1. Welcome to the Canadian Municipal Survey on Leveraging Asset Master Data and Information

Thank you for agreeing to participate in our survey aimed at developing a comprehensive business case and training program for Municipalities. Your input is crucial in shaping the future of asset management practices and ensuring that "Maintenance ready" assets are established as part of Asset management planning and early lifecycle stages such as Design and Installation.

By "Maintenance ready," we mean assets that are selected are installed with all the necessary data, information, and allocated resources to facilitate effective and efficient maintenance activities. This ensures that assets are optimized for performance and longevity, while minimizing downtime and repair costs.

Your participation in this survey will help us identify the key areas that need improvement, and enable us to develop a comprehensive training program that will equip Municipalities with the necessary tools and knowledge to manage their assets effectively.

Once again, thank you for your participation, and we look forward to receiving your valuable input in this survey.

2. Survey Structure

This survey consists of three sections:
Section 1: General information (one page)
Section 2: Asset master data and information (23 pages)
Section 3: Asset management system (one page)

Survey Notes:
(a) Each section has some pages, as shown above. Each page has several questions. Once you answer the questions on a page, click next to move to the following page.

(b) Each page of Section 2 has the same questions but for different asset data/information.

(c) You can partially complete the survey, save your responses, and re-enter the survey at a later time to complete your final submission. Click the "Done" button on the last page of the survey each time to save your answers so far. Follow the original "Begin Survey" link in the invitation email to continue editing/responding to the survey. Survey responses should be received by Friday, June 30 to be included in the initial results. The survey will remain open beyond that for late responses.

Municipal Survey on Leveraging Asset Master Data and Information

3. Section 1 - General Information

1. What province/territory is your municipality located in?

- ○ AB
- ○ BC
- ○ MB
- ○ NB
- ○ NL
- ○ NS
- ○ ON

- ○ PE
- ○ QC
- ○ SK
- ○ YT
- ○ NU
- ○ NT

2. What is the size of the population served by your municipality or utility?

- ○ Very small: less than 5,000 people
- ○ Small: 5,000 to 29,999 people
- ○ Medium: 30,000 to 99,999 people

- ○ Large: 100,000 to 399,000 people
- ○ Very large: more than 400,000 people

3. What Section do you work in ?

- ○ Capital Engineering
- ○ Maintenance Management
- ○ Reliability Engineering
- ○ Asset Planning
- ○ Operations
- ○ Finance
- ○ Asset Management
- ○ Other (please specify)

4. Which asset classes are managed by your team? (Select all that applies)

- ☐ Stormwater
- ☐ Water and Wastewater - Vertical e.g. Treatment plants and Stations
- ☐ Water and Wastewater - Linear e.g. Pipes
- ☐ Transit
- ☐ Roads
- ☐ Bridge
- ☐ Culverts
- ☐ Solid waste
- ☐ Fleet services
- ☐ Public buildings
- ☐ Parks and recreational facilities
- ☐ Public housing
- ☐ Lands
- ☐ Information technology
- ☐ I am not sure
- ☐ Other (please specify)

5. Please provide your job title.

- ○ Commissioner
- ○ Director
- ○ Manager
- ○ Supervisor
- ○ Analyst/Specialist
- ○ Technician
- ○ Other (please specify)

6. If you would like to receive a survey report comparing your organization's results with those of other respondents in the same municipality size category in an aggregated format, please enter your email address here.
Note: This email will be used strictly for sending you the summary report without any identifier data.

- ☐ Please email me the aggregate results

Enter your email if you are interested in receiving aggregate results:

7. We like to follow up with some municipalities doing exemplary work. If you can help, please click Yes and enter your name and the municipality name here.

- [ ] Yes
- [ ] No
- [ ] Enter your name and municipality if interested:

4. Section 2 - Asset master data - **Equipment ID#/CODE**

Note: A unique identification number assigned to an asset

8. Is Equipment ID Number/Code data collected?

○ Yes

○ No

9. What lifecycle stage is the Equipment ID Number/Code data collected? (Select all that apply)

☐ Planning & Design

☐ Build/Acquisition/Commission

☐ Operation & Maintenance

☐ Decommission and Disposal

☐ Other (please specify)

[   ]

10. How is the Equipment ID Number/Code data Collected ?

☐ Tabularized, minimum/no connection to other asset master data

☐ Tabularized, established connections to other asset master data

☐ Scattered, exists throughout one or multiple design/project documents (O&M manuals, as-builts, etc.)

☐ Standalone report/document

☐ N/A – data is not collected

☐ Other (please specify)

[   ]

11. Where is the Primary data/information storage location?

☐ CMMS

☐ GIS

☐ ERP

☐ Excel

☐ Other

Provide the name of the software and module utilized

[   ]

12. Who are the main users of the Equipment ID Number/Code data? (Select all that apply)

- [ ] Maintenance
- [ ] Operations
- [ ] Capital
- [ ] Finance
- [ ] Procurement
- [ ] Other (please specify)

13. (Optional) Please provide any clarifying/additional comments regarding Asset ID number of Code Data

5. Section 2 - Asset master data - **Asset Description**

Note: A detailed description of the asset, including its purpose, function, criticality, regulatory flags and serial numbers.

14. Is Asset Description data collected?

○ Yes

○ No

15. What Asset Description data is typically collected? (Select all that apply):

☐ Purpose

☐ Function

☐ Criticality

☐ Climate Change

☐ Regulatory flags

☐ Serial numbers

☐ Other (please specify)

[   ]

16. What lifecycle stage is the Asset Description data collected? (Select all that apply)

☐ Planning & Design

☐ Build/Acquisition/Commission

☐ Operation & Maintenance

☐ Decommission and Disposal

17. How is the Asset Description data Collected?

☐ Tabularized, minimum/no connection to other asset master data

☐ Tabularized, established connections to other asset master data (e.g. through CMMS/ERP software)

☐ Scattered, exists throughout one or multiple design/project documents (O&M manuals, as-builts, etc.)

☐ Standalone report/document

☐ Standardized asset identity (with a systematic method to positively and uniquely identify each asset)

☐ N/A – data is not collected

☐ Other (please specify)

[   ]

18. Where is the Primary data/information storage location?

☐ CMMS

☐ GIS

☐ ERP

☐ Excel

☐ Other

Specify system name

[   ]

19. Who are the main users of the Asset Description data and information?

☐ Maintenance

☐ Operations

☐ Capital

☐ Finance

☐ Procurement

☐ Engineering

20. (Optional) Please provide any clarifying/additional comments regarding Asset Description

[   ]

6. Section 2 - Asset master data - **Asset Classification**

Note: The category or type of asset, such as machinery, building, or vehicle.

21. Is data collected?

○ Yes

○ No

22. What data is typically collected? (Select all that apply):

☐ Category

☐ Type

☐ Class

☐ Other (please specify)

_____

23. What lifecycle stage is the data collected? (Select all that apply)

☐ Planning & Design

☐ Build/Acquisition/Commission

☐ Operation & Maintenance

☐ Decommission and Disposal

24. How is the data Collected?

☐ Tabularized, minimum/no connection to other asset master data

☐ Tabularized, established connections to other asset master data

☐ Scattered, exists throughout one or multiple design/project documents (O&M manuals, as-builts, etc.)

☐ Standalone report/document

☐ N/A – data is not collected

☐ Other (please specify)

_____

25. Where is the Primary data/information storage location?

☐ CMMS

☐ GIS

☐ Financial Fixed Registry

☐ ERP

☐ Excel

☐ Other

Specify system name

[   ]

26. Who are the main users of the data and information?

☐ Maintenance

☐ Operations

☐ Capital

☐ Finance

☐ Procurement

☐ Other (please specify)

[   ]

27. (Optional) Please provide any clarifying/additional comments regarding Asset Classification

[   ]

7. Section 2 - Asset master data - **Asset Location**

Note: The physical location where the asset is located.

28. Is data collected?

○ Yes

○ No

29. What data is typically collected? (Select all that apply):

☐ Physical address

☐ GPS coordinates

☐ Functional Location

☐ Other (please specify)

[   ]

30. What lifecycle stage is the data collected? (Select all that apply)

☐ Planning & Design

☐ Build/Acquisition/Commission

☐ Operation & Maintenance

☐ Decommission and Disposal

31. How is the data Collected ?

☐ Tabularized, minimum/no connection to other asset master data

☐ Tabularized, established connections to other asset master data

☐ Scattered, exists throughout one or multiple design/project documents (O&M manuals, as-builts, etc.)

☐ Standalone report/document

☐ N/A – data is not collected

☐ Other (please specify)

[   ]

32. Where is the Primary data/information storage location?

☐ CMMS

☐ GIS

☐ Financial Fixed Registry

☐ ERP

☐ Excel

☐ Other

Specify system name

[   ]

33. Who are the main users of the data and information?

☐ Maintenance

☐ Operations

☐ Capital

☐ Finance

☐ Procurement

☐ Other (please specify)

[   ]

34. (Optional) Please provide any clarifying/additional comments regarding Asset Location

[   ]

8. Section 2 - Asset master data - **Asset Value**

Note: The estimated value of the asset based on its purchase price or depreciated value.

35. Is data collected?

○ Yes

○ No

36. What data is typically collected? (Select all that apply):

☐ Purchase price

☐ Depreciated value

☐ Replacement value

☐ Other (please specify)

[   ]

37. What lifecycle stage is the data collected? (Select all that apply)

☐ Planning & Design

☐ Build/Acquisition/Commission

☐ Operation & Maintenance

☐ Decommission and Disposal

38. How is the data Collected ?

☐ Tabularized, minimum/no connection to other asset master data

☐ Tabularized, established connections to other asset master data

☐ Scattered, exists throughout one or multiple design/project documents (O&M manuals, as-builts, etc.)

☐ Standalone report/document

☐ N/A – data is not collected

☐ Other (please specify)

[   ]

39. Where is the Primary data/information storage location?

☐ CMMS

☐ GIS

☐ Financial Fixed Registry

☐ ERP

☐ Excel

☐ Other

Specify system name

[   ]

40. Who are the main users of the data and information?

☐ Maintenance

☐ Operations

☐ Capital

☐ Finance

☐ Procurement

☐ Other (please specify)

[   ]

41. (Optional) Please provide any clarifying/additional comments regarding Asset Value

[   ]

9. Section 2 - Asset master data - **Asset Lifecycle Dates**

Note: The stages of the asset's life, from acquisition to disposal.

42. Is data collected?

○ Yes

○ No

43. What data is typically collected? (Select all that apply):

☐ Acquisition - Start and End Date

☐ Planning & Design/Build - Start and End Date

☐ Commissioning - Start and End Date

☐ Operating - Start and End Date

☐ Maintenance - Start and End Date

☐ Decommissioning - Start and End Date

☐ Disposal- Start and End Date

☐ Other (please specify)

[   ]

44. What lifecycle stage is the data collected?

☐ Planning & Design

☐ Build/Acquisition/Commission

☐ Operation & Maintenance

☐ Decommission and Disposal

45. How is the data Collected ?

☐ Tabularized, minimum/no connection to other asset master data

☐ Tabularized, established connections to other asset master data

☐ Scattered, exists throughout one or multiple design/project documents (O&M manuals, as-builts, etc.)

☐ Standalone report/document

☐ N/A – data is not collected

☐ Other (please specify)

[   ]

46. Where is the Primary data/information storage location?

☐ CMMS

☐ GIS

☐ Asset Management System

☐ ERP

☐ Excel

☐ Other

Specify system name

[   ]

47. Who are the main users of the data and information?

☐ Maintenance

☐ Operations

☐ Capital

☐ Finance

☐ Procurement

☐ Other (please specify)

[   ]

48. (Optional) Please provide any clarifying/additional comments regarding Asset Lifecycle Dates

[   ]

10. Section 2 - Asset master data - **Asset Lifecycle Costs**

Note: The stages of the asset's life, from acquisition to disposal.

49. Is data collected?

○ Yes

○ No

50. What data is typically collected? (Select all that apply):

☐ Acquisition - Costs

☐ Planning & Design/Build - Costs

☐ Commissioning - Costs

☐ Operating - Costs

☐ Maintenance - Costs

☐ Decommissioning - Costs

☐ Disposal- Costs

☐ Other (please specify)

_____

51. What lifecycle stage is the data collected? (Select all that apply)

☐ Planning & Design

☐ Build/Acquisition/Commission

☐ Operation & Maintenance

☐ Decommission and Disposal

52. How is the data Collected ?

☐ Tabularized, minimum/no connection to other asset master data

☐ Tabularized, established connections to other asset master data

☐ Scattered, exists throughout one or multiple design/project documents (O&M manuals, as-builts, etc.)

☐ Standalone report/document

☐ N/A – data is not collected

☐ Other (please specify)

_____

53. Where is the Primary data/information storage location?

☐ CMMS

☐ GIS

☐ Financial Fixed Registry

☐ ERP

☐ Excel

☐ Other

Specify system name

[   ]

54. Who are the main users of the data and information?

☐ Maintenance

☐ Operations

☐ Capital

☐ Finance

☐ Procurement

☐ Other (please specify)

[   ]

55. (Optional) Please provide any clarifying/additional comments regarding Asset Lifecycle Costs

[   ]

11. Section 2 - Asset master data - **Installation Date**

Note: The date when the asset was installed.

56. Is data collected?

○ Yes

○ No

57. What lifecycle stage is the data collected? (Select all that apply)

☐ Planning & Design

☐ Build/Acquisition/Commission

☐ Operation & Maintenance

☐ Decommission and Disposal

☐ Other (please specify)

[   ]

58. How is the data Collected ?

☐ Tabularized, minimum/no connection to other asset master data

☐ Tabularized, established connections to other asset master data

☐ Scattered, exists throughout one or multiple design/project documents (O&M manuals, as-builts, etc.)

☐ Standalone report/document

☐ N/A – data is not collected

☐ Other (please specify)

[   ]

59. Where is the Primary data/information storage location?

☐ CMMS

☐ GIS

☐ Financial Fixed Registry

☐ ERP

☐ Excel

☐ Other

Specify system name

[   ]

60. Who are the main users of the data and information?

☐ Maintenance

☐ Operations

☐ Capital

☐ Finance

☐ Procurement

☐ Other (please specify)

_____

61. (Optional) Please provide any clarifying/additional comments regarding Installation Date

12. Section 2 - Asset master data - **Estimated End-of-Life Date**

Note: The estimated end-of-life date for the asset.

62. Is data collected?

○ Yes

○ No

63. What lifecycle stage is the data collected? (Select all that apply)

☐ Planning & Design

☐ Build/Acquisition/Commission

☐ Operation & Maintenance

☐ Decommission and Disposal

☐ Other (please specify)

[   ]

64. How is the data Collected ?

☐ Tabularized, minimum/no connection to other asset master data

☐ Tabularized, established connections to other asset master data

☐ Scattered, exists throughout one or multiple design/project documents (O&M manuals, as-builts, etc.)

☐ Standalone report/document

☐ N/A – data is not collected

☐ Other (please specify)

[   ]

65. Where is the Primary data/information storage location?

☐ CMMS

☐ GIS

☐ Financial Fixed Registry

☐ ERP

☐ Excel

☐ Other

Specify system name

[   ]

66. Who are the main users of the data and information?

☐ Maintenance

☐ Operations

☐ Capital

☐ Finance

☐ Procurement

☐ Other (please specify)

[   ]

67. (Optional) Please provide any clarifying/additional comments regarding Estimated End-of-Life Date

[   ]

13. Section 2 - Asset master data - **Asset Maintenance**

Note: The schedule and type of maintenance required for the asset.

68. Is data collected?

○ Yes

○ No

69. What data is typically collected? (Select all that apply):

☐ Schedule

☐ Type of maintenance

☐ Other (please specify)

[   ]

70. What lifecycle stage is the data collected? (Select all that apply)

☐ Planning & Design

☐ Build/Acquisition/Commission

☐ Operation & Maintenance

☐ Decommission and Disposal

71. How is the data Collected ?

☐ Tabularized, minimum/no connection to other asset master data

☐ Tabularized, established connections to other asset master data

☐ Scattered, exists throughout one or multiple design/project documents (O&M manuals, as-builts, etc.)

☐ Standalone report/document

☐ N/A – data is not collected

☐ Other (please specify)

[   ]

72. Where is the data/information stored?

☐ CMMS

☐ GIS

☐ Financial Fixed Registry

☐ ERP

☐ Excel

☐ Other

Specify system name

[   ]

73. Who are the main users of the data and information?

☐ Maintenance

☐ Operations

☐ Capital

☐ Finance

☐ Procurement

☐ Other (please specify)

[   ]

74. (Optional) Please provide any clarifying/additional comments regarding Asset
Maintenance

[   ]

14. Section 2 - Asset master data - **Functional Location**

Note: This data represents the physical or functional location of equipment within a plant or facility.

75. Is data collected?

○ Yes

○ No

76. What data is typically collected? (Select all that apply):

☐ Location ID

☐ Description

☐ Building

☐ Room

☐ Floor

☐ GPS

☐ Coordinates

☐ Other (please specify)

[   ]

77. What lifecycle stage is the data collected? (Select all that apply)

☐ Planning & Design

☐ Build/Acquisition/Commission

☐ Operation & Maintenance

☐ Decommission and Disposal

78. How is the data Collected ?

☐ Tabularized, minimum/no connection to other asset master data

☐ Tabularized, established connections to other asset master data

☐ Scattered, exists throughout one or multiple design/project documents (O&M manuals, as-builts, etc.)

☐ Standalone report/document

☐ N/A – data is not collected

☐ Other (please specify)

[   ]

79. Where is the Primary data/information storage location?

☐ CMMS

☐ GIS

☐ Financial Fixed Registry

☐ ERP

☐ Excel

☐ Other

Specify system name

[   ]

80. Who are the main users of the data and information?

☐ Maintenance

☐ Operations

☐ Capital

☐ Finance

☐ Procurement

81. (Optional) Please provide any clarifying/additional comments regarding Functional Location

[   ]

15. Section 2 - Asset master data - **As Built Drawings**

Note: This data represents the physical or functional location of equipment within a plant or facility.

82. Is data collected?

○ Yes

○ No

83. What data is typically collected? (Select all that apply):

☐ P&ID ID

☐ Mechanical

☐ Electrical

☐ Civil

☐ SCADA Tags

☐ BIM ID

☐ Digital Twin ID

☐ Other (please specify)

[   ]

84. What lifecycle stage is the data collected? (Select all that apply)

☐ Planning & Design

☐ Build/Acquisition/Commission

☐ Operation & Maintenance

☐ Decommission and Disposal

85. How is the data Collected ?

☐ Tabularized, minimum/no connection to other asset master data

☐ Tabularized, established connections to other asset master data

☐ Scattered, exists throughout one or multiple design/project documents (O&M manuals, as-builts, etc.)

☐ Standalone report/document

☐ N/A – data is not collected

☐ Other (please specify)

[   ]

86. Where is the data/information stored?

- ☐ CMMS
- ☐ GIS
- ☐ Financial Fixed Registry
- ☐ ERP
- ☐ Excel
- ☐ Other

Specify system name

[   ]

87. Who are the main users of the data and information?

- ☐ Maintenance
- ☐ Operations
- ☐ Capital
- ☐ Finance
- ☐ Procurement
- ☐ Other (please specify)

  [   ]

88. (Optional) Please provide any clarifying/additional comments regarding As Built Drawings

[   ]

16. Section 2 - Asset master data - **Asset Insurance**

Note: The insurance coverage for the asset, including policy details and premiums.

89. Is data collected?

○ Yes

○ No

90. What data is typically collected? (Select all that apply):

☐ Policy details

☐ Premiums

☐ Other (please specify)

[   ]

91. What lifecycle stage is the data collected? (Select all that apply)

☐ Planning & Design

☐ Build/Acquisition/Commission

☐ Operation & Maintenance

☐ Decommission and Disposal

92. How is the data Collected ?

☐ Tabularized, minimum/no connection to other asset master data

☐ Tabularized, established connections to other asset master data

☐ Scattered, exists throughout one or multiple design/project documents (O&M manuals, as-builts, etc.)

☐ Standalone report/document

☐ N/A – data is not collected

☐ Other (please specify)

[   ]

93. Where is the Primary data/information storage location?

☐ CMMS

☐ GIS

☐ Financial Fixed Registry

☐ ERP

☐ Excel

☐ Other

Specify system name

[   ]

94. Who are the main users of the data and information?

☐ Maintenance

☐ Operations

☐ Capital

☐ Finance

☐ Procurement

☐ Other (please specify)

[   ]

95. (Optional) Please provide any clarifying/additional comments regarding Asset Insurance

[   ]

17. Section 2 - Asset master data - Warranty and Maintenance

Note: Data collected to track warranty and maintenance information for assets with alignment to the term maintenance data.

96. Is data collected?

○ Yes

○ No

97. What data is typically collected? (Select all that apply):

☐ Warranty ID

☐ Warranty Type e.g. project or Product

☐ Asset ID

☐ Start Date

☐ End Date

☐ Terms and Conditions

☐ Maintenance Requirements

☐ Other (please specify)

[   ]

98. What lifecycle stage is the data collected? (Select all that apply)

☐ Planning & Design

☐ Build/Acquisition/Commission

☐ Operation & Maintenance

☐ Decommission and Disposal

99. How is the data Collected ?

☐ Tabularized, minimum/no connection to other asset master data

☐ Tabularized, established connections to other asset master data

☐ Scattered, exists throughout one or multiple design/project documents (O&M manuals, as-builts, etc.)

☐ Standalone report/document

☐ N/A – data is not collected

☐ Other (please specify)

[   ]

100. Where is the Primary data/information storage location?

☐ CMMS

☐ GIS

☐ Financial Fixed Registry

☐ ERP

☐ Excel

☐ Other

Specify system name

[   ]

101. Who are the main users of the data and information?

☐ Maintenance

☐ Operations

☐ Capital

☐ Finance

☐ Procurement

☐ Other (please specify)

[   ]

102. (Optional) Please provide any clarifying/additional comments regarding Warranty and Maintenance

[   ]

18. Section 2 - Asset Master Data - Maintenance Activities e.g. tasks, Intervals, and durations

Note: This data defines the maintenance tasks and intervals for a specific equipment or functional location.

103. Is data collected?

○ Yes

○ No

104. What data is typically collected? (Select all that apply):

☐ Plan ID

☐ Description

☐ Task Type

☐ Task Interval

☐ Resources Required

☐ Other (please specify)

┌─────────────────────────────────┐
│   │
└─────────────────────────────────┘

105. What lifecycle stage is the data collected? (Select all that apply)

☐ Planning & Design

☐ Build/Acquisition/Commission

☐ Operation & Maintenance

☐ Decommission and Disposal

106. How is the data Collected ?

☐ Tabularized, minimum/no connection to other asset master data

☐ Tabularized, established connections to other asset master data

☐ Scattered, exists throughout one or multiple design/project documents (O&M manuals, as-builts, etc.)

☐ Standalone report/document

☐ N/A – data is not collected

☐ Other (please specify)

┌─────────────────────────────────┐
│   │
└─────────────────────────────────┘

107. Where is the Primary data/information storage location?

- ☐ CMMS
- ☐ GIS
- ☐ Financial Fixed Registry
- ☐ ERP
- ☐ Excel
- ☐ Other

Specify system name

[   ]

108. Who are the main users of the data and information?

- ☐ Maintenance
- ☐ Operations
- ☐ Capital
- ☐ Finance
- ☐ Procurement
- ☐ Other (please specify)

[   ]

109. (Optional) Please provide any clarifying/additional comments regarding Maintenance Activities

[   ]

19. Section 2 - Asset Master Data - **Maintenance Strategy**

Note: This data determines the overall approach for maintaining an equipment or functional location.

110. Is data collected?

- ◯ Yes

- ◯ No

111. What data is typically collected? (Select all that apply):

- ☐ Strategy ID

- ☐ Description

- ☐ Task Types

- ☐ Task Intervals

- ☐ Resources Required

- ☐ Other (please specify)

  [   ]

112. What lifecycle stage is the data collected? (Select all that apply)

- ☐ Planning & Design

- ☐ Build/Acquisition/Commission

- ☐ Operation & Maintenance

- ☐ Decommission and Disposal

113. How is the data Collected ?

- ☐ Tabularized, minimum/no connection to other asset master data

- ☐ Tabularized, established connections to other asset master data

- ☐ Scattered, exists throughout one or multiple design/project documents (O&M manuals, as-builts, etc.)

- ☐ Standalone report/document

- ☐ N/A – data is not collected

- ☐ Other (please specify)

  [   ]

114. Where is the Primary data/information storage location?

- ☐ CMMS
- ☐ GIS
- ☐ Financial Fixed Registry
- ☐ ERP
- ☐ Excel
- ☐ Other

Specify system name

[ ]

115. Who are the main users of the data and information?

- ☐ Maintenance
- ☐ Operations
- ☐ Capital
- ☐ Finance
- ☐ Procurement
- ☐ Other (please specify)

[ ]

116. (Optional) Please provide any clarifying/additional comments regarding Maintenance Strategy

[ ]

20. Section 2 - Asset Master Data - Maintenance Work - Maintenance Notification / Work Order

Note: This data documents and tracks the execution of a maintenance plan or task.

117. Is data collected?

○ Yes

○ No

118. What data is typically collected? (Select all that apply):

☐ Work Order ID

☐ Description, Asset ID

☐ Maintenance Plan ID

☐ Required Labour Hrs

☐ Required Material e.g. Parts, Tools and Equipment

☐ Required safety procedures and devices

☐ Estimated job duration

☐ Estimated job Cost

☐ Specified schedule - e.g. start date and timeframe to complete

☐ Assigned Trade names

☐ Technical feedback e.g. diagnostics and work completed summary

☐ Actual time consumed to complete work

☐ Actual Costs consumed to complete work

☐ Job Types for both proactive and reactive work

☐ Other (please specify)

119. What lifecycle stage is the data collected? (Select all that apply)

☐ Planning & Design

☐ Build/Acquisition/Commission

☐ Operation & Maintenance

☐ Decommission and Disposal

120. How is the data Collected ?

☐ Tabularized, minimum/no connection to other asset master data

☐ Tabularized, established connections to other asset master data

☐ Scattered, exists throughout one or multiple design/project documents (O&M manuals, as-builts, etc.)

☐ Standalone report/document

☐ N/A – data is not collected

☐ Other (please specify)

[   ]

121. Where is the data/information stored?

☐ CMMS

☐ GIS

☐ Financial Fixed Registry

☐ ERP

☐ Excel

☐ Other

Specify system name

[   ]

122. Who are the main users of the data and information?

☐ Maintenance

☐ Operations

☐ Capital

☐ Finance

☐ Procurement

☐ Other (please specify)

[   ]

123. (Optional) Please provide any clarifying/additional comments regarding Maintenance Work

[   ]

21. Section 2 - Asset Master Data - Maintenance Resource

Note: This data represents the human or technical resources needed to perform maintenance tasks.

124. Is data collected?

○ Yes

○ No

125. What data is typically collected? (Select all that apply):

☐ Resource ID

☐ Type

☐ Name

☐ Skills

☐ Training Certification

☐ Trade Licenses - Certificates of qualification

☐ Academic Designations

☐ Contact Information

☐ Pay bands - Rates

☐ Other (please specify)

[   ]

126. What lifecycle stage is the data collected? (Select all that apply)

☐ Planning & Design

☐ Build/Acquisition/Commission

☐ Operation & Maintenance

☐ Decommission and Disposal

127. How is the data Collected ?

☐ Tabularized, minimum/no connection to other asset master data

☐ Tabularized, established connections to other asset master data

☐ Scattered, exists throughout one or multiple design/project documents (O&M manuals, as-builts, etc.)

☐ Standalone report/document

☐ N/A – data is not collected

☐ Other (please specify)

[   ]

128. Where is the Primary data/information storage location?

☐ CMMS

☐ GIS

☐ Financial Fixed Registry

☐ ERP

☐ Excel

☐ Other

Specify system name

[   ]

129. Who are the main users of the data and information?

☐ Maintenance

☐ Operations

☐ Capital

☐ Finance

☐ Procurement

☐ Other (please specify)

[   ]

130. (Optional) Please provide any clarifying/additional comments regarding Maintenance Resource

[   ]

22. Section 2 - Asset Master Data - **Asset Failure Analysis - Asset failure cause, type and root cause**

Note: This data provides work order failure cause analysis for reactive job types.

131. Is data collected?

○ Yes

○ No

132. What data is typically collected? (Select all that apply):

☐ Failure Mode ID,

☐ Component failed

☐ Failure cause

☐ Failure type e.g elec,mech etc.

☐ Rootcasue

☐ Other (please specify)

[   ]

133. What lifecycle stage is the data collected? (Select all that apply)

☐ Planning & Design

☐ Build/Acquisition/Commission

☐ Operation & Maintenance

☐ Decommission and Disposal

134. How is the data Collected ?

☐ Tabularized, minimum/no connection to other asset master data

☐ Tabularized, established connections to other asset master data

☐ Scattered, exists throughout one or multiple design/project documents (O&M manuals, as-builts, etc.)

☐ Standalone report/document

☐ N/A – data is not collected

☐ Other (please specify)

[   ]

135. Where is the Primary data/information storage location?

☐ CMMS

☐ GIS

☐ Financial Fixed Registry

☐ ERP

☐ Excel

☐ Other

Specify system name

[   ]

136. Who are the main users of the data and information?

☐ Maintenance

☐ Operations

☐ Capital

☐ Finance

☐ Procurement

☐ Other (please specify)

[   ]

137. (Optional) Please provide any clarifying/additional comments regarding Asset Failure Analysis

[   ]

23. Section 2 - Asset Master Data - **PSAB Federal Financial Reporting**

Accounting standards are authoritative standards for financial accounting and reporting

138. Is data collected as part of Asset Management requirements or separately by the Finance Department?

☐ Asset Management

☐ Finance

☐ Other (please specify)

_____

139. What data is typically collected? (Select all that apply):

☐ Asset Retirement Obligation

☐ Book Value

☐ PSAB

☐ TCA

☐ Fair Value

☐ Accumulated Amortization

☐ Amortization Expense

☐ Operational

☐ Maintenance

☐ Net Financial Assets (Net Debt)

☐ Cash Flows

☐ Other (please specify)

_____

140. What lifecycle stage is the data collected? (Select all that apply)

☐ Planning & Design

☐ Build/Acquisition/Commission

☐ Operation & Maintenance

☐ Decommission and Disposal

141. How is the data Collected ?

☐ Tabularized, minimum/no connection to other asset master data

☐ Tabularized, established connections to other asset master data

☐ Scattered, exists throughout one or multiple design/project documents (O&M manuals, as-builts, etc.)

☐ Standalone report/document

☐ N/A – data is not collected

☐ Other (please specify)

[   ]

142. Where is the Primary data/information storage location?

☐ CMMS

☐ GIS

☐ Financial Fixed Registry

☐ ERP

☐ Excel

☐ Other:

Specify system name

[   ]

143. Who are the main users of the data and information?

☐ Maintenance

☐ Operations

☐ Capital

☐ Finance

☐ Procurement

☐ Other (please specify)

[   ]

144. (Optional) Please provide any clarifying/additional comments regarding PSAB Federal Financial Reporting

[   ]

24. Section 2 - Asset Master Data - Asset Performance - **Functional Design Performance Standards**

Note: Data collected to determine asset condition ratings based on functional performance versus Design.

145. Is data collected?

◯ Yes

◯ No

146. What data is typically collected? (Select all that apply):

☐ Performance ID

☐ Description

☐ Measurement Criteria

☐ Thresholds

☐ Condition Ratings

☐ Other (please specify)

[   ]

147. What lifecycle stage is the data collected? (Select all that apply)

☐ Planning & Design

☐ Build/Acquisition/Commission

☐ Operation & Maintenance

☐ Decommission and Disposal

148. How is the data Collected ?

☐ Tabularized, minimum/no connection to other asset master data

☐ Tabularized, established connections to other asset master data

☐ Scattered, exists throughout one or multiple design/project documents (O&M manuals, as-builts, etc.)

☐ Standalone report/document

☐ N/A – data is not collected

☐ Other (please specify)

[   ]

149. Where is the Primary data/information storage location?

☐ CMMS

☐ GIS

☐ Financial Fixed Registry

☐ ERP

☐ Excel

☐ Other

Specify system name

[   ]

150. Who are the main users of the data and information?

☐ Maintenance

☐ Operations

☐ Capital

☐ Finance

☐ Procurement

☐ Other (please specify)

[   ]

151. (Optional) Please provide any clarifying/additional comments regarding Asset
Performance

[   ]

25. Section 2 - Asset Master Data - **O&M Manuals**

Note: Data collected to maintain and update manuals for operating and maintaining assets.

152. Is data collected?

○ Yes

○ No

153. What data is typically collected? (Select all that apply):

☐ Manual ID

☐ Asset ID

☐ Description

☐ Version

☐ Author

☐ Publishing Date

☐ Contents

☐ Other (please specify)

[   ]

154. What lifecycle stage is the data collected? (Select all that apply)

☐ Planning & Design

☐ Build/Acquisition/Commission

☐ Operation & Maintenance

☐ Decommission and Disposal

155. How is the data Collected ?

☐ Tabularized, minimum/no connection to other asset master data

☐ Tabularized, established connections to other asset master data

☐ Scattered, exists throughout one or multiple design/project documents (O&M manuals, as-builts, etc.)

☐ Standalone report/document

☐ N/A – data is not collected

☐ Other (please specify)

[   ]

156. Where is the Primary data/information storage location?

☐ CMMS

☐ GIS

☐ Financial Fixed Registry

☐ ERP

☐ Excel

☐ Other:

Specify system name

[   ]

157. Who are the main users of the data and information?

☐ Maintenance

☐ Operations

☐ Capital

☐ Finance

☐ Procurement

☐ Other (please specify)

[   ]

158. (Optional) Please provide any clarifying/additional comments regarding O&M Manuals

[   ]

26. Section 2 - Asset Master Data - **Financial Data, Asset GL, CC Codes and Work Order Settlement Rules**

Note: Data collected to track financial information related to assets such as GL codes, CC codes, and work order settlement rules.

159. Is data collected?

○ Yes

○ No

160. What data is typically collected? (Select all that apply):

☐ Asset General Ledger Code

☐ Cost Center Codes

☐ Work order settlement to asset rules

☐ Material and Labour Budget data

☐ Other (please specify)

[   ]

161. What lifecycle stage is the data collected? (Select all that apply)

☐ Planning & Design

☐ Build/Acquisition/Commission

☐ Operation & Maintenance

☐ Decommission and Disposal

162. How is the data Collected ?

☐ Tabularized, minimum/no connection to other asset master data

☐ Tabularized, established connections to other asset master data

☐ Scattered, exists throughout one or multiple design/project documents (O&M manuals, as-builts, etc.)

☐ Standalone report/document

☐ N/A – data is not collected

☐ Other (please specify)

[   ]

163. Where is the Primary data/information storage location?

- ☐ CMMS
- ☐ GIS
- ☐ Financial Fixed Registry
- ☐ ERP
- ☐ Excel
- ☐ Other

Specify system name

[   ]

164. Who are the main users of the data and information? (Select all that apply)

- ○ Maintenance
- ○ Operations
- ○ Capital
- ○ Finance
- ○ Procurement
- ○ Other (please specify)

[   ]

165. (Optional) Please provide any clarifying/additional comments regarding Financial Data

[   ]

27. Section 3 - AM System - **Analysis**

166. Does your organization perform asset data analysis?

☐ Yes, data analysis helps determine asset conditions and prioritization

☐ No, the organization works with limited asset data information and analysis, primarily used for operation and maintenance

☐ Yes, data analysis helps determine current Levels of Service

☐ Yes, data analysis combines different data inputs to determine proposed Levels of Service

☐ Yes data analysis helps to determine our risk levels such as with climate change, environmental, downtime, cost and other risks

☐ I am not sure

167. What tools are used by your organization to manage assets and data? (Select all that applies)

☐ GIS

☐ IBM Maximo

☐ Cityworks

☐ Infor Hansen

☐ Riva/PowerPlan

☐ Excel

☐ Microsoft Access

☐ Oracle Enterprise Asset Management

☐ InfraModex

☐ SAP PM

☐ PSD City Wide

☐ I am not sure.

☐ Other

Specify system name

[   ]

168. What is the primary asset management source of information for planning and decision-making in your organization?

○ There is no tool or source of information in place to manage assets

○ GIS or other software that aggregates data

○ Asset Management Plan

○ Asset Management Plan aligned with the asset investment plan

○ I am not sure

○ Other (please specify)

[   ]

169. Is the asset's level of service (LoS) specified in your Asset Management Plan? Note: Level of Service: outline the overall quality, function, capacity and safety of the service being provided and represent the minimum condition that assets should be maintained at during their lifecycle. (based on SUMA and Richmond Hill Asset Management Plan)

○ No, the plan does not state the level of service

○ No, but we are planning to add the level of service

○ Yes, the plan states the level of service according to regulatory requirements

○ Yes, the plan states the level of service according to regulatory and technical requirements

○ Does not apply

○ I am not sure

170. What aspects of climate change are considered by your organization in Asset Management Planning? (Select all that applies)

○ Climate change was not considered in Asset Management Planning

○ Climate change is considered in our policy; however, it is not clear how to put that into action

○ Anticipated costs

○ Mitigation and adaptation approaches

○ Risk and disaster planning

○ None of the above

○ I am not sure

○ Other (please specify)

[   ]

171. (Optional) Please provide any clarifying/additional comments regarding Asset Management System (AMS) Analysis

[   ]

28. Section 3 - Asset Management System - **Leadership, Planning and Tactical Execution**

172. Does your organization have an asset management team?Note: Asset management team: A group of representatives from different departments who conduct AM duties.

○ No

○ Not yet, but we have the intention or are in the process of establishing one

○ Yes, it was created less than 2 years ago

○ Yes, it was created more than 2 years ago

○ Does not apply

○ I am not sure

173. Has your organization established an Asset Management System?Asset Management System: a set of interrelated and interacting elements of an organization, which has the function of establishing the Asset Management Policy and asset management objectives, and the processes needed to achieve those objectives. Definition by ISO 55000.

○ No

○ No, but we are planning to establish an Asset Management System

○ Yes, we have set up the elements and processes required for an Asset Management System

○ Yes, we have established an Asset Management System and are measuring and monitoring its progress over time

○ I am not sure

174. Does your organization have an Asset Management Plan?Asset Management Plan: a strategic document that states how a group of assets is tbe managed over a period of time. The plan describes the characteristics and condition of infrastructure assets, the Levels of Service expected from them, planned actions to ensure that the assets provide the expected level of service, and financing strategies to implement the planned actions. (Building Together - Guide for Municipal Asset Management Plans)

○ No

○ No, but we are planning to develop an Asset Management Plan

○ Yes, but the plan is not considered in the decision-making process

○ Yes, and sometimes decisions are based on the plan

○ Yes, and the plan is fully integrated with the organization's decision-making processes

○ I am not sure

175. Does your organization have a process to monitor the implementation of your Asset Management Plan?Asset Management Plan implementation: Planning and implementation of the Asset Management Plan's recommended actions, which are necessary to the advancement of asset management in the organization.

○ No

○ No, but we are planning to establish a process to monitor the plan implementation

○ Yes, our organization monitors the plan implementation through an established process

○ Yes, plan implementation is overseen by the organization and the council through an established process

○ Does not apply

○ I am not sure

176. Has your organization completed an asset management maturity/readiness assessment? (Select all that applies) The asset management maturity/readiness tool places the organization on a maturity/readiness scale through structured questions based on a specific framework or regulatory requirements
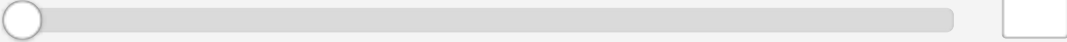
○ Not done

○ Not done, but we are planning to perform a readiness assessment

○ Yes, using an internal/alternative framework

○ Yes, using FCM's asset management framework

○ Yes, using an ISO 55000-based framework

○ Yes, using a PAS55-based framework

○ Yes, using another industry-based framework

○ I am not sure

○ Other (please specify)

[   ]

177. Does your organization have asset data inventory? Limited: some attributes (e.g. ID, age) for critical assets. Basic: some attributes for all assets. Adequate: sufficient attributes for all assets. Comprehensive: sufficient attributes for all assets linked to performance information (e.g. the number of breaks).

○ No, the organization does not have an asset data inventory

○ Yes, the organization works with limited asset data information

○ Yes, the organization works with basic asset data information

○ Yes, the organization works with adequate asset data information

○ Yes, the organization works with comprehensive asset data information

○ I am not sure

178. What percentage of Work (Estimated) executed by Maintenance Trades is captured in one system to enable analysis of proactive and reactive cost, time and frequency ?

0   100

179. Does your Organization have a Reliability Engineering structure and team of staff ?

☐ Yes

☐ No

☐ Planned for the future

☐ Not Planned or Anticipated in the Future

☐ Other (please specify)

[   ]

180. Does your Organization have a dedicated Maintenance Management structure and team of staff ?

○ Yes

○ No

○ Planned for the Future

○ Not planned or Anticipated

181. Does your Asset Management Policy, Include a section related to Maintenance Management ?

○ Yes

○ No

182. When Procuring Assets, are all future lifecycle costs considered when making awards ? e.g. looking beyond current costs to procure and install when awarding contracts.

○ Yes

○ No

○ Other (please specify)

[   ]

183. Does Finance provision budget for Maintenance and repair of Installed assets as part of the new development capital planning process ?

○ Yes

○ No

○ Other (please specify)

[   ]

184. Is Maintenance Planning a full time resourced function with formal processes so work can be "made ready for scheduling" far enough in advance to enable regular measurement of compliance and trade team efficiency?

○ Yes

○ No

○ Other (please specify)

[   ]

185. To what extent is excellence in Maintenance Management or Reliability Engineering supported by Municipal regulations in Canada ?

☐ Extremely clear   ☐ Not so clear

☐ Very clear   ☐ Not at all clear

☐ Somewhat clear

Please provide insights into your Selection logic and reference regulations if known

[   ]

186. (Optional) Please provide any additional/clarifying comments on Leadership, Planning, and Technical Execution.

[   ]

29. Thank you for participating in the survey.

187. If you would like to receive more information about this project including the whitepaper and details about the courses complete the information below. (Note that all survey results will only be reported in aggregate. This contact information will be kept separate and confidential).

Name (First, Last)

Municipality

City/Town

State/Province

Email Address

Phone Number

You have come to the end of the survey. Thank you for your submission. Your insights are very valuable and we appreciate the time you have taken to complete the survey.

If you have partially completed the survey and/or wish to edit your responses so far, you can select "done" below to submit your survey and follow the same survey link anytime to edit and/or complete your responses. Survey responses should be received by Friday, June 30 to be included in the initial results. We ask that you complete your responses by that time. The survey will remain open for late responses, however.

Please select "Done" to save/submit your responses.

Thank you for your participation.