Procedure for Annual Review of Risk Register Data

Date Approved: **DRAFT**　　　　　　　　Section: Capital Asset Management

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Keywords: Capital Asset Management, Asset Evaluation

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

OBJECTIVES

SUPPORTING POLICY, PROCEDURES, AND TOOLS

Policy

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

CAM-006 City of Selkirk Risk Management Policy

Procedures

Tools

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

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

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Access the *City of Selkirk Risk Register*

Access the *City of Selkirk Asset Registry*

Follow the steps for the appropriate Asset Subclass:

1. ROAD SURFACE

1.1.   Criticality Characteristic: Traffic Count

1.1.1. Determine the level of traffic on each 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 *Risk Registry.*

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

1.2.   Criticality Characteristic: Commercial District

1.2.1. Determine which road assets are 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 the Commercial District.

1.2.2. Isolate these streets in the *City of Selkirk Asset Registry* to determine the Asset ID.

1.2.2.1. Use drop down in the "Asset Sub Class" column to filter Road Surface.

1.2.2.2. Use the "Asset Name" column to select each of the Street Names that belong to the Commercial District.

1.2.2.3. Use the "Section From To" column to isolate the road surface segments that belong to the Commercial District.

1.2.2.4. Make note of these Asset IDs.

1.2.3. From the *Risk Registry*, isolate the Asset IDs identified by step 1.2.2.

    1.2.3.1. Use the "Asset ID" column filter button to de-select all assets.

    1.2.3.2. From the list, select only those identified in step 1.2.2.

1.2.4. Record 2.0 in the "Commercial District" column of the *Risk Registry*, since all these assets belong in the commercial district.

1.2.5. Clear selection.

1.2.6. Filter the Road Surface assets in the *Risk Registry* so that only those that do not belong in the Commercial District are being displayed.

    1.2.6.1. Use the drop down of the "Commercial District" column and de-select 2.0. This will display now all assets that do not have 2.0 recorded.

1.2.7. Record 0.0 for each "Commercial District" cell of the *Risk Registry*. These are the assets that are not within the commercial district.

1.3. Criticality Characteristic: Primary Route to Key Destination

    Data to be collected.

1.4. Criticality Characteristic: Bus Route

1.4.1. Launch the City of Selkirk Asset Registry.

1.4.2. Determine the road assets that belong to the Selkirk Transit route. The most current route can be found on the Selkirk Transit website.

1.4.3. Isolate these assets in the *Asset Registry*.

    1.4.3.1. Display only road assets by filtering the "Asset Sub Class" column and selecting "Road Surface".

    1.4.3.2. Use the "Asset Name" column to filter the streets that belong to the Transit Route.

    1.4.3.3. Use the "Section From To" column to filter the segments of the road that belong to the Selkirk Transit route.

1.4.3.4. Make note of the Asset IDs that remain.

1.4.4. Use the *Risk Registry* to record the Asset IDs that belong to the Transit Route.

1.4.4.1. Use the "Asset ID" column to display only those that were identified in 1.4.3.

1.4.5. Record 1.5 in the "Bus Route" column of the *Risk Registry*.

1.4.6. Clear selection.

1.4.7. Use the filter in the "Bus Route" Column to display all those assets that are not apart of the City of Selkirk Transit Route.

1.4.7.1. Click the drop down arrow.

1.4.7.2. De-select the check box that displays "1.5".

1.4.8. Record 0.0 in the "Bus Route" column of the *Risk Registry*, for all assets that are being displayed.

1.5. **Criticality Characteristic: Truck Route**

1.5.1. Launch the *City of Selkirk Asset Registry.*

1.5.2. Determine the road assets that are apart of a Truck Route. Use City of Selkirk By-Law 5123 to determine which road assets are defined as a truck route.

1.5.3. Isolate these assets in the City of Selkirk Asset Registry.

1.5.3.1. Display only Road Assets by filtering the "Asset Sub Class" column and selecting "Road Surface".

1.5.3.2. Use the "Asset Name" column to filter the streets that belong to a truck route.

1.5.3.3. Use the "Section From To" column to filter the segments of the road that belong to a truck route.

1.5.3.4. Make note of the Asset IDs that remain.

1.5.4. Use the *Risk Registry* to record the Asset IDs that belong to a Truck Route.

1.5.4.1. Use the "Asset ID" column in the *Risk Registry* to display only those that were identified in 1.5.3.

1.5.5. Record 0.5 in the "Truck Route" column of the *Risk Registry*.

1.5.6. Clear selection.

1.5.7. Use the filter in the "Truck Route" column to display all those assets that are not apart of a Truck Route.

1.5.7.1. Click the drop down in the "Truck Route" column.

1.5.7.2. De-select those assets that display 0.5

1.5.8. Record 0.0 in the "Truck Route" column for all the assets that are being displayed.

1.6. **Criticality Characteristic: Redundant**

1.6.1. Launch ArcMap10.6.1

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

1.6.3. 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.

1.6.4. Make a list of Asset IDs that do not have redundancy.

1.6.5. In the R*isk Registry*, filter the Road Surface asset ID's identified in 1.6.4. For these assets, record 0.5 in the "Redundant" column of the *Risk Registry.*

1.6.6. Clear selection.

1.6.7. Use the drop down filter in the "Redundant" column to select all assets that have redundancy.

1.6.7.1. Click the drop down arrow

1.6.7.2. De-select the checkbox that displays "0.5".

1.6.8. Record 0.0 in the "Redundant" column of the *Risk Registry* for all assets that are displayed.

2. STORM MAINS

2.1. Criticality Characteristic: Pipe Diameter

2.1.1. Filter the "Diameter (mm)" column in the *Risk Registry* using the drop down arrow.

2.1.2. De-select all the check boxes.

2.1.3. Select all the options that are between 900-1650 mm.

2.1.4. Select "Ok".

2.1.5. Record 4.0 in the "Pipe Diameter" column for all of the assets that are being displayed.

2.1.6. From the "Diameter (mm)" column, de-select all of the check boxes that were previously selected.

2.1.7. Re-select any values that are between 600-750 mm.

2.1.8. Select "Ok".

2.1.9. Record 2.0 in the "Pipe Diameter" column for all of the assets that are being displayed.

2.1.10. From the "Diameter (mm)" column, de-select all of the checkboxes that were previously selected.

2.1.11. Re-select any values that are between 200-525 mm.

2.1.12. Select "Ok"

2.1.13. Record 1.0 in the "Pipe Diameter" column for all of the assets that are being displayed.

2.2. Criticality Characteristic: Service Critical Asset

2.2.1. 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.*

2.2.2. If the asset in question is determined as a Service Critical Asset, record 3.0 in the "Service Critical" column.

2.2.3. If the asset in question is not considered a Service Critical Asset, record 0.0 in the "Service Critical Asset" column.

2.3. **Criticality Characteristic: Current Over Capacity**

Data to be collected.

2.4. **Criticality Characteristic: Predicted Future Over Capacity**

Data to be collected.

3. WATERMAINS

3.1. **Criticality Characteristic: Pipe Diameter**

3.1.1. Filter the "Diameter (mm)" column using the drop down arrow.

3.1.2. De-select all of the check boxes.

3.1.3. Select all of the options that are between 325-400 mm.

3.1.4. Select "Ok".

3.1.5. Record 3.5 in the "Pipe Diameter" column for all of the assets that are being displayed.

3.1.6. From the "Diameter (mm)" column, de-select all of the check boxes that were previously selected.

3.1.7. Re-select any values that are between 250-300 mm.

3.1.8. Select "Ok".

3.1.9. Record 1.5 in the "Pipe Diameter" column for all of the assets that are being displayed.

3.1.10. From the "Diameter (mm)" column, de-select all of the checkboxes that were previously selected.

3.1.11. Re-select any values that are between 150 -225 mm.

3.1.12. Select "Ok".

3.1.13. Record 1.0 in the "Pipe Diameter" column for all of the assets that are being displayed.

3.1.14. From the "Diameter (mm)" column, de-select all of the check boxes that were previously selected.

3.1.15. Re-select any values that are smaller than 125 mm.

3.1.16. Select "Ok".

3.1.17. Record 0.5 in the "Pipe Diameter" column for all of the assets that are being displayed.

3.1.18. Clear the filters once complete.

3.1.19. Save the *Risk Registry.*

3.2. Criticality Characteristic: Service Critical Asset

3.2.1. 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 is defined in the *City of Selkirk Risk Management Policy*.

3.2.2. If the asset in question is determined as a Service Critical Asset, record 3.5 in the "Service Critical Asset" column.

3.2.3. If the asset in question is not considered a Service Critical Asset, record 0.0 in the "Service Critical Asset" column.

3.3. Criticality Characteristic: Redundancy

3.3.1. Launch ArcMap10.6.1

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

3.3.3. 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.

3.3.4. If there is an alternative asset providing the same services, this asset has redundancy – enter 0.0 in the "Redundant" column.

3.3.5. If there is no alternate route, this asset has no redundancy – enter 2.0 in the "Redundant" column.

3.4.   Critical Distance from Key Community Facilities

3.4.1. Launch ArcGIS 10.6.1.

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

3.4.3. From the Sekirk.gdb, launch the Key_CInfra shapefile.

3.4.4. 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.

3.4.5. If the asset is within this critical distance, record 1.5 in the "Critical Distance from Key Community Facility" column of the Risk .

3.4.6. If the asset is not within this critical distance, record 0.0 in the "Critical Distance from Key Community Facility" column.

4. SEWER MAIN

4.1.   Criticality Characteristic: Pipe Diameter

4.1.1. Filter the "Diameter (mm)" column using the drop down arrow.

4.1.2. De-select all of the check boxes

4.1.3. Select all of the options that are between 525-900 mm.

4.1.4. Select "Ok"

4.1.5. Record 3.0 in the "Pipe Diameter" column for all of the assets that are being displayed.

4.1.6. From the "Diameter (mm)" column, de-select all of the check boxes that were previously selected.

4.1.7. Re-select any values that are between 350-500 mm.

4.1.8. Select "Ok".

4.1.9. Record 1.5 in the "Pipe Diameter" column for all of the assets that are being displayed.

4.1.10. From the "Diameter (mm)" column, de-select all of the checkboxes that were previously selected.

4.1.11. Re-select any values that are less than 300 mm.

4.1.12. Select "Ok".

4.1.13. Record 0.5 in the "Pipe Diameter" column for all of the assets that are being displayed.

4.1.14. Clear the filters once complete.

4.1.15. Save the *Risk Registry.*

4.2. **Criticality Characteristic: Combined/Separated Sewer**

4.2.1. Review the most current City of Selkirk Utility Atlas drawings to determine whether the sewer main is apart of the combined or separated sewer.

4.2.2. If the atlas drawings show both the sewer main and storm water drainage – the pipe is separated. Record 0.0 in the "Combined/Separated" column.

4.2.3. If the atlas drawings show only the sewer main – the pipe is combined. Record 2.5 in the "Combined/Separated" column.

4.3. **Criticality Characteristic: Service Critical Asset**

4.3.1. 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.*

4.3.2. If the asset in question is determined as a Service Critical Asset, record 2.0 in the "Service Critical Asset" column.

4.3.3. If the asset in question is not considered a Service Critical Asset record 0.0 in the "Service Critical Asset" column.

4.4. **Criticality Characteristic: Forced VS Gravity Sewer**

4.4.1. 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.

4.4.2. If the pipe belongs to the ForcedMain Layer, record 1.5 in the "Forced vs Gravity Sewer" column.

4.4.3. If the pipe does not belong to the ForcedMain layer, record 0.0 in the "Forced vs Gravity Sewer" column.

4.5. **Criticality Characteristic: Critical Distance from Key Community Facility**

4.5.1. Launch ArcGIS 10.6.1

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

4.5.3. From the Sekirk.gdb, launch the Key_CInfra shapefile.

4.5.4. For each Key Community Facilities 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.

4.5.5. If the asset is within this critical distance, record 1.0 in the "Critical Distance

4.5.6. from Key Community Facility" column of the *Risk Registry.*

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

5. PARKS

5.1. **Criticality Characteristic: Park Category**

5.1.1. Using the *City of Selkirk Asset Registry* to determine the category the park asset belongs to.

5.1.2. If the park asset is a Regional Park, record 3.5 in the "Park Category" column of the *Risk Registry*.

5.1.3. If the park asset is a Community Park, record 2.5 in the "Park Category" column of the *Risk Registry*.

5.1.4. If the park asset is a Neighborhood Park, record 1.5 in the "Park Category" column of the *Risk Registry*.

5.2.   Criticality Characteristic: Amenities

Data to be collected.

5.3.   Criticality Characteristic: Natural Assets

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

5.3.2. If the park asset is primarily natural, record 1.5 in the "Natural Assets" column of the *Risk Registry*.

5.3.3. If the park asset is primarily engineered, record 0.0 in the "Natural Assets" column of the *Risk Registry*.

5.4.   Criticality Characteristic: Seasonal Park

5.4.1. Consult with the Manager of Parks and Recreation to determine if the park asset in question is used year around, or only seasonally.

5.4.2. If the park facilitates year around recreation, record 0.5 in the "Seasonal Park" column of the *Risk Registry*.

5.4.3. If the park does not facilitate year around recreation, record 0.0 in the "Seasonal Park" column of the *Risk Registry*.

6. Pathways

6.1. Criticality Characteristic: Natural Assets

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

6.1.2. If the park asset is primarily natural, record 3.0 in the "Natural Assets" column of the *Risk Registry*.

6.1.3. If the park asset is primarily engineered, record 0.0 in the "Natural Assets" column of the *Risk Registry*.

6.2. Criticality Characteristic: Number of Users

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

6.2.2. If the pathway asset is a Regional Park, record 3.0 in the "Number of Users" column of the *Risk Registry*.

6.2.3. If the park asset is a Community Park, record 2.0 in the "Number of Users" column of the *Risk Registry*.

6.2.4. If the park asset is a Neighborhood Park, record 1 in the "Number of Users" column of the *Risk Registry*.

6.3. Criticality Characteristic: Connectivity

Data to be collected.

6.4. Criticality Characteristic: Accessible

Data to be collected.

7. SAVE THE RISK REGISTRY

Who: GIS/Survey Technician

7.1. Save this as the most current version of the *City of Selkirk Risk Registry* using the following format:

CAM-006-000-01 – City of Selkirk Risk Registry *Month_Year*