
Procedure To Add or Change the City of Selkirk Risk Registry

Date Approved: **DRAFT**

Section: Capital Asset Management

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Lead: Director, Operations

Keywords: Capital Asset Management, Asset Evaluation

Supports: **Policy CAM-006 – City of Selkirk Capital Asset Risk Management Policy**

OBJECTIVES

Procedure to follow in order to add or change an asset in the City of Selkirk Capital Asset Risk Registry

SUPPORTING POLICY, PROCEDURES, AND TOOLS

Policy

LOS-001 City of Selkirk Snow Clearing/Removal and Sanding Policy

CAM-006 City of Selkirk Capital Asset Risk Management Policy

Tools

CAM-001-000-01 City of Selkirk Asset Registry

CAM-006-000-01 City of Selkirk Risk Registry

City of Selkirk Utility Atlas Drawings

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1. ACQUIRE ASSET DATA FROM ASSET REGISTRY

Who: GIS/Survey Technician

- 1.1. Access the *City of Selkirk Asset Registry*
- 1.2. Use the column headings, in the order listed, to filter the *City of Selkirk Asset Registry* data in order to acquire information regarding the asset that is *City of Selkirk Risk Registry*:
 - 1.2.1. Asset Subclass
 - 1.2.2. Asset Name
 - 1.2.3. Section From To
- 1.3. Make note of the following information – this will be required for Step 2.
 - 1.3.1. Asset ID
 - 1.3.2. Detailed Unique Identifier
 - 1.3.3. Diameter (If Applicable)

2. DETERMINE IF THE ASSET EXISTS ALREADY IN THE REGISTRY OR IS AN ADDITION

- 2.1. Access the *City of Selkirk Risk Registry*.
- 2.2. Select the appropriate Asset Subclass that the asset belongs to from the tabs along the bottom of the excel spreadsheet.
- 2.3. Use the Asset ID column to search for the Asset ID of the Asset, which was acquired in the previous step.
 - 2.3.1. Select the drop-down arrow in the “Asset ID” cell.
 - 2.3.2. Use the Search Bar within the pop-out box to type in the Asset ID acquired in Step 1.3.1.
 - 2.3.3. If the search does not provide an existing asset, select “Cancel” and proceed to Step 3.
 - 2.3.4. If the search provides an existing asset, select “Ok” and proceed to Step 4. This will isolate only the asset that is to be updated.

3. COMPLETE NEW ASSET DATA

Who: GIS/Survey Technician

- 3.1. Navigate to the bottom of the spreadsheet, until a blank row of cells is available to add the new asset.
- 3.2. Complete the following columns with the information that was acquired from the *City of Selkirk Asset Registry* in Step 1:
 - 3.2.1. Asset ID
 - 3.2.2. Detailed Unique Identifier
 - 3.2.3. Asset Name
 - 3.2.4. Section From To
 - 3.2.5. Asset Subclass
 - 3.2.6. Diameter (If Applicable)

4. UPDATE THE CRITICAL RISK CHARACTERISTICS [Specific to Asset Subclass]

Who: GIS/ Survey Technician

Transportation Services

4.1. Criticality Characteristic: Traffic Count

- 4.1.1. Determine the level of traffic on the road asset, based on road classification.

Arterial Roads: Any part of Manitoba Avenue, owned by the City of Selkirk. For Arterial Roads, record 3.5 in the "Traffic Count" column of the *City of Selkirk Risk Registry*.

Commercial Roads: All P1 and P2 roads in the City of Selkirk, as defined by the *City of Selkirk Snow Removal Policy*. For commercial roads, record 2.0 in the "Traffic Count" column of the *City of Selkirk Risk Registry*.

Residential Roads: All roads in the City of Selkirk, not defined as Arterial or Commercial. For residential roads, record 1.0 in the "Traffic Count" column of the *City of Selkirk Risk Registry*.

4.2. Criticality Characteristic: Commercial District

4.2.1. Determine if the road asset is included in the Commercial District, as it is defined by the *City of Selkirk Risk Management Policy*. Google Earth may be a beneficial tool in determining whether the asset is or is not in this district.

4.2.2. If the asset is not within the defined Commercial District, record 0.0 in the "Commercial District" column of the *City of Selkirk Risk Registry*.

4.2.3. If the asset is within the defined Commercial District, record 2.0 in the "Commercial District" column of the *City of Selkirk Risk Registry*.

4.3. Criticality Characteristic: Primary Route to Key Destination

Data to be collected.

4.4. Criticality Characteristic: Bus Route

4.4.1. Determine if the road asset is apart of the Selkirk Transit route. The most current route can be found on the Selkirk Transit website.

4.4.2. If the asset is apart of the Bus Route, record 1.5 in the "Bus Route" column of the *City of Selkirk Risk Registry*.

4.4.3. If the asset is not apart of the Bus Route, record 0.0 in the "Bus Route" column of the *City of Selkirk Risk Registry*.

4.5. Criticality Characteristic: Truck Route

4.5.1. Use City of Selkirk By-Law 5123 to determine whether the road asset is defined as a truck route.

4.5.2. If the asset is a truck route, record 0.5 in the "Truck Route" column of the *City of Selkirk Risk Registry*.

4.5.3. If the asset is not a truck route, record 0.0 in the "Truck Route" column of the *City of Selkirk Risk Registry*.

4.6. Criticality Characteristic: Redundant

4.6.1. Launch ArcMap10.6.1

4.6.2. From the RoadNetwork.gdb, launch the MBRoads_Selkirk feature class.

4.6.3. Analyze the road network to determine if the specific road asset in question has an alternate route that would allow a use to get from the same Point A to Point B, with minimal disruption to their route.

4.6.4. If there is an alternative route, this asset has redundancy – enter 0.0 in the “Redundant” column of the *City of Selkirk Risk Registry*.

4.6.5. If there is no alternate route, this asset has no redundancy – enter 0.5 in the “Redundant” column of the *City of Selkirk Risk Registry*.

Storm Mains

4.7. Criticality Characteristic: Pipe Diameter

4.7.1. Use the information acquired from the *City of Selkirk Asset Registry*, and recorded in the Risk Registry, to determine the Pipe Diameter.

4.7.2. If the Pipe Diameter is between 900-1650 mm, record 4.0 in the “Pipe Diameter” column of the *City of Selkirk Risk Registry*.

4.7.3. If the Pipe Diameter is between 600-750 mm, record 2.0 in the “Pipe Diameter” column of the *City of Selkirk Risk Registry*.

4.7.4. If the Pipe Diameter is between 200-525 mm, record 1.0 in the “Pipe Diameter” column of the *City of Selkirk Risk Registry*.

4.8. Criticality Characteristic: Service Critical Asset

4.8.1. Consult with the Director of Operations to determine if a specific Storm Main asset is a Service Critical Asset or not. A Service Critical Asset is defined in the *City of Selkirk Risk Management Policy*.

4.8.2. If the asset in question is determined as a Service Critical Asset, record 3.0 in the “Service Critical Asset” column of the *City of Selkirk Risk Registry*.

4.8.3. If the asset in question is not considered a Service Critical Asset, record 0.0 in the “Service Critical Asset” column of the *City of Selkirk Risk Registry*.

4.9. Criticality Characteristic: Current Over Capacity

Data to be collected.

4.10. Criticality Characteristic: Predicted Over Capacity

Data to be collected.

Watermains

4.11. Criticality Characteristic: Pipe Diameter

4.11.1. Use the information acquired from the *City of Selkirk Asset Registry*, and recorded in the Risk Registry, to determine the Pipe Diameter.

4.11.2. If the Pipe Diameter is between 325-400 mm, record 3.5 in the “Pipe Diameter” column *City of Selkirk Risk Registry*.

4.11.3. If the Pipe Diameter is between 250-300 mm, record 1.5 in the “Pipe Diameter” column *City of Selkirk Risk Registry*.

4.11.4. If the Pipe Diameter is between 150-225 mm, record 1.0 in the “Pipe Diameter” column *City of Selkirk Risk Registry*.

4.11.5. If the Pipe Diameter is between 38-125 mm, record 0.5 in the “Pipe Diameter” column *City of Selkirk Risk Registry*.

4.12. Criticality Characteristic: Service Critical Asset

4.12.1. Consult with the Director of Operations, and Manager of Utilities to determine if a watermain asset is a Service Critical Asset or not. A “Service Critical Asset” asset is defined in the *City of Selkirk Risk Management Policy*.

4.12.2. If the asset in question is determined as a Service Critical Asset, record 3.5 in the “Service Critical Asset” column *City of Selkirk Risk Registry*.

4.12.3. If the asset in question is not considered a Service Critical Asset, record 0.0 in the “Service Critical Asset” column *City of Selkirk Risk Registry*.

4.13. Criticality Characteristic: Redundancy

4.13.1. Launch ArcMap10.6.1

4.13.2. From the Water_Network.gdb, launch the Watermain feature class.

4.13.3. Analyze the watermain network to determine if the asset in question has an alternate route that would continue to provide water to an area, if the asset in question was to fail.

4.13.4. If there is an alternative asset providing the same services, this asset has redundancy – enter 0.0 in the “Redundant” column *City of Selkirk Risk Registry*.

4.13.5. If there is no alternate route, this asset has no redundancy – enter 2.0 in the “Redundant” column *City of Selkirk Risk Registry*.

4.14. Critical Distance from Key Community Facilities

4.14.1. Launch ArcGIS 10.6.1

- 4.14.2. From the Water_Network.gdb, launch the Watermain feature class.
- 4.14.3. From the Sekirk.gdb, launch the Key_CInfra shapefile.
- 4.14.4. For each Key Community Facilities identified in the *Risk Management Policy*, determine the service connection to the watermain. From that watermain, trace the network back until the line forks, and there is more than one water source. Each asset that has no alternative water supply to the Key Community Facility is within the critical distance.
- 4.14.5. If the asset is within this critical distance, record 1.5 in the “Critical Distance from Key Community Facility” column *City of Selkirk Risk Registry*.
- 4.14.6. If the asset is not within this critical distance, record 0.0 in the “Critical Distance from Key Community Facility” column *City of Selkirk Risk Registry*.

Sewer Main

4.15. Criticality Characteristic: Pipe Diameter

- 4.15.1. Use the information acquired from the *City of Selkirk Asset Registry*, and recorded in the Risk Registry, to determine the Pipe Diameter.
- 4.15.2. If the Pipe Diameter is between 525-900 mm, record 3.0 in the “Pipe Diameter” column *City of Selkirk Risk Registry*.
- 4.15.3. If the Pipe Diameter is between 350-500 mm, record 1.5 in the “Pipe Diameter” column *City of Selkirk Risk Registry*.
- 4.15.4. If the Pipe Diameter is between 100-300 mm, record 0.5 in the “Pipe Diameter” column *City of Selkirk Risk Registry*.

4.16. Criticality Characteristic: Combined/Separated Sewer

- 4.16.1. Review the most current *City of Selkirk Utility Atlas Drawings* to determine whether the sewer main is apart of the combined or separated sewer.
- 4.16.2. If the *Utility Atlas Drawings* show both the sewer main and storm water drainage – the pipe is separated. Record 0.0 in the “Combined/Separated” column *City of Selkirk Risk Registry*.
- 4.16.3. If the *Utility Atlas Drawings* show only the sewer main – the pipe is combined. Record 2.5 in the “Combined/Separated” column *City of Selkirk Risk Registry*.

4.17. Criticality Characteristic: Service Critical Asset

4.17.1. Consult with the Director of Operations, and Manager of Utilities to determine if a Sewer main asset is a Service Critical Asset or not. A Service Critical Asset is defined in the *City of Selkirk Risk Management Policy*.

4.17.2. If the asset in question is determined as a Service Critical Asset, record 2.0 in the "Service Critical Asset" column *City of Selkirk Risk Registry*.

4.17.3. If the asset in question is not considered a Service Critical Asset, record 0.0 in the "Service Critical Asset" column *City of Selkirk Risk Registry*.

4.18. Criticality Characteristic: Forced VS Gravity Sewer

4.18.1. Review the most current *City of Selkirk Utility Atlas Drawings* to determine whether the pipe is a forced sewer or gravity sewer. This will be determined by the layer that the pipe is drawn on.

4.18.2. If the pipe belongs to the ForcedMain Layer, record 1.5 in the "Forced vs Gravity Sewer" column *City of Selkirk Risk Registry*.

4.18.3. If the pipe does not belong to the ForcedMain layer, record 0.0 in the "Forced vs Gravity Sewer" column *City of Selkirk Risk Registry*.

4.19. Criticality Characteristic: Critical Distance from Key Community Facility

4.19.1. Launch ArcGIS 10.6.1

4.19.2. From the WastewaterNetwork.gdb, launch the Wastewater_Main feature class.

4.19.3. From the Sekirk.gdb, launch the Key_CIinfra shapefile.

4.19.4. For each Key Community Facility identified in the *Risk Management Policy*, determine the service connection to the wastewater main. From that connection point, trace the network back until the line forks and there is more than one water source. Each asset that has no alternative route away from the Key Community Facility is within the critical distance.

4.19.5. If the asset is within this critical distance, record 1.0 in the "Critical Distance from Key Community Facility" column *City of Selkirk Risk Registry*.

4.19.6. If the asset is not within the critical distance, record 0.0 in the "Critical Distance from Key Community Facility" column *City of Selkirk Risk Registry*.

Parks

4.20. Criticality Characteristic: Park Category

- 4.20.1. Using the City of Selkirk Recreation Strategy, determine the category the park asset belongs to.
- 4.20.2. If the park asset is a Regional Park, record 3.5 in the "Park Category" column *City of Selkirk Risk Registry*.
- 4.20.3. If the park asset is a Community Park, record 2.5 in the "Park Category" column *City of Selkirk Risk Registry*.
- 4.20.4. If the park asset is a Neighborhood Park, record 1.5 in the "Park Category" column *City of Selkirk Risk Registry*.

4.21. Criticality Characteristic: Amenities

Data to be collected.

4.22. Criticality Characteristic: Natural Assets

- 4.22.1. Consult with the Manager of Parks and Recreation to determine whether the park asset is primarily natural or engineered components.
- 4.22.2. If the park asset is primarily natural, record 1.5 in the "Natural Assets" column *City of Selkirk Risk Registry*.
- 4.22.3. If the park asset is primarily engineered, record 0.0 in the "Natural Assets" column *City of Selkirk Risk Registry*.

4.23. Criticality Characteristic: Seasonal Park

- 4.23.1. Consult with the Manager of Parks and Recreation to determine if the park asset in question is used year around, or only seasonally.
- 4.23.2. If the park facilitates year around recreation, record 0.5 in the "Seasonal Park" column *City of Selkirk Risk Registry*.
- 4.23.3. If the park does not facilitate year around recreation, record 0.0 in the "Seasonal Park" column *City of Selkirk Risk Registry*.

Pathways

4.24. Criticality Characteristic: Natural Assets

4.24.1. Consult with the Manager of Parks and Recreation to determine whether the park asset is primarily natural or engineered components.

4.24.2. If the park asset is primarily natural, record 3.0 in the “Natural Assets” column *City of Selkirk Risk Registry*.

4.24.3. If the park asset is primarily engineered, record 0.0 in the “Natural Assets” column *City of Selkirk Risk Registry*.

4.25. Criticality Characteristic: Number of Users

4.25.1. Using the City of Selkirk Recreation Strategy, determine the category of park that the pathway asset belongs to.

4.25.2. If the pathway asset is a Regional Park, record 3.0 in the “Number of Users” column *City of Selkirk Risk Registry*.

4.25.3. If the park asset is a Community Park, record 2.0 in the “Number of Users” column *City of Selkirk Risk Registry*.

4.25.4. If the park asset is a Neighborhood Park, record 1 in the “Number of Users” column *City of Selkirk Risk Registry*.

4.26. Criticality Characteristic: Connectivity

Data to be collected.

4.27. Criticality Characteristic: Accessible

Data to be collected.

5. RECORD THE TOTAL CRITICALITY SCORE IN THE CITY OF SELKIRK ASSET REGISTRY

Who: GIS/Survey Technician

5.1. Upon completing the appropriate columns required to calculate the assets criticality score, it must be recorded in the City of Selkirk Asset Registry.

5.2. Open the *City of Selkirk Asset Registry*.

- 5.3. Use the "Detail_Unique_Identifier" column to filter the registry to only display the asset being updated.
- 5.4. Navigate to the Asset Criticality Score column, and record the value displayed in the Asset Criticality Score column of the Risk Registry for the specific asset.

6. SAVE THE ASSET REGISTRY

Who: GIS/Survey Technician

- 6.1. Save the *Asset Registry* before closing.

7. SAVE THE RISK REGISTRY

Who: GIS/Survey Technician

- 7.1. Save the *Risk Registry* before closing.