



# Asset Management and the AIMnet Solution

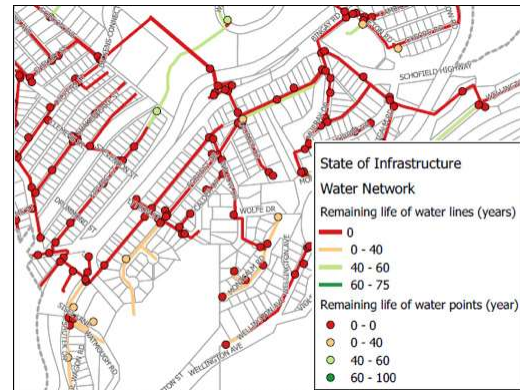
Municipalities typically own and manage many infrastructure assets which their citizens rely on to provide essential services. Municipalities rely on good data and information to make informed decisions about the services you provide, how they are funded and planning for infrastructure renewal and replacement

**AIM Network** is the asset management community of practice for Atlantic Canada. AIM is an incorporated not-for-profit organization. Its mandate is to support, guide and advance the practice of municipal asset management. Our approach is to help municipalities grow asset management knowledge and practice through staff engagement. We support and facilitate the development of easy-to-use, cost-effective software and methodologies appropriate for smaller communities or those getting started on their asset management journey. The software and methodologies are referred to as the AIMnet Solution.

The **AIMnet Solution** is a system of integrated computer software developed specifically to meet the asset management planning needs of smaller communities faced with limited funding and in-house resources. AIMnet has been developed using the free open-source QGIS software as its base. It is integrated with data storage and analytical tools developed using MS-Excel spreadsheets.

### To get you started with asset management, the AIMnet Solution will assist in:

- Building an inventory of linear infrastructure including water, sanitary, storm and road networks.
- Producing hard-copy maps.
- Providing the municipality with a functional GIS for viewing its infrastructure on a desktop computer.
- Providing an easy-to-use view and query interface & web-mobile component to facilitate updating data in the field.
- Preparing Preliminary State of Infrastructure Reports.



### Preparing an Inventory of your Infrastructure:

It begins with collecting key data about your infrastructure such as what you own; where is it; what is it made of; what condition is it in; what is it worth etc.). This attribute data is available for viewing both on maps and in a spreadsheet.

### Displaying your Infrastructure on Maps:

The AIMnet Solution uses QGIS mapping to display your infrastructure over a base map of your community showing where such assets are located in relation to legal boundaries.

Thematic maps are used to highlight infrastructure that may need attention based on age or some basic condition criteria. The QGIS software component is compatible with other GIS software such as ESRI. These up-to-date hard-copy maps can be produced and made available to all municipal staff and can also be viewed on a computer.

### State of Infrastructure Reports:

Preliminary State of Infrastructure Reports are then generated for each asset group through Excel spreadsheets. The reports generated include a spreadsheet-based summary with tables and graphs that can include:

- Replacement Cost
- Current Condition rating
- Life expectancy
- Estimated Annual Renewal/Replacement Cost Calculations (by Asset Type)

### A) Total Replacement Cost of Water Network

Table 2a: Total Replacement Cost of Water Network

Water Asset	Replacement Cost	Relative Cost
End Cap	\$9,800	0.2%
Connection	\$121,688	2.0%
Hydrant	\$600,000	9.8%
Main	\$4,959,303	81.0%
PR Station	\$24,000	0.4%
Valve	\$408,000	6.7%
<b>Grand Total</b>	<b>\$6,122,791</b>	<b>100.0%</b>

The Preliminary State of Infrastructure Reports provide decision makers with a snapshot of the general condition of their infrastructure, life expectancy and replacement costs. It enables you to identify infrastructure requiring further consideration and to start identifying priorities as to which assets receive maintenance, repair and replacement funding.

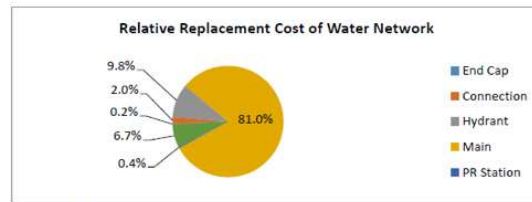


Figure 2a: Relative Replacement Cost of Water Network

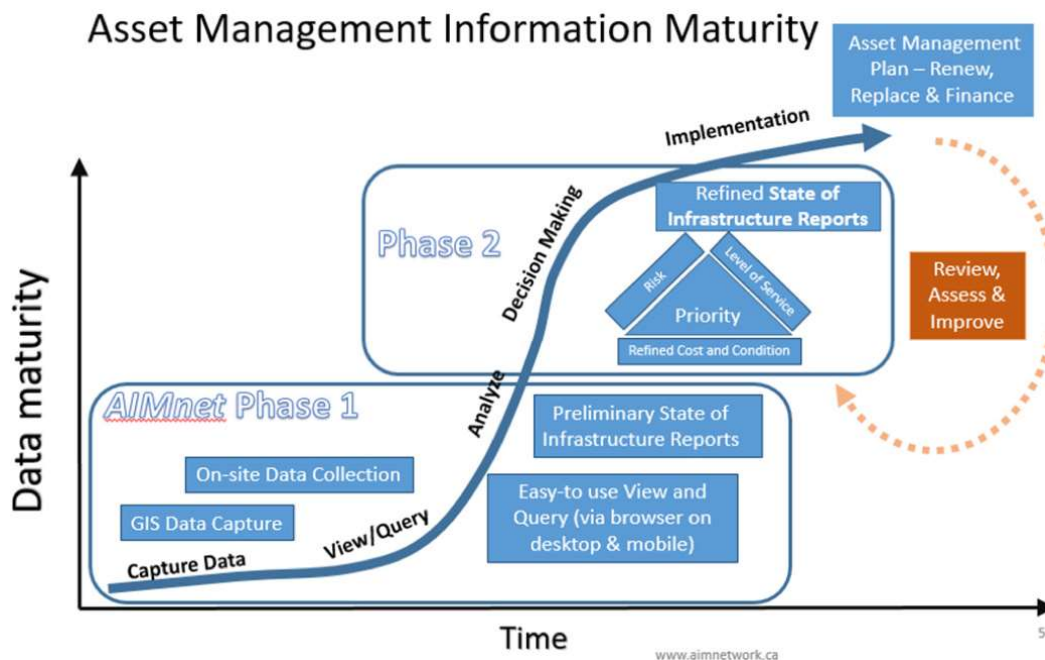
### Communicating with Taxpayers and Government about Infrastructure:

The infrastructure inventory data, maps and reports generated through the **AIMnet** Solution provide municipal officials with information that is very useful in presenting and communicating their analysis, priorities and decisions to their citizens and senior government. It also prepares them with readily-available information to support funding applications.

### Using your Information:

Municipalities that want to integrate good asset management practices must know how to use these simple tools to maintain their data so up-to-date maps and reports can be generated. As such, AIM Network facilitates training and support for municipal staff using the **AIMnet** Solution.

Municipalities also need to understand what asset management is and how it will benefit their municipality. AIM Network also provides asset management training to help municipalities build their capacity for integrating asset management practices such as policy development, risk assessment, setting priorities, setting service levels, etc. along with general awareness for staff and elected officials on asset management.



### Free open source software:

The **AIMnet** toolkit is a free, open source solution that is developed by the asset management and software community. Our technical committee facilitates improving the existing tools as well as the development of new tools and methods. This AIM Network technical committee is comprised of asset management experts in the private and public sector. No licensing fees for use of the software is required.

**For more information, visit our website at [www.aimnetwork.ca](http://www.aimnetwork.ca), email: [info@aimnetwork.ca](mailto:info@aimnetwork.ca), or call Daisy Foster, Managing Director (902) 412-3328.**