff to update asset inventory data to a central database, use asset data to support decision-making, and streamline maintenance management processes.

Support Functions

With the exception of Finance, the support departments do not require additional staff resources to support implementation of the AM Strategy, although additional resources may be identified in future as the program matures.

The Finance Department currently has limited ability within the existing staff complement for additional financial analysis in support of the AM Strategy in the short and medium term, or in support of general AM functions in the longer term.

Additional Staff Resource Requirements

Overview

A preliminary assessment was completed to identify new staff resources required to implement the AM Strategy and continue to improve Saanich's AM practices. This assessment was based on best professional judgement with information available at this time.

It is important to note that the formalization of AM practices is new to Saanich and also relatively new to many of our comparator municipalities across Canada. Therefore, this preliminary assessment will be refined over time, as Saanich's AM practices mature and new information becomes available. New information will be communicated to Council through annual update reports on progress of the AM Program.

Staff requests will be prioritized and submitted to Council for consideration through the annual Financial Plan process, with consideration for space allocation and impacts on support departments.

General AM Functions

A core need for the future success of the AM Program is additional District-wide AM expertise, in order to provide support and guidance to the Operational Units and for ongoing completion of general AM functions.

A review of the staffing models for the general AM functions of several comparator municipalities was undertaken, and the results are shown in Attachment 1. The review revealed the following:

- Many municipal comparators have a similar governance structure to Saanich, with a centralized team performing the general AM functions across the organization
- Typically, the centralized team includes a Manager, and several supporting staff

Based on this review, it is recommended that Saanich request two new "AM Advisor" positions, which would report to the AMPM and provide ongoing support to the Operational Units.

In the short term, the first "AM Advisor" position would focus on supporting the Operational Units in the development of their first-generation AM Plans (*Strategy 4: Complete First-Generation AM Plans*) and the AM guidance documents (*Strategy 8: Develop AM Practices Manual*), and



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the second “AM Advisor” position would focus on improving Saanich’s asset data management (*Strategy 1: Improve Data Management*) and software development (*Strategy 2: Develop AM Software Solution*). In the longer term, both “AM Advisor” positions would provide ongoing guidance and support to the Operational Units for the continuous improvement of Saanich’s AM practices, as well as general AM functions such as data analysis, reporting, and staff training and development.

The Finance Department requires one new “Finance Asset Management Coordinator” position to support implementation of the AM Strategy (in addition to the two positions identified in Saanich’s current Staffing Plan). In the short to medium term, the new position would provide financial input to *Strategy 1: Improve Data Management*, *Strategy 2: Develop AM Software Solution*, *Strategy 4: Complete First-Generation AM Plans*, *Strategy 5: Update Infrastructure Replacement Funding Strategy*, *Strategy 6: Develop Unit Cost Database*, and *Strategy 7: Update Annual and Long Term Financial Plans*, and would then provide ongoing support for the AM Program over the longer term.

In summary, as shown in Table 1, a total of three additional FTE are required to support general AM functions.

Table 1: Staff Resource Requirements for General AM Functions

Department/Area	Position	2024-2025
Engineering/AM Program Office	Asset Management Advisor	2 FTE
Finance	Finance Asset Management Coordinator	1 FTE
Total		3 FTE

Service Delivery Functions

Through a series of workshops with the Asset Management Working Group (AMWG), a preliminary assessment was undertaken to of the staffing resources needed in the Operational Units to support formalization of Saanich’s AM practices.

In general, it was determined that existing staff are already stretched with no available capacity to support additional workload, and that additional staffing resources will be required to support the AM Program.

In particular, staffing resources to carry out asset P&A functions are currently deficient, as these areas have not been adequately staffed in the past to correspond with population growth and increases to Saanich’s portfolio of assets. Currently, the staff who would normally carry out asset P&A functions have been focused on a number of new strategic priorities and initiatives that require infrastructure analysis, such as planning for growth, housing, BC Transit planning, Climate Plan and Active Transportation Plan implementation. Additional staffing resources will also be required to support D&C and O&M functions.

Requests for additional staffing resources required by the Operational Units to support the AM Program will be refined and identified in the coming years. It is important to note that many of these new positions will be funded through the capital program and will not impact taxation rates. New positions that will impact taxation rates will be prioritized and brought forward for consideration by Council through the annual Financial Plan process.



Given the current deficiency in Saanich's staffing resources, many of the functions for managing our assets are carried out by consultants, which is a more expensive funding model and does not support building of internal AM competency. Bringing these functions in-house and building Saanich's internal capacity will support achievement of the key principles of the AM Policy and move Saanich towards the goal of sustainable service delivery.

Support Functions

At this time, besides the Finance Department, the support departments have not identified the need for additional resources beyond those identified in the current Saanich Staffing Plan:

- **Human Resources:** It is not anticipated that Human Resources will require additional resources to support the AM Strategy.
- **Information Technology (IT):** At this time, the IT Department has not identified any additional staff resource requirements to support the AM Strategy, as it is anticipated that IT Subject Matter Experts can be made available for the initial project work. However, resource planning in IT is ongoing and assesses a broad picture of all demand from all departments, and additional resource requirements may be identified as more information becomes available.
- **Planning:** It is not anticipated that Planning will require additional resources to support the AM Strategy.
- **Risk Management:** It is not anticipated that Risk Management will require additional resources to support the AM Strategy.
- **Sustainability:** A significant amount of Sustainability staff time will be required to support the integration of climate change considerations with the implementation of the AM Strategy. Assessment of staff needs will be undertaken as part of the Annual Climate Report Card and submitted for consideration through the annual budget process.

Additional Funding Requirements

Preliminary estimates of one-time funding requirements for implementing the AM Strategy are shown in Table 3. These funding requests will be refined and submitted to Council for consideration through the annual Financial Plan process. A portion of these funding requests may be funded directly from the Water and Sewer Utility surplus.

In addition, depending on the approved Business Case for development of an AM software solution, there may be ongoing costs for new software licensing starting in 2027, with a preliminary estimated cost of up to approximately \$0.5 million per year.



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Table 3: Estimated One-Time Funding Requirements

Strategy (Project Number)	Description	2024	2025	2026	2027	Total 2024-2027
Strategy 1 (Project 1.4)	Purchase new mobile devices for asset data collection.	\$0.7M				\$0.7M
Strategy 2 (Projects 2.3 to 2.9)	Specialized consulting services for software pilot projects.	\$0.2M	\$0.2M			\$0.4M
Strategy 2 (Project 2.11)	Provide AM software capacity in accordance with approved Business Case.			\$0-2M		\$0-2 M
Strategy 4 (Projects 4.1 to 4.9)	Specialized consulting services for AM Plans.	\$0.1M	\$0.1M	\$0.1M	\$0.1M	\$0.4M
Strategy 9 (Projects 9.1 to 9.2)	Specialized consulting services for AM Competency Management Program.		\$0.1M	\$0.1M		\$0.2M
Strategy 9 (Project 9.3)	Provide staff with AM Program training.				\$0.2M	\$0.2M
Total	Total	\$1.0M	\$0.4M	\$0.2-2.2M	\$0.3M	\$1.9-\$3.9M

The rationale for the estimated one-time funding requirements identified in Table 3 is as follows:

- **Mobile Devices for Asset Data Collection:** Purchase of new mobile devices for staff to support field data collection. A preliminary estimate of \$0.7 million is included for forecasting purposes (based on \$5,000 per tablet with 106 tablets, and \$3,000 per truck-mounting cradle with 55 cradles).
- **Specialized Consulting Services for Software Pilot Projects:** Specialized IT consultant support for pilot projects to assess the use of Saanich’s existing software for AM. A preliminary estimate of \$0.4 million is included for forecasting purposes.
- **Provide AM Software Capacity:** Procurement of AM Software may be required, depending on the results of the business case. A preliminary estimate of \$0-2 million is included as a placeholder for forecasting purposes.
- **Specialized Consulting Services for AM Plans:** Specialized consultant advisory services may be required to support the development of the first generation AM Plans and AM Practices Manual. A preliminary estimate of \$0.1 million per year for a total of \$0.4 million is included for forecasting purposes.
- **Specialized Consulting Services for AM Competency Management Program:** Specialized consultant advisory services may be required to support the development of the AM Competency Management Program. A preliminary estimate of \$0.2 million is included for forecasting purposes.
- **Staff Training:** For forecasting purposes, a placeholder of \$0.2 million is included for provision of AM training to staff based on the AM Competency Management Program.



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Attachment 1: Municipal Comparators for General AM Functions

Municipality	Population (2021)	General AM Staff (# FTE)	General AM Positions
City of Port Coquitlam, BC*	61,000	3	<ul style="list-style-type: none"> • Manager of Infrastructure Planning (1) • Project Engineer (1) • Engineering Technician (1)
District of North Vancouver, BC**	88,000	3	<ul style="list-style-type: none"> • Manager, Asset Management & Capital Planning (1) • Account Officer (1) • Financial Analyst (1)
City of Prince George, BC*	89,000	3	<ul style="list-style-type: none"> • Asset Manager (1) • Engineering Technologist (1) • Financial Analyst (1)
City of Victoria, BC**	94,000	2	<ul style="list-style-type: none"> • Asset Management Specialist (1) • Asset Systems Coordinator (1)
City of Kelowna, BC*	143,000	3	<ul style="list-style-type: none"> • Manager, Infrastructure Engineering (1) • Asset Manager (1) • Project Manager (1)
City of Burlington, ON**	187,000	5	<ul style="list-style-type: none"> • Manager of Asset Planning (1) • Asset Planning Coordinator (1) • Manager of Finance, Asset Management (1) • Financial Analyst (2)
Town of Oakville, ON**	214,000	7	<ul style="list-style-type: none"> • Manager of Asset Management (1) • Fixed Asset Analyst (4) • AM System Integrity Analyst (1) • AM Data Scientist (1)
Capital Regional District, BC**	415,000	4	<ul style="list-style-type: none"> • Manager, Asset Management (1) • Asset Management Advisor (1) • Project Engineer, Asset Management (1) • Senior Program Analyst, Grants and Asset Management (1)
City of Vancouver, BC**	662,000	~13	<ul style="list-style-type: none"> • Manager, Engineering Strategy and Standards (part of 1 FTE) • Senior Project Manager (part of 1 FTE) • Project Manager (part of 1 FTE) • Operational Branches each have 2 FTE dedicated to AM (total 10)

Sources: * This information was gathered in 2019 by Saanich staff. ** This information was gathered in 2022-2023 by Saanich staff.