# RM of Riding Mountain West

Asset Management Plan

**Version** 1.0

**Date** June 13th, 2022

# Table Of Contents

# Table of Figures



# Table of Tables

# Summary

This Asset Management Plan intends to advise the RM of Riding Mountain West toward achieving its municipal objectives through asset management.

The methodology of this plan is based on best practices available to the RM, from sources such as MuniSight Ltd., the Federation of Canadian Municipalities (FCM), and interviews with select municipal staff. Infrastructure was sorted into various asset classes and evaluated against asset registry, condition, level of service, and risk considerations. Inventory lists were generated based on the data from the RM of Riding Mountain West's MuniSight Webmap software and through interviews of municipal staff.

Although this plan was developed to be as robust as possible, it was limited by a series of assumptions. With historical figures being used to predict future behavior, any major changes to economic, social, political, or environmental considerations will impact the validity of this report.

This report concludes that the RM of Riding Mountain West is in the early stages of establishing an effective Asset Management Program. Riding Mountain West has developed a basic asset inventory of most of its important assets. However, more information is required to determine the overall condition, level of service, replacement cost, and risk of the asset network. Currently, there is insufficient information to make conclusions about the overall state of infrastructure assets. Developing a robust asset management process can take place in stages, over many years, and the RM has made significant progress in developing this asset management program. It is recommended the RM continue to develop asset management capabilities in their people, processes, and data systems. Several key recommendations are highlighted in this report to help the RM focus on the actions with the highest positive potential impact.

# Introduction

## Intent

The Asset Management Plan intends to provide a 10,000 ft view of the life cycle activities that a municipality must execute to achieve the desired level of service goals as detailed in their Asset Management Strategy. The Asset Management Plan should provide information on what assets a municipality possesses, their condition, current-day replacement cost, and impact if failed.

An Asset Management Plan plays a specific role in a municipality's practice of asset management, and is therefore organized in a fashion that answers five questions:

1. Asset Inventory - What are the assets, and where are they?
2. State of Infrastructure - What condition are the assets in?
3. Level of Service - What level of service do the assets deliver? Is there any level of service deficiencies?
4. Risk - What is the impact of these assets failing?
5. Financial – How much would the assets cost to replace?

## Strategic Alignment

This Asset Management Plan utilizes information from the following documents:

- Asset Management Policy
- Asset Management Strategy
- Interviews with select municipal staff

# Methodology

## Introduction to Asset Classes

To simplify and summarize the results of data in Webmap, asset classes are used to group and aggregate asset information. In this report, the following asset classes are presented:

| | | |
|---|---|---|
| **Road Network** | - | Paved roads, gravel roads, street signs, bridges, etc. |
| **Bridges & Culverts** | - | Municipal Bridges, Culverts, etc. |
| **Water Network** | - | Valves, waterlines, hydrants, etc. |
| **Sanitary Sewer Network** | - | Valves, sanitary lines, manholes, etc. |
| **Storm Sewer Network** | - | Culverts, storm lines, inlets, etc. |
| **Buildings** | - | Offices, public works shops, etc. |
| **Fleet and Equipment** | - | Vehicles, tractors, trailers, etc. |

## Asset Inventory

A first step in gaining perspective on a municipality's asset management information is to understand what assets it owns and where those assets are located. A list of assets that a municipality maintains is typically referred to as an Asset Inventory (or Asset Register/Registry). Once the Asset Inventory is completed, the common practice is to locate them in the field using surveyors and then to reference the location of the listed assets in a GIS system.

Aside from identifying and locating assets, it is important to collect specific attribute information such as defining characteristics (material of construction, date of construction, etc.) which can be used to infer remaining useful life and replacement costs.

## State of Infrastructure

As assets are utilized and exposed to the environmental elements, they deteriorate over time and need to be replaced. If an asset's condition deteriorates enough, it will eventually be unable to provide its intended service (i.e., a washed-out road). For this reason, it is important to identify assets that are progressing towards failure, so they can be proactively replaced or maintained. Monitoring asset condition in a pro-active manner can lead to lower overall lifecycle costs as asset repairs can take place before further deterioration increases the overall cost. Asset repairs are often less disruptive to ratepayers and are less costly to undertake, than a total replacement of a failed asset. Figure 1 is an example of a typical asset deterioration curve and associated incremental maintenance/replacement costs. Maintaining a database with current asset conditions contributes to lower overall capital costs and asset downtime.

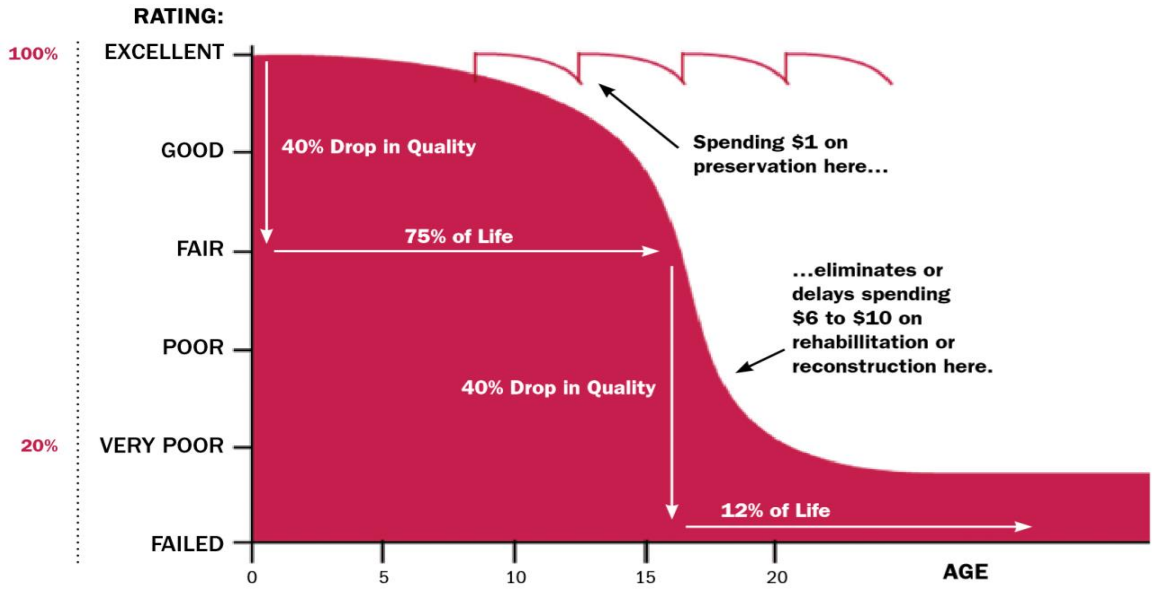


**Figure 1: Example of Deterioration Curve From 2019 Canadian Infrastructure Report Card (ACEC, CCA, CPRA, CPWA, CSCE, CUTA, CNAM, FCM, 2019)**

An asset Risk Assessment should be completed for any critical assets, assets that have failed or are close to failure. These Risk Assessments aim to measure the impact of asset failure, relative to the likelihood of the asset failing.

## Level of Service

Assessing an asset's Level of Service (LOS) is a critical component of a sound Asset Management Plan, and is one of the three cornerstones of an Asset Management Plan, along with relative Condition Assessments, and asset Risk Assessments.

The goal of the LOS Assessment should be for a municipality to identify if an asset is delivering on its intended benefit. A good assessment of an asset's Level of Service lets a municipality know if an asset needs to be upgraded or modified, based on what the asset's users are expecting from the asset.

Understanding service means having a clear and consistent understanding of:

1. The types of services you provide.
2. The groups of residents, businesses, and institutions that you provide services to.
3. The level of service being delivered currently (your performance); and
4. The level of service you're aiming to provide (your target).

An asset's LOS is a measurement of its ability to deliver the desired benefits to the users of the asset. For example, a properly designed road must be able to transport enough vehicles to prevent traffic and inconvenience to stakeholders, while also being in good enough condition to provide a comfortable ride. There are three main types of Level of Service:

- Technical - requirements dictated by the technical design requirements of the asset
- Legislated - requirements dictated by various levels of government (i.e., Federal/ State/ Provincial/ Municipal)
- Customer - requirements dictated by the stakeholder utilizing the asset

A proper LOS assessment will incorporate criteria from each of the three categories to ensure that an asset is meeting service performance.

A level of service deficiency is identified when the desired level of service does not match the actual level of service being produced by the asset. Part of Asset Management Planning is identifying these deficient assets so that they can be considered for an upgrade, repair, or replacement.

To ensure proper LOS assessments, it is important to consider the following:

- Be consistent within asset type - make sure that each asset, within a specific type, is judged against the same LOS criteria
- Keep it simple - Make a LOS assessment fit for purpose, and do not over complicate it with a vague, or large, set of criteria
- Keep your customer in mind - Understanding the end customer who receives service from an asset is important when deciding which criteria to use when evaluating the Level of Service.

## Risk

An asset Risk Assessment helps municipal administrators understand if a failed asset possesses the potential to impact the municipality negatively. Once the risks are known, a municipality can decide whether to invest in mitigating them.

Risk assessments are an assessment of potential events that could result in consequences associated with an asset. The risk score is a function of a consequence's impact and likelihood:

- Impact - what is the magnitude of a consequence's influence?
- Likelihood - what is the probability that this consequence will occur?

An assessment of asset risk depends on:

- Properly evaluating the potential events associated with an asset - what events could create unintended consequences? (e.g., an improperly maintained gravel road)
- Properly evaluating the potential consequences associated with an event - what consequences could arise as a result of events? (e.g., vehicle damage due to improperly maintained gravel roads)
- Properly assessing the impact and likelihood of a potential consequence.

A commonly used model to evaluate the different considerations of risk consequences is in the form of the PEARS model:

- People - what is the potential for a consequence to harm people?
- Environment - could this negatively impact the environment?
- Assets - what is the potential for municipal assets to be damaged?
- Reputation - what effect could this consequence have on our municipality's reputation at the local, provincial/state, and national level?
- Service - could this consequence negatively affect an assets' ability to deliver on the designed service?

When evaluating a potential consequence, it is important to consider whether the consequence could affect people, the environment, other assets, the municipality's reputation, or the asset's ability to deliver service.

## Financial

Replacement cost is used to represent the current-day value of a particular asset and is a representation of the full costs to replace the asset. This includes engineering, planning, materials, labour, administration costs, etc. Although it is a rough estimate of the true cost of replacing the asset, it is a good proxy to utilize when considering financial implications between asset investment options.

For asset management planning, actual cost figures can be used, or costing algorithms can be developed and applied to an asset class to represent replacement value. Note that financial figures in an Asset Management Plan should not be used for operational budgeting purposes, as they are often too abstract.

# Limitations and Assumptions

Although comprehensive, this Asset Management Plan does have limitations that must be highlighted, namely:

## Future Predictions Are Based On Historical Information

A fundamental assumption in this report is that the past is the best predictor of the future. The report uses historical information, such as replacement costs, to predict the future costs considering inflationary effects. Major economic, social, political, or environmental changes will degrade the relevance of historical information in predicting the future, thus rendering the findings of this report less accurate.

## A View Of A Point In Time

This report represents a snapshot in time. It is representative of the current state-of-affairs at the time of writing and will become dated with changes to municipal priorities and asset characteristics.

## Capital Expenditures

The Asset Management Plan only considers capital expenditures (CAPEX) when evaluating financial implications and does not consider operational expenses.

# Data Completeness and Quality

The RM of Riding Mountain West maintains an asset management software system to house most of its municipal asset information. The completeness and quality of the data were evaluated as part of this Asset Management Plan, where:

- Complete dataset: a dataset that includes 100% of the physical assets in the RM's authority.
- Quality dataset: a dataset that is error-free and contains all the necessary information.

| RM of Riding Mountain West | | Road Network | Water Network | Sanitary Network | Storm Network | Fleet and Equipment | Buildings |
|---|---|---|---|---|---|---|---|
| **Asset Inventory** | Complete | B | E | E | E | E | D |
| | Quality | D | E | E | E | E | D |
| **Asset Condition** | Complete | E | E | E | E | E | E |
| | Quality | E | E | E | E | E | E |
| **Level of Service** | Complete | E | E | E | E | E | E |
| | Quality | E | E | E | E | E | E |
| **Asset Risk** | Complete | E | E | E | E | E | E |
| | Quality | E | E | E | E | E | E |
| **Replacement Cost** | Complete | E | E | E | E | E | E |
| | Quality | E | E | E | E | E | E |

**Table 1: Overall Data Quality and Completeness Chart**

Striving for an A-grade in each category is a very long-term goal. Collecting asset information is a continuous process that involves time, money, and planning. A municipality will never have a fully complete inventory of its assets, due to the practical complexity of reaching such a goal. It is reasonable to expect that municipalities should focus on building accurate and complete inventories for their most valuable and critical assets first, followed by less important asset categories. In practice, this means prioritizing different classes of assets. For example, a municipality may decide that understanding road asset information is more important than water hydrant asset information, which would prompt them to focus on building a complete road network asset inventory before even beginning to build an inventory of hydrant information.

The RM of Riding Mountain West is not able to perform in-depth analysis on asset management infrastructure investment decisions with its current asset information. This report recommends that the RM of Riding Mountain West focus on collecting missing asset information and data on the condition, level of service, risk, and replacement cost. A breakdown of the data collected can be found in the Asset Category Summary section below.

# Asset Category Summary

## Roads

The RM of Riding Mountain West owns and manages a road network for the transportation of people and goods throughout the RM. The table below is a summary of the road network inventory that is stored within the Webmap software:

| Asset Name | (Units) | Count |
|---|---|---|
| Gravel | (km) | 650.2 |
| Paved | (km) | 248.4 |
| Total | (km) | 898.6 |

**Table 2: Road Network Inventory**

Riding Mountain West has successfully centralized a significant level of road asset data including street type, name, class, ownership, and surface type. It is recommended that the RM define the level of service required for their road network and start to collect the condition for these road assets. The table below is a breakdown of data completeness for the road network assets. Determining the install date, expected useful life, and estimated replacement cost would be required to build an asset replacement forecast.

| Asset Name | Attribute | Data Completeness |
|---|---|---|
| Roads | Road Class | 99.7% |
| | Road Width | 0% |
| | Install Date | 0% |
| | Expected Useful life | 0% |

**Table 3: Road Network Data Completeness**

Refer to the “Introduction to Asset Management” (Association of Manitoba Municipalities, 2018) for templates and suggestions for completing the necessary assessments. If the RM has engineering firms periodically complete inspections on their road infrastructure, it is recommended that this data be standardized and stored within a centralized database for future asset management planning purposes.

## Water Network

The RM of Riding Mountain West owns and maintains a water network to provide potable water to residents. Currently, no water network information is stored in Munisight's Webmap software.

The inclusion of the water mains is a significant first step in data collection; this should be the main focus when collecting and consolidating data to build a basic asset inventory. The RM should focus on collecting basic information on every asset in the inventory, starting with basic information such as location, material, size, and install date. Following the collection of this basic information it is recommended that condition, levels of service, replacement cost, and asset risk be collected to proceed forward with meaningful analysis of information. Refer to the "Introduction to Asset Management" (Association of Manitoba Municipalities, 2018) for templates and suggestions for completing these assessments.

## Sanitary Sewer Network

The RM of Riding Mountain West owns and operates a sanitary sewer collection system to provide wastewater removal in the RM. Currently, no sanitary sewer network information is stored in MuniSight's Webmap software.

The inclusion of the sanitary sewer mains is a significant first step in data collection; this should be the main focus when collecting and consolidating data to build a basic asset inventory. The RM should focus on collecting basic information on every asset in the inventory, starting with basic information such as location, material, size, and install date. Following the collection of this basic information it is recommended that condition, levels of service, replacement cost, and asset risk be collected to proceed forward with meaningful analysis of information. Refer to the "Introduction to Asset Management" (Association of Manitoba Municipalities, 2018) for templates and suggestions for completing these assessments.

## Storm Sewer Network

The RM of Riding Mountain West owns and manages a storm sewer system to drain surface-water and prevent flooding. Currently no storm sewer data exists in MuniSight's Webmap software. However according to the MAMP Workplan, culvert information is currently being collected by the watershed district. Once the location and basic asset inventory information is collected the RM will determine the state of the culvert infrastructure assets and those in need of replacement. The inclusion of the storm sewer mains is a significant first step in data collection; this should be the main focus when collecting and consolidating data to build a basic asset inventory. The RM should focus on collecting basic information on every asset in the inventory, starting with basic information such as location, material, size, and install date. Following the collection of this basic information it is recommended that condition, levels of service, replacement cost, and asset risk be collected to proceed forward with meaningful analysis of information. Refer to the "Introduction to Asset Management" (Association of Manitoba Municipalities, 2018) for templates and suggestions for completing these assessments.

## Fleet & Equipment

The RM of Riding Mountain West owns and maintains a fleet of vehicles, equipment, and machinery for various purposes throughout the municipality. The Tables below is a summary of the fleet and equipment network inventory stored within MuniSight's Webmap software:

| Fleet Asset Name | Purchase Date | Expected Useful Life | Replacement Cost |
|---|---|---|---|
| Ford Crew Cab | 2013 | - | - |
| 1999 Ford 4x F350 Diesel 1-Ton | 2009 | - | - |
| 2014 Ford Super Duty F-250 | 2015 | - | - |
| 2010 Chevrolet Silverado | 2018 | - | - |
| 2009 Dodge Ram | 2020 | - | - |

**Table 4: Fleet Network Inventory**

| Equipment Asset Name | Install Date | Expected Useful Life | Replacement Cost |
|---|---|---|---|
| Leon Blade | - | 10 | - |
| John Deere Blade | - | 10 | - |
| Rivinius Blade | - | 10 | - |
| Trailer & Pressure Washer | - | 10 | - |
| Fire Truck Pumper | - | 10 | - |
| Cat 420E | - | 15 | - |
| Fire Truck Chassis | - | 15 | - |
| One Way Snowplow | - | 15 | - |
| Recycling Trailer | - | 10 | - |
| Riding Lawn Mower | - | 10 | - |
| Radio (For Truck) | - | 10 | - |
| Laser | - | 10 | - |
| Pager | - | 10 | - |
| Pagers (12) | - | 10 | - |
| Motorola M800 Bag | - | 10 | - |
| Siren | - | 10 | - |
| Fire Suit | - | 10 | - |
| Dirty Water Pump | - | 10 | - |

| | | | |
|---|---|---|---|
| Fire Truck Equipment | - | 10 | - |
| Fire Truck Radio | - | 10 | - |
| Highline 15 ft Mower | - | 15 | - |
| Equipment for Fire Truck | - | 10 | - |
| 2008 Sterling Sand Truck | - | 15 | - |
| 2 Way Radios | - | 10 | - |
| Float Dock Strainer | - | 10 | - |
| Fire Equipment | - | 10 | - |
| Liberty 54 in. Light | - | 10 | - |
| Motorola Pages | - | 10 | - |
| Fire Hose & Equipment | - | 10 | - |
| 201216 ft. Recycling Trailer | - | 10 | - |
| Flat Deck Trailer | - | 10 | - |
| Water Pump (20HP) | - | 10 | - |
| 9000W Generators (2) | - | 10 | - |
| Radio for 2008 Sterling | - | 10 | - |
| Cat Grader Mount | - | 15 | - |
| Frost Bucket | - | 10 | - |
| 2003 Ford F350 Coach | - | 15 | - |
| Fire Suits | - | 10 | - |
| Fuel Tank | - | 10 | - |
| SCBA1 | - | 10 | - |
| SCBA2 | - | 10 | - |
| SCBA3 | - | 10 | - |
| SCBA4 | - | 10 | - |
| Council Chairs (7) | - | 10 | - |
| Magnum 25KW Diesel | - | 10 | - |
| Winch | - | 10 | - |
| Trailer | - | 10 | - |
| Honda 5.5 HP Centrifugal | - | 10 | - |
| SCBA (3) | - | 10 | - |
| Helmets/Suits | - | 10 | - |

| | | | |
|---|---|---|---|
| Turn Out Gear | - | 10 | - |
| Radios/Antennas | - | 10 | - |
| SCBA Cylinder | - | 1 | - |
| 2005 Grasshopper Lawnmower 52” | - | 10 | - |
| Mower Trailer (Homemade) | - | 10 | - |
| 2 Garbage Trailers | - | 10 | - |
| Culvert Trailers | - | 10 | - |
| Used Stone Picker | - | 10 | - |
| Shop Inventory | - | 10 | - |
| ¼ Share Loader Nuisance | - | 10 | - |
| 1972 Chevrolet Fire Truck | - | 10 | - |
| 2004 Sterling Fire Truck | - | 10 | - |
| 2010 J.D. Grader | - | 15 | - |
| Skid Steer | - | 10 | - |
| Silver Beach Aeration | - | 10 | - |
| Heavy Impact Wrench | - | 10 | - |
| Photocopier ARM620N | - | 10 | - |
| Diesel Tank | - | 10 | - |
| Breathing Apparatus | - | 10 | - |
| Lawnmower 42” MTD Gold Foot-op | - | 10 | - |
| Demolition Saw 14” Power Cutter | - | 10 | - |
| Paging System | - | 10 | - |
| 2004 Freightliner Tanker Truck | - | 10 | - |
| Upgrades to 2004 Freightliner Tanker Truck | - | 10 | - |
| Zero Turn Mower | - | 10 | - |
| Karcher Steamer/Pressure Washer | - | 10 | - |
| Safco 5 Drawer Filing Cabinet | - | 10 | - |
| Supreme Basics (Chairs & Desks) | - | 10 | - |
| Samsung 65Mu7600 | - | 10 | - |
| 14 x RDG 40 Energy Gold Pioneer Coat & Pants | - | 10 | - |
| Honeywell Titan 2013 NFPA SCBA 4500psi | - | 10 | - |
| FIRELITE Transport Deluxe Skid Unit FDHP-303-200 | - | 10 | - |

| | | | |
|---|---|---|---|
| Honeywell Titan 2013 NFPA SCBA 4500psi | - | 10 | - |
| 1 RDG 40 Energy Gold Pioneer Coat & Pants | - | 10 | - |
| Mower Z254F 23HP KAW 54" CC FAB DECK | - | 10 | - |
| Mower Sidearm 1820 Sidearm | - | 10 | - |
| Mower Base Unit REV 1500 Base | - | 10 | - |
| SCBA & Cylinders (Angusville FD) | - | 10 | - |
| Fire Radios (Inglis FD) | - | 10 | - |
| Fire Radios (Angusville FD) | - | 10 | - |
| Pallet Forks | - | 10 | - |
| Schulte EX1500 Mower & Arm FLX 1510 | - | 10 | - |
| Oil Tank (Inglis Shop) | - | 10 | - |
| 40' Container (Inglis Landfill) | - | 10 | - |
| Sod Mulcher | - | 15 | - |
| Sand Truck | - | 15 | - |
| International Tanker | - | 15 | - |
| Fire Truck Cab | - | 15 | - |
| Ford F350 garbage Truck | - | 15 | - |
| On Way Plow/Grader | - | 15 | - |
| FLX 15 Schulte Hitch | - | 15 | - |
| Shoring Equipment | - | 15 | - |
| 2013 JD Tractor 6150M | - | 15 | - |
| 2013 JD Loader | - | 15 | - |
| 2013 Schulte Mower XH1500 | - | 15 | - |
| Cat Grader 140M AWD | - | 15 | - |
| Cat 924HZ Wheel Loader | - | 15 | - |
| Cat 160M AWD Grader S/N D9T01551 | - | 15 | - |
| Cat 160M AWD Grader S/N D9T01550 | - | 15 | - |
| Cat 160M AWD Grader S/N D9T01549 | - | 15 | - |
| 2012 Bomag BMP8500 SN 101720112546 | - | 16 | - |
| Quick Attach Snowplow SN IMRP407 | - | 17 | - |
| Puma 150 L765 Loader | - | 19 | - |
| Computer System | - | 4 | - |

| | | | |
|---|---|---|---|
| WIN Tax/UB/Receipting MB-P | - | 4 | - |
| Canon Fax/Copy Machine | - | 4 | - |
| WIN Tax/UB/Receipting MB | - | 4 | - |
| Printer Laser (2) | - | 4 | - |
| Acer Computer System | - | 4 | - |
| Computer Spare | - | 4 | - |
| Acer Pro Aio w/ Windows | - | 4 | - |
| HP Laser Jet 1300 | - | 4 | - |
| Photocopier | - | 4 | - |
| Munisoft Program Update | - | 4 | - |
| Munisoft Program Update | - | 4 | - |
| Samsung CLX3185 Printer | - | 4 | - |
| Computer Equipment | - | 4 | - |
| Lenovo 10M3000US 715Q | - | 4 | - |
| Dell Latitude 3480 | - | 4 | - |
| Panasonic KXNS700 Communications Platform | - | 4 | - |
| PowerEdge R240 Server | - | 4 | - |
| 3 Lenovo Computer processor | - | 4 | - |
| Battery Back-Up for Workstations | - | 4 | - |
| Teleconference Phone & Cables | - | 4 | - |
| Phone (Angusville) | - | 4 | - |
| Apple iPads (9) | - | 4 | - |
| Computer w/ Components | - | 4 | - |

**Table 5: Equipment Network Inventory**

It is recommended that Riding Mountain West collect and centralize further relevant information on these assets including purchase year, expected useful life, and replacement cost. This information can be used to develop an asset replacement forecast for the fleet equipment. Other useful information includes asset condition, level of service, and risk. The RM does not have enough data on levels of service, asset condition, or asset risk to proceed forward with meaningful analysis of this information. Refer to the “Introduction to Asset Management” (Association of Manitoba Municipalities, 2018) for templates and suggestions for completing these assessments.

## Buildings

The RM of Riding Mountain West owns and maintains municipal buildings to deliver services to stakeholders. The figure below is a summary of buildings data within the database:

| Asset Name | Install Date | Expected Useful Life | Replacement Cost |
|---|---|---|---|
| Inglis Office | 1992-01-01 | 40 | - |
| Angusville Office, Fire Hall & Shop | 2013-01-01 | 40 | - |
| Angusville Community Centre | - | - | - |
| Inglis Shop | 2014-01-01 | 40 | - |
| Inflis Fire Hall | 1981-01-01 | 40 | - |
| Silverton Hall & Rink | 1950-01-01 | 25 | - |
| Angusville Heritage Hall | 1920-01-01 | 25 | - |
| Inglis Skating Rink | - | - | - |
| Inglis Grain Elevators National Historic Site | - | - | - |
| Shellmouth United Church Heritage Site | - | - | - |
| Bath/Change House Silver Beach | 2006-01-01 | 40 | - |
| Silver Beach Aeration | 1993-10-01 | 40 | - |

**Table 6: Building Inventory**

It is recommended that Riding Mountain West collect and centralize further relevant information on these assets including install date, expected useful life, and replacement cost. Other useful information includes asset condition, level of service, and risk. Insurance evaluations can be used as a great place to begin consolidating replacement costs. The RM does not have enough data on levels of service, asset condition, or asset risk to proceed forward with meaningful analysis of this information.

# Conclusion

The RM of Riding Mountain West is implementing a proactive Asset Management Program. While still in the early stages this report is a significant first step towards achieving success with asset management.

Through the use of a GIS database, the RM maintains a basic list of asset information for several asset classes. This list includes locations of roads, water infrastructure, sanitary sewers, fleet/equipment, building, and recreational sites. These asset classes typically make up a significant portion of the RM's capital asset expenditures, so the RM has developed a strong foundation for its asset management planning initiatives. Moving forward with asset management should include collecting additional asset information, defining levels of service, building additional asset management procedures, and increasing knowledge within the municipal staff. It is advised to take a gradual approach and address the most critical issues with top priority. Asset management planning is an evolving process that grows following municipal development.

# Recommendations

The following recommendations are provided, based on the findings in this Asset Management Plan:

| # | Priority | Recommendation | Accountable |
|---|---|---|---|
| 1 | | Utilize Asset Management Documentation – Asset Management Policy, Strategy, & Plan. | Council |
| 2 | | Adopt Roadmap to layout a long-term plan prioritizing and deploying asset management initiatives. | AM Team<br>Council |
| 3 | | Data Management - Continue to update, consolidate, and collect asset information on the water, wastewater, roads, fleet, building, and recreational asset data. As well as migrating storm sewer network data into webmap. Developing a basic asset inventory should be a priority. | AM Team |
| 4 | | Asset Data – Develop a schedule for completing the asset inventory then begin condition assessment collection. Start with a specific asset type that the RM deems most critical. For example,<br>1. Collect/centralize storm sewer network information (potentially bringing engineering data into the centralized database)<br>2. Collect further water network condition data (potentially bringing engineering data into the centralized database)<br>3. Collect further road network condition data (potentially bringing engineering data into the centralized database)<br>4. Etc. | AM Team<br>PW Staff<br>Council |
| 5 | | Levels of Service - Define Levels of Service for each asset type. This will benefit from input from Council and Stakeholders throughout the RM. | AM Team<br>PW Staff |
| 6 | | Training – Investigate Training options for municipal staff on Asset Management fundamental principles. | AM Team<br>Council |
| 7 | | Determine installation date, expected useful life, and replacement costs for infrastructure assets to develop an asset replacement forecast. | PW Staff |
| 8 | | Asset Data – Conduct Levels of Service assessment and Risk assessment, beginning with higher priority assets. | PW Staff<br>AM Team |

**Table 7: Report Recommendations**

# References

ACEC, CCA, CPRA, CPWA, CSCE, CUTA, CNAM, FCM. (2019). *2019 Canadian Infrastructure Report Card*. Retrieved from Canadian Infrastructure: http://canadianinfrastructure.ca/downloads/canadian-infrastructure-report-card-2019.pdf

Association of Manitoba Municipalities. (2018, March 1). *AMM Document Library*. Retrieved from Assocation of Manitoba Municipalities (AMM): http://www.amm.mb.ca/download/guides/AMM_Asset_Management_Guide.pdf


The preparation of this project was carried out with assistance from the Government of Canada and the Federation of Canadian Municipalities. Notwithstanding this support, the views expressed are the personal views of the authors, and the Federation of Canadian Municipalities and the Government of Canada accept no responsibility for them.