Municipal Emergency Plan (MEP)
Risk Assessment Plan (RISK)

Function:	MEP Supporting Documentation		
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Approved By:

DEM

Date

Purpose / Background

As required under MEP Key Legislation (see Governance Annex), Strathcona County shall develop a strategic foundation for identifying and assessing the risks threatening our community, in order to create a common operating picture and a means of objective comparison across services through a focused, repeatable and evidence-based approach.

The County's Risk Assessment Plan outlines the framework used by the County to identify risks with the potential to most challenge capabilities and expose areas in which capability gaps exist. These "capability gaps create barriers in a community's ability to prevent, protect against, mitigate, respond to, and recover from a threat or hazard" [1]. By having a clear understanding of the risks faced, and a common, collaborative operating picture, the County can better determine the level and priority of capabilities to build and sustain for increased community resiliency and reduced recovery costs.

Scope

This plan shall describe the corporate processes and procedures of the County's Risk Analysis Plan and the completion of a five-year Hazard, Risk and Vulnerability Assessment (HRVA) cycle, along with an annual Capability Assessment and Prioritization Plan (CAPP). The outputs of the HRVA five-year cycle provide the County with an evidence-based foundation in a common operating picture, which will be used to prioritize decisions, close capability gaps, support the continuous improvement process and drive other preparedness components.

It excludes the processes of departments completing HRVAs as part of their normal operational responsibility (i.e. RCMP, SCES, PDS, TAS, Utilities and industrial response personnel).

Detailed procedures and supporting documentation are outlined in the Annex linked and appended to this Plan.

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[1] May 2018, 3rd Edition, FEMA, Comprehensive Preparedness Guide (CPG) 201: *Threat and Hazard Identification and Risk Assessment (THIRA) and Stakeholder Preparedness Review (SPR) Guide*, pg. 7

Plan Objectives:

1. Provide a foundation to identify risks, prioritize decisions, close capability gaps, support the continuous improvement process and drive other preparedness components through a common operating picture in a 5 year cycle. This cycle includes:
   a. Completion of a five-year all-of-county Community HRVA using the Strathcona County Risk Matrix.
   b. Completion of an annual all-of-county Capability Assessment and Prioritization Plan
2. Provide a framework for an effective records and information management process
3. Identify processes for implementation, maintenance and continual improvement of both the Plan and supporting documentation

Hazard, Risk and Vulnerability Assessment (HRVA) Overview

According to the DHS Risk Lexicon:

- **Risk** is the potential for an unwanted outcome resulting from an incident or occurrence, as determined by its likelihood and the associated consequences" [2]

Strathcona County has further defined the DHS definition of risk to:

- A process, phenomenon or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption or environmental degradation.

Figure 3: Communities use the THIRA/SPR to answer five key questions.

The HRVA Process (referred to by FEMA as the THIRA/SPR process) seeks to answer five strategic questions about the County's preparedness risks and capabilities, as shown in figure 3.

Completion of the HRVA Cycle:

The following provides the steps used to complete the HRVA Cycle. For specific definitions, scores and processes used to create a collaborative and comprehensive Strathcona Risk Matrix, refer to the following supporting documents appended to this plan:

- Strathcona County Risk Matrix
- Strathcona County Services Classification
- Risk Matrix Definitions and Scoring Guide

Steps 1 through 3 are completed every 5 years.

Step 1:   Review the Categories, Groups and Hazards on the Strathcona County Risk Matrix

The Strathcona County Risk Matrix is pre-populated with an array of common hazards that exist in the Canadian prairies and are not specific to Strathcona County. Some may be more applicable than others. If a particular hazard that poses a threat to the organization is missing, add it to the matrix based on the definitions provided above. Do not remove any hazards that have no applicability to the County. Instead, in the next step assign those hazards a probability of zero.

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[2] DHS Risk Lexicon, June 2010, taken from 2018 FEMA CPG 201, pg. 7; figure 3 from pg. 8

Step 2: Assign a probability of that hazard taking place in Strathcona County

Risk is also the probability that a hazard will turn into a disaster. Vulnerability and hazards are not dangerous, taken separately. But if they come together, they become a risk. In other words, the probability that an event will happen causes a significant degradation in the impact categories.

Use the definitions and scores in the Risk Matrix Definitions and Scoring Guide, along with historical data and subject matter expertise, to determine the probability of the hazard. Enter the score in the appropriate column and row of the Risk Matrix. As stated in step 1, for any listed hazard that is **not likely** to occur in Strathcona County (as opposed to **very** unlikely where the potential is small, but does exist), assign a zero score.

- An example of a hazard that is **not likely** to occur in Strathcona County is a Tsunami.
- An example of a hazard that is **very unlikely** to occur in Strathcona County is an earthquake.

Step 3: For a given hazard, determine the impacts across all categories

Use the definitions and scores in the Risk Matrix Definitions and Scoring Guide to determine the potential impacts to Buildings or Facilities, Critical Infrastructure, People & Social, Services or Supply Chain, and Information & Technology categories. Enter the score in the appropriate column and row of the Risk Matrix. The Raw Risk Score will be populated based on this assessment.

A first pass through the hazards and their impacts is recommended, followed by a second pass to reassess/adjust based on the final ranking of raw risk scores.

Steps 4 through 7 are completed on an annual basis

Step 4: Assess the organizational vulnerability to the hazards

Use the definitions and scores in the Risk Matrix Definitions and Scoring Guide, along with historical data and subject matter expertise, to assess whether the County is susceptible to a given hazard (Is there a proximity to the hazard? Is the County exposed to the conditions where the hazard may impact it?) and resilience (are there resources, capacities, mitigations, or controls in place to reduce the impact of the hazard).

Enter the score in the appropriate column and row of the Risk Matrix.

Provide a written overview of what is in place to reduce the susceptibility and increase the resilience of the organization, thus reducing vulnerability.

Step 5: Assign a vulnerability score

Based on the information given in step 4, and according to the definitions and processes provided in the Risk Matrix Definitions and Scoring Guide, input the county's vulnerability score to the hazards in the appropriate column and row of the Risk Matrix. This provides an overview of the County's capability assessment.

Step 6: Review the adjusted risk score to determine priorities for further risk treatment

Using the adjusted risk scores based on your vulnerability score, determine which are the highest priority risk areas and potential capability gaps. Assign an initial risk treatment to each of the hazards to assess which next steps are appropriate. Include funding impacts of planned treatments as applicable.

Step 7: Complete an all-of-county Capability Assessment and Prioritization Plan

Compare the previous year's adjusted risk score for each hazard to the current year's score to determine changes (positive or negative) to priority risk areas and potential capability gaps.

Review previous risk treatments planned and/or applied to each of the hazards, to assess plan effectiveness and update the annual Capability Assessment and Prioritization Plan accordingly.

Incident Records and Information Management (Documentation and Archive)

Strathcona County will maintain all Risk Assessment documentation as part of the MEP Risk Assessment Annex, including the five year overarching Strathcona County Risk Matrix and annual Capability Assessment and Prioritization Plans.

Further guidance can be found in the supporting documentation appended to this plan.

Roles and Responsibilities:

SCEMA, in collaboration with all County Departments, shall:

   a) Coordinate, develop, implement and maintain the county's overarching Risk Assessment Plan
   b) Consult with and assist all county departments in developing, planning and executing specific roles and processes related to the Risk Assessment and supporting plans
   c) liaise with external agencies, stakeholders and surrounding municipalities as mutual aid partners to ensure a collaborative and comprehensive risk assessment and capability planning process

The D/DEM shall, in collaboration with the EAC and senior County Leadership:

   a) support the County's Risk Assessment and associated plans and procedures by activation of the appropriate participating components and levels promptly and in accordance with the Risk Assessment Plan and other associated plans and procedures

All County departments shall, in collaboration with Strathcona County Emergency Management Agency:

   a) support the County's Risk Assessment Plan through collaboration with the plan and supporting processes
   b) support the County's Risk Assessment Plan and associated plans and procedures by providing resources, equipment and subject matter expertise as required and requested
   c) participate in periodic exercises and drills to maintain comfort and familiarity with roles, responsibilities and plans. Such training may include participation in functional or full scale operational exercises that test major portions, elements, capabilities and responsibilities of the County MEP, supporting plans and processes, and associated activities

Participating County staff shall, in collaboration with SCEMA and their home department:

   a) support the County's Risk Assessment Plan and associated plans and procedures by responding as required and requested
   b) participate in periodic exercises and drills to maintain comfort and familiarity with roles, responsibilities and plans. Such training may include participation in functional or full scale operational exercises that test major portions, elements capabilities and responsibilities of the County MEP, supporting plans and processes, and associated activities

Supporting Plans and Resources

This overarching Risk Assessment (RA) Plan is supported by the documentation in the Risk Assessment Annex as noted above.

Evaluation

Audit and Review

Strathcona County Emergency Management Agency shall conduct annual audits and reviews to determine conformance and effectiveness of the implementation and maintenance of the MEP and its component parts. Such audits and reviews shall include, but not be limited to in-depth After Action Reviews (AARs), Quality Management annual internal and external ISO audits, and the annual AEMA audit as required under the LEMR.

Corrective Action

The County's Emergency Management Agency shall take corrective action on identified deficiencies, gaps, and limitations, to ensure that lessons documented in the various program evaluations, exercises, tests, and audit review processes become lessons learned and implemented.

Management Review

Senior Management Review

This Annex shall be included in the MEP Annual review by the County's Senior Leadership, including members of the EAC and SCEMA, as outlined in the MEP Executive Summary.

Continual Improvement

The program review process shall incorporate ongoing analysis and evaluation, as well as corrective action planning and review as outlined in the MEP.