Kings County, NS
Heat Advisory & Response System
(HARS)

September 2022

(Change 2)

Table of Contents – Heat Advisory & Response System (HARS)


KINGS COUNTY, REGIONAL EMERGENCY MANAGEMENT ORGANIZATION
KNOW THE RISKS
MAKE A PLAN
GET A KIT
REMO
Advocate Harbour
Scots Bay
Minas Basin
Walton
Kentville
Berwick
Aylesford
Port George
Kingston
Greenwood
Middleton
Lawrencetown
Bridgetown
Lake Paul
New Russell
New Ross
East Dalhousie
Windsor
Brooklyn
MUNICIPALITY of the COUNTY of KINGS
TOWN OF berwick
Kentville
wolfville

FOREWORD

The development of a Kings County Heat Advisory and Response System (HARS) is paramount to public safety in the case of extreme heat events that may impact the citizens of Kings County, Nova Scotia. The Kings County Heat Advisory and Response System was prepared in consultation with Provincial, County and Municipal stakeholders responsible for everyday management throughout Kings County. It serves as Kings County's response plan to coordinate an integrated approach to extreme heat events.

The Kings County Heat Advisory and Response System is developed as a Support Plan to the Kings REMO Regional Emergency Management Plan (REMP), Change 1 in order to provide the level of detail required for a comprehensive emergency response to extreme heat events.

Kings REMO strives for strong leadership within the emergency management community and is dedicated to continuous improvements and enhancements to this plan, training and exercising throughout the Kings County region. Therefore, this plan is a living document that will be amended as necessary through a planning process that is managed by the Regional Emergency Management Coordinator (REMC) in consultation with emergency management partners throughout the County.

Cate Savage
Chair
Kings REMO Regional EM Advisory Committee
Deputy Mayor, Town of Kentville

EXECUTIVE SUMMARY

This Kings REMO Heat Alert and Response System (HARS) is a Support Plan to the Kings County Regional Emergency Management Plan (REMP).

The plan describes Operational Area coordination during heat-related emergencies and provides guidance for Kings County municipal governments (Municipality of the County of Kings, and the Towns of Berwick, Kentville and Wolfville), other governmental agencies, local businesses, community-based organizations, and faith-based organizations, in the preparation for, and response to, emergency incidents of extreme heat.

The plan recognizes the need for Kings County to:

1. Identify when the health of residents may be threatened by extreme heat conditions;
2. Communicate with the public to convey information about resources available for protection against extreme heat emergencies in time to allow for preparations to be made;
3. Communicate and coordinate with Provincial and local agencies;
4. Mobilize resources and initiate actions to augment local resources as needed; and
5. Employ the Incident Command System (ICS) in organizing a response to an extreme heat emergency.

The Kings REMO Heat Advisory & Response System (HARS) recognizes five (5) phases:

I. Pre-Seasonal Readiness
II. Heat Advisory
III. Heat Warning;
IV. Heat Wave; and
V. Demobilization

These phases are activated based on the severity of the risk of extreme heat temperatures to vulnerable populations, the general population, and animals. The direct involvement of local agencies to protect individuals increases with the severity of the risk.

The plan contains specific actions to be taken in each of the phases and a checklist to guide actions. The specific action steps include the following:

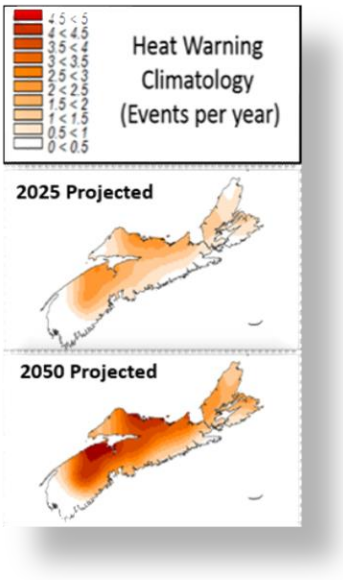
- Coordinate amongst local agencies and the Province — All phases
- Disseminate information — All phases
- Identify Cooling Centres — Phase I
- Review Plan and confirm roles and responsibilities — Phase I
- Connect with Kings REMO Cooling Centres — Phase II
- Coordinate and publicize location of Cooling Centres — Phase II
- Risk communication and monitoring vulnerable population — Phases III and IV
- Determine need and benefit for activating Cooling Centres — Phases III and IV
- Transportation assessment — Phases III and IV
- Local Government consideration for a State of Local Emergency — Phases IV
- Demobilization — Phase V

The Kings REMO HARS plan contains the following:

- A description of the purpose and scope of the plan;
- Background information including the history of heat emergencies in Province of Nova Scotia and Kings County;
- Descriptions of the conditions triggering each phase of the plan;
- The responsible local agencies and the actions those agencies will carry out during the different phases of the plan;
- Guidance for coordinating efforts during extreme temperature events; and
- Annexes of supporting information.

1.0 INTRODUCTION

1.1 Background



Climate projections by Environment Canada indicate that the Annapolis Valley region of Nova Scotia can expect extreme heat events of increasing intensity, duration and frequency.

Increasing average temperatures and an increased frequency of extreme heat events have brought attention to the importance of developing heat response plans by and for Canadian communities. Various Canadian municipalities have developed their own extreme heat response plans. These differ in complexity and composition depending on the availability of resources, perceived level of risk and other
local factors.

1.2 References

International

- World Health Organization – Heat and Health

National

- Heat Alert and Response Systems (HARS) to Protect Health: Best Practices Guidebook, 2012
- Communicating the Health Risks of Extreme Heat Events: Toolkit for Public Health and Emergency Management Officials, 2011
- Extreme Heat Events Guidelines: Technical Guide for Health Care Workers, 2011
- Health Checks During Extreme Heat Events – National Collaborating Centre for Environmental Health, 2022-06-22

Provincial

- Nova Scotia Emergency Management Act
- Nova Scotia Department of Labour and Advanced Education – Health Safety

Regional

- Kings REMO Regional Emergency Management Plan (REMP), 2021-03 (Change 1)
- Kings REMO Regional Emergency Evacuation Plan, 2018-12
- Kings REMO Evacuation Operational Guidelines, 2018-05-01
- Kings REMO Emergency Coordination Centre Operational Guidelines, 2018-05-01
- Kings REMO Policy – Comfort Centres/Emergency Shelters

1.3 Purpose

The Kings REMO Heat Alert and Response System (HARS) is an Emergency Management Support Plan that outlines the actions that will be taken by Kings REMO and local government when an extreme heat event is anticipated, is in the process of occurring, or has occurred.

This plan is designed as a Support Plan to the Kings REMO Regional Emergency Management Plan (REMP) to facilitate preparedness for, and response to, future excessive heat events. It also provides guidance for local government and non-governmental organizations in the preparation of their heat emergency response plans and other related activities.

1.4 Essential Components

The essential components of the Kings REMO Heat Advisory and Response System include public education and preparedness, public warnings and response action plans.

1.4.1 Public Education

- Excessive Heat Awareness & Safety Campaign (May/June);
- Websites & Social Media;
- Information Brochures;
- Public media messaging; and
- Kings REMO Community Outreach program.

1.4.2 Monitoring

- Monitoring of weather forecasts;
- Identifying weather situations that adversely affect human health; and
- Monitoring vulnerable populations

1.4.3 Response

- Implementing mechanisms for issuing warnings when a weather situation is forecasted which could adversely affect health;
- Promoting public health activities to prevent heat-related illness and death;
- Increased Community Outreach;
- Increased surveillance;
- Dissemination of educational material;
- Distribution of bottled water to vulnerable populations;
- Identify potentially dangerous situations;
- Opening of Cooling Centres when appropriate; and
- Provision of transportation to Cooling Centres.

1.5 Objectives

The goal of the Kings REMO Heat Advisory and Response System (HARS) is to improve the resiliency among residents of Kings County to extreme heat events. In order to achieve this goal, the overarching objectives of this plan are to:

- To ensure that all agencies working with vulnerable groups are provided with information on what precautions to take when temperatures reach extreme levels;
- To coordinate a community response when temperatures reach extreme levels;

- To ensure that vulnerable populations are cared for when temperatures reach extreme levels;
- To provide cooling centres when appropriate; and
- To activate the Kings County Regional Emergency Management Plan (REMP) when appropriate.

1.6 Aim and Scope

The primary goal of the Kings REMO Heat Advisory and Response System is to provide an integrated planning framework that recognizes the role of individual residents, business owners, emergency responders and the Municipalities of Kings County. Together these individuals, groups and agencies represent the first line of defence in responding to an extreme heat event in Kings County.

This goal is supported by the overarching objective of enhancing public and emergency responder education, emergency preparedness and emergency response policies and procedures. Together these are intended to prevent or reduce loss of life or sever injury and/or damage to property and infrastructure during an extreme heat incident within Kings County.

If the need to relocate impacted residents is apparent, the provisions of the Regional Emergency Evacuation Plan (REEP) shall be implemented. In such events, the Municipality shall discuss the need to declare a State of Local Emergency (SOLE), Annex A, if a mandatory evacuation is needed.

2.0 CONCEPT OF OPERATIONS (CONOPS)

2.1 Planning Assumptions

The following assumptions were considered in the development of the Kings County REMO Heat Advisory and Response System (HARS):

- Kings County will experience several, consecutive days of Heat Events throughout the summer months; these are normally accompanied by warm over-night temperatures as well;
- It is anticipated that extreme heat events will become more intense, more frequent, and longer lasting in the future;
- The populations at risk to heat related illnesses is vast and includes many factors including, but not limited to age, pre-existing health conditions, socio-economic factors, religious beliefs, and location;
- Heat stroke is fast setting and has a high mortality rate. Early identification and prevention are essential in prevention; and
- Warning and messaging systems are already established from Kings County REMO using various media outlets (news, radio, websites, social media, and emergency email notification system).

2.2 Situation Overview

Heat waves and emergencies do not cause damage or elicit the immediate response of floods, fires, earthquakes, or other more "typical" disaster scenarios. While heat waves are obviously less dramatic, they are potentially deadlier.

Heat emergencies are often slower to develop, taking several days of continuous, oppressive heat before a significant or quantifiable impact is seen. Heat waves do not strike victims immediately, but rather their cumulative effects slowly take the lives of vulnerable populations. Some of those most impacted may be at special risk because of their own Functional and Access Needs (e.g. physical disabilities, the elderly, medically fragile populations, socially isolated, homeless, etc.).

The precise definition of an Extreme Heat Event (EHE) varies, but always refers to unusually hot temperature and/or high Humidex readings as compared to the typical regional average for that season. EHEs are not new to Canada. Between 1900 and 2005, five major EHEs occurred in Canada - from Ontario to the Atlantic Ocean (1912), Western and Central Canada (1936), Toronto region (1953), Halifax region (1963), Prairie Provinces and Central and Southern Ontario (1988) - causing over 1,200 deaths and many heat-related illnesses. And more recently, more than 550 people are suspected to have died as a result of a July 2021 heat wave in British Columbia.

Health Canada doesn't keep information about heat-related deaths in Canada because it's not one of the "nationally notifiable" diseases that the provinces must report to federal authorities, nor does it collect the information itself.

Bouts of extreme heat are expected to become more frequent, notes a 2018 report from Canada's federal and provincial Auditors General, with their evaluation concluding that governments had under-delivered on commitments to deal with climate change. The report states that "by 2100, the number of days above 30 degrees Celsius in Canadian cities is expected to double, and a one-in-20-year hottest day may become a one-in-two-year event."[1]

Extreme heat impacts different people in different ways, depending on their age, underlying medical conditions and how well they are acclimatized to hot conditions. Exposure to extreme heat over prolonged periods of time without access to cooling intervals (such as typically occur at night) makes it hard for the human body to maintain a consistent internal temperature. This stress can result in a rise of internal temperature, and/or increased stress on respiratory and circulatory systems. Either circumstance can result in related health problems or death. Even a short break from the extreme heat helps to reduce this stress.

2.3 Heat Sensitive and Vulnerable Populations

Some groups of people are more vulnerable to hot weather and heat related illness and death. Heat vulnerable groups include[2]:

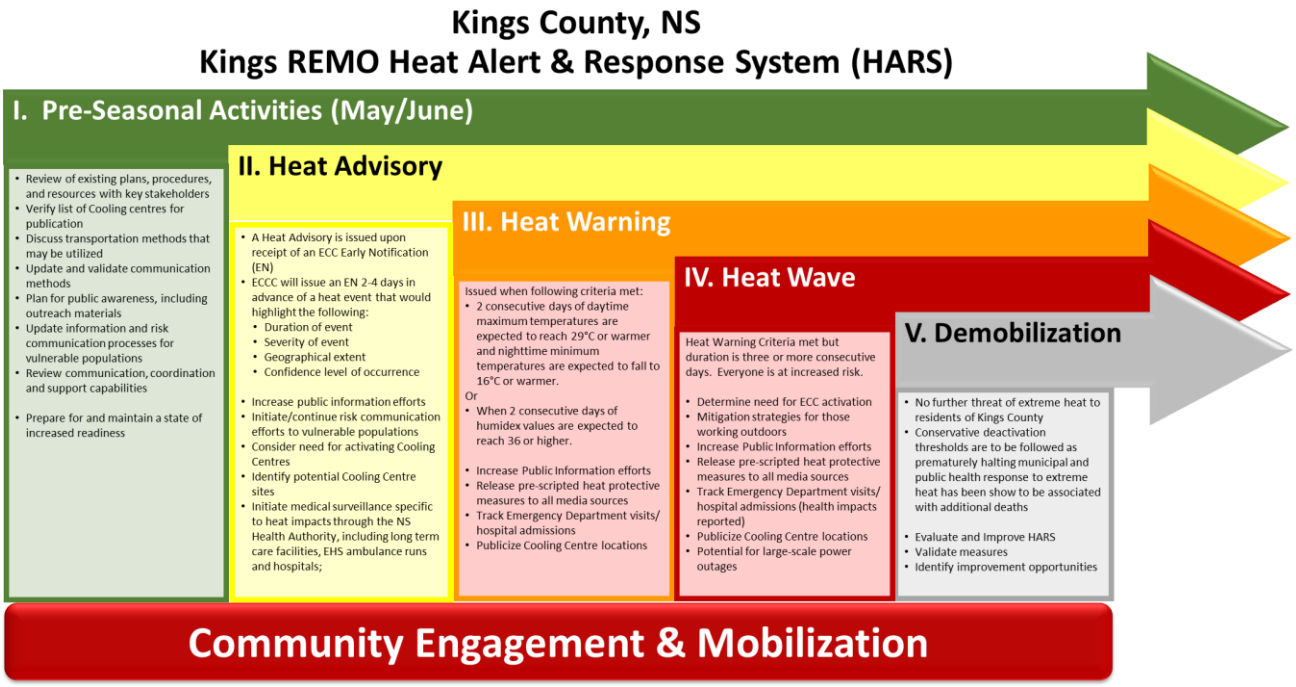
- older adults;
- infants and young children;
- people with chronic illness such as asthma, cardiovascular diseases and kidney disease;
- people with mental illness or who are physically impaired;
- people taking certain medications;
- socially disadvantaged or socially isolated individuals and communities;
- newcomers to Canada;
- occupational groups; and
- people who work and recreate outdoors

Any individual, regardless of age, sex, or health status can develop heat stress if engaged in intense physical activity and/or exposed to environmental heat (and humidity). If heat exposure exceeds the body's capacity to cool a range of heat-related symptoms and conditions can develop – from relatively minor treatable heat cramps to severe life-threatening heat stroke, which is always an extreme medical emergency. Adequate hydration is critical to avoid development of heat-related illness.

[1] Perspectives on Climate Change Action in Canada-A Collaborative Report from Auditors General, March 2018
[2] Health Canada (2011). *Adapting to Extreme Heat Events: Guidelines for Assessing Health Vulnerability*

2.4 Local Response Phases

To prepare members of the public and government resources for extreme heat conditions, there are a series of five response levels within Kings County, depending upon severity of the threat to public health as well as animals. Severity is determined by a number of factors, including the absolute degree of temperature deviation to the levels that threaten health, contributing factors such as humidity and diurnal (daily) variation, the expected duration of the extreme temperature event, the status of community infrastructure (e.g. utilities, transportation) to allow the public to mitigate the impact of the temperature extremes. The general criteria for gauging the severity of threat posed by a heat emergency are described in this section.



2.4.1 Phase I – Pre-Seasonal Activities

Phase I actions are taken prior to hotter months (usually in May/June) to prepare for and maintain a state of increased readiness. Pre-Seasonal Readiness will be initiated each year in May or early June by the Regional Emergency Management Coordinator (REMC) with the Kings County Regional Emergency Management Planning Committee (REMPC), which includes representatives from Nova Scotia Health Authority, Emergency Social Services, Emergency Health Services, other County Departments, and Non-Governmental Agencies (NGOs).

This includes the following actions:

- ☐ Review of existing plans, procedures, and resources with key stakeholders;
- ☐ Dissemination of plans to key stakeholders;
- ☐ Verify list of Cooling Centres for publication;

- ☐ Discuss transportation methods that may be utilized in Phase III and Phase IV for Cooling Centres;
- ☐ Update and validate communication methods for response agencies;
- ☐ Develop a plan for public awareness including outreach materials that outline steps on how to prepare before extreme heat, what to do during extreme heat and includes web links and phone numbers for more information. Identify and verify list of vulnerable populations and coordinating agencies;
- ☐ Update information and risk communication processes for vulnerable populations; and
- ☐ Review communication, coordination and support capabilities and methods with local non-governmental and faith-based organizations.

2.4.2 Phase II – Heat Advisory

Heat Advisories for Kings County are issued upon receipt of an Environment Canada and Climate Change (ECCC) Early **Notification for extreme temperatures**. An Early Notification for extreme temperatures will be issued 2-4 days in advance of a heat event and would highlight the following information:

- Duration of event;
- Severity of event;
- Geographical extent; and
- Confidence level of occurrence

Benchmarks for Phase II are monitored by local government and include but are not limited to credible predictions by Environment and Climate Change Canada of excessive heat or of power outages during warmer than normal weather conditions in Kings County. During this phase, contact with local agencies, stakeholders and coordination among Provincial agencies increases.

Specific benchmarks include:

- An Early Notification (EN) from Environment and Climate Change Canada (ECCC), giving an outlook for an extended period of much above average temperatures.

Phase II actions by Kings REMO may include the following:

- ☐ Increase Public Information efforts including Social Media and Kings REMO Emergency Email Notification System;
- ☐ Release pre-scripted heat protective measures to all media sources;
- ☐ Initiate/continue risk communication efforts to vulnerable populations as outlined in Phase I;
- ☐ Ensure employees have updated heat emergency materials;
- ☐ Coordinate with the managers and owners of any Cooling Centres considered for publication;
- ☐ Publicize and communicate Cool Centre locations;
- ☐ Consider need for activating Cooling Centres;

- ☐ Identify potential Cooling Centre sites; and
- ☐ Develop a transportation working group consisting of public, private, volunteer and service organizations to identify and develop a transportation component and procedures to ensure vulnerable populations are provided transportation to Cooling Centres.

2.4.3 Phase III – Heat Warning

Heat Warnings for Kings County will be issued by Environment and Climate Change Canada (ECCC) to inform the public when air temperature and/or humidex are forecast to be above defined criteria for two consecutive days so that the public can take action to protect themselves from the risks associated with extreme heat.

Criteria for issuing a **Heat Warning** in Nova Scotia:

- Issued when 2 or more consecutive days of daytime maximum temperatures are expected to reach 29°C or warmer and nighttime minimum temperatures are expected to fall to 16°C or warmer.
  Or
- Issued when 2 or more consecutive days of humidex values are expected to reach 36 or higher

Specific benchmarks include:

- A **Heat Warning** from Environment and Climate Change Canada, giving an outlook for an extended period of much above average temperatures;
- Increased EHS calls and Emergency Department visits;
- Increased wellness checks by Kings RCMP and Kentville Police Services; and
- Credible predictions of power outages, electrical blackouts, or rotating blackouts are issued during periods of high heat.

During Heat Warnings, everyone may be at increased risk of heat stress and heat stroke:

- People living alone without air conditioning are at high risk especially if the heat wave lasts many days;
- Check regularly on your neighbours and relatives to make sure they are not in danger; and
- Organizers of sport and recreational activities should build in regular water breaks and rest or consider rescheduling activities.

Phase III actions by Kings REMO may include the following:

- ☐ Continuing actions identified in Phase II;
- ☐ Participate in periodic or daily calls as needed with Provincial agencies (NS EMO) regarding weather and power updates;

- ☐ Increase Public Information efforts including Social Media and Kings REMO Emergency Email Notification System;
- ☐ Release pre-scripted heat protective measures to all media sources (Annex E and Annex F);
- ☐ Initiate/continue risk communication efforts to vulnerable populations as outlined in Phase II;
- ☐ Initiate medical surveillance specific to heat impacts through the NS Health Authority, including long term care facilities, EHS ambulance runs and hospitals;
- ☐ Track Emergency Department visits and hospital admissions;
- ☐ Ensure employees have updated heat emergency materials;
- ☐ Coordinate with local utilities to assess power restrictions or limitations;
- ☐ Consider need for activating Cooling Centres and identify potential Cooling Centre sites;
- ☐ Publicize and communicate Cooling Centre locations;
- ☐ Develop a transportation working group consisting of public, private, volunteer and service organizations to identify and develop a transportation component and procedures to ensure vulnerable populations are provided transportation to Cooling Centres;
- ☐ Coordinate with local utilities to assess power restrictions or limitations;
- ☐ Coordinate with NS Power / Berwick Electric to identify and develop procedures for the operations of volunteered "Cooling Centres" that could be exempted from rotating blackouts;
- ☐ Ensure pet and animal heat impacts are being addressed through special facilities or pet accommodations at Cooling Centres or other locations; and
- ☐ Coordinate with local utilities to assess power restrictions or limitations.

2.4.4 Phase IV – Heat Wave

A **Heat Wave** will be issued to residents of Kings County to inform the public when air temperature and/or humidex are forecast to be above defined criteria for three (3) or more consecutive days so that the public can take action to protect themselves from the risks associated with extreme heat.

Criteria for issuing a Heat Wave in Kings County:

- Issued when 3 or more consecutive days of daytime maximum temperatures are expected to reach 29°C or warmer and nighttime minimum temperatures are expected to fall to 16°C or warmer.
  Or
- Issued when 3 or more consecutive days of humidex values are expected to reach 36 or higher

Specific benchmarks include:

- A Heat Warning from Environment and Climate Change Canada, giving an outlook for an extended period of much above average temperatures;
- Increased EHS calls and Emergency Department visits; and
- Credible predictions of power outages, electrical blackouts, or rotating blackouts are issued during periods of high heat.

Phase IV actions by Kings REMO may include the following:

- ☐ Continuing actions identified in Phase III;
- ☐ Consider activation of the Kings REMO Regional Emergency Coordination Centre (ECC)
- ☐ Consider activating community information and public health call lines;
- ☐ Conduct bed polling status of hospitals and monitor status of medical facilities;
- ☐ Monitor for possible medical impacts of prolonged power outages or rolling blackouts;
- ☐ Monitor Cooling Centres providing regular updates on numbers of persons at each, access and functional related needs, support issues, and power availability;
- ☐ Track heat related fatalities and medical emergencies; and
- ☐ Monitor impacts to agriculture including animal mortality, rendering plant impacts and coordination with industry. Determine potential impacts to landfills due to heat related animal mortality.

2.4.5 Phase V – Demobilization

A Heat Warning Demobilization will be announced by Kings REMO when there is no further threat of extreme heat to the citizens of Kings County. Upon confirmation that the Heat Warning has ended. Kings REMO Regional Emergency Management Coordinator will communicate this information to community partners.

A Heat Warning response should only be deactivated on a day on which Environment and Climate Change Canada's 2-day forecast (i.e., today and tomorrow) does not exceed the thresholds of temperature or humidex. Conservative deactivation thresholds are to be followed as prematurely halting municipal and public health responses to extreme heat has been shown to be associated with additional deaths.

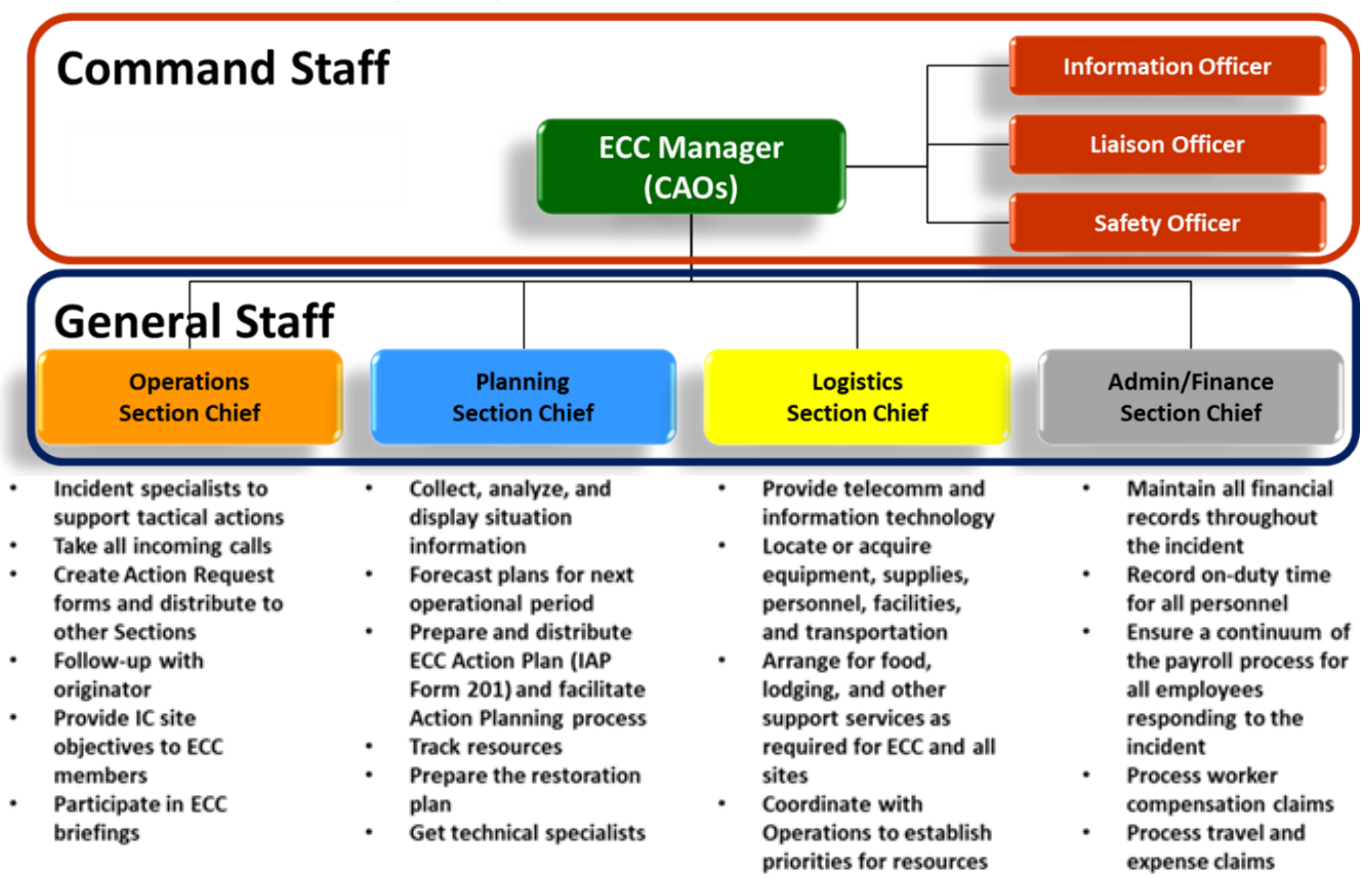
Following confirmation of termination, the ECC Information Officer will issue a news release as approved by the ECC Manager. The news release will:

- ☐ Announce the end of the Heat Warning/Heat Wave;
- ☐ Specify the criteria upon which the deactivation is based;
- ☐ Specify the need for continued vigilance against heat-related health effects within vulnerable populations as there can be a lag period between exposure to heat and ill health effects;
- ☐ Provide directions on where the public may obtain additional information; and
- ☐ Announce the closure of Cooling Centres.

Kings REMO will monitor the demobilization process as the premature halting of municipal and public health responses to extreme heat has been shown to be associated with additional deaths.

2.5 Extreme Heat Response Organizational Structure

To support an extreme heat incident within Kings County, the Kings REMO Emergency Coordination Centre is structured under the Incident Command System (ICS).



2.6 Municipal Public Warning Strategy

As there are limited audible warning systems within the Municipalities of Kings County, the public will be alerted to extreme heat incidents through local media (radio, television, newspaper) and social media (Facebook, Twitter). Warnings will also be posted on all Municipal websites and distributed through the Kings REMO Emergency Email Notification System. In extreme circumstances, public warning may also be done through vehicle public address systems and/or door-to-door contact by municipal services and/or volunteers.

Municipal Websites:

- Municipality of the County of Kings
- Town of Berwick
- Town of Kentville
- Town of Wolfville

2.7 Heat Waves and Large Public Events

Summer is a time for people to get outside and enjoy themselves. Large scale public events, such as music and arts festivals; sports events; and national celebrations are held throughout Kings County every summer providing enjoyment to millions of people.

While local agencies are generally well equipped to plan and deal with such events, the effects of excessive heat and sun exposure are sometimes not highlighted enough. Large public events increase exposure to heat and direct sunlight and can make organisational responses more difficult. Individual behaviours often change (for example, people may be reluctant to use the toilet facilities due to the long queues and so purposely reduce fluid intake). At many large events, people get into a good position to see the event and then reduce fluid intake and heat avoidance behaviours so as not to lose their spot. This can lead to heat-related illness, dehydration and/or collapse.

2.7.1 Heatwave advice and Mass Gatherings

The following table provides a quick heat-health checklist that can be used when planning large scale public events (mass gatherings):

Heat-health Risk	Actions to consider
Increased exposure to heat	☐ Provide temporary shaded areas at event locations (umbrellas, tents) ☐ Reduce the need to line-up (efficient check-in, additional staffing, or staggered ticket entry) ☐ Provide a water spray/mist area/spraying (showers, garden hose) ☐ Make available a map of local public air-conditioned spaces where people can have respite from the heat (consider extending opening hours of these venues) ☐ Divert strenuous activities for cooler days or cooler periods of the day and provide an alternative, less strenuous program for hot days
Communication Barriers	☐ Prepare advice for tourists and distribute around hotels, and transportation hubs ☐ Produce and distribute heat-health advice printed onto free fans or caps (can be used to fan/protect against sun while containing information on protecting against recognizing heat-related illnesses, and provide emergency phone number in case of identified heat related illness) ☐ Inform your audience and/or your members about the health risks and possible preventive measures through digital screens/speakers/ announcements
Reduced access to Water	☐ Distribute water bottles or temporary water dispensers ☐ Ensure an adequate supply of drinking water – on hot days it is advisable to provide free drinking water

Heat-health Risk	Actions to consider
Severe Heat Emergency	☐ Consider moving date, location or cancel event in extreme heat conditions ☐ Ensure adequate immediate relief for people in emergency and ensure their transport to the first aid/EHS unit
Medical Needs	☐ Remember that people with asthma, heart disease and/or other additional chronic conditions are additionally health sensitive to ozone and/or heat ☐ Keep in mind that alcohol and some (prescription) drugs can worsen effect of heat ☐ Ensure adequately trained personnel who notify authorities as soon as there are incidents of heat illness observed
Food Needs	☐ Provide water-rich foods such as salads, yogurt and ensure that food is kept cool to prevent contamination

3.0 RESPONSIBILITIES

3.1 Federal

In December 2007, the Government of Canada committed to help Canadians adapt to the challenges of a changing climate and its impacts. [3]

Environment and Climate Change Canada (ECCC) are responsible for issuing Special Weather Statements, Early Notifications and Heat Warnings for heat related events. Municipal staff across departments receive regular weather reports, advisories, and warnings from Environment Canada weather services. These services are provided by weather meteorologists located in at Nova Scotia EMO Headquarters in Dartmouth, NS

3.2 Provincial

3.2.1 Nova Scotia Emergency Management Office (NS EMO)(DMA)

- NS EMO takes an "all-hazards" approach to emergency management that recognizes that mitigation, preparedness, response and recovery can be used to address the impact of disasters.
- NS EMO regional staff (Emergency Management Preparedness Officers - EMPO's) work with municipal emergency management coordinators to ensure there are emergency management plans in place for each municipality in Nova Scotia.
- Municipal planning and local knowledge are represented in the development of emergency management plans.
- The MCCAP process requires municipal emergency management coordinators to work with EMPOs in the development of their respective climate change action plans.

3.2.2 Nova Scotia Health (NSH)

Nova Scotia Health developed the 'Heat Stress Management' program to promote a healthy workplace and to comply with legislative requirements. The program provides guidance and direction to staff who may be exposed to conditions which could result in a worker's core body temperature exceeding 38°C (100°F), or conditions which are in excess of the screening criteria values for heat stress exposure.

3.3 Regional – Kings REMO

Kings REMO is responsible for developing and implementing mitigation strategies to prevent or lessen the occurrences and/or severity of extreme heat events.

These strategies include:

- ☐ Local partner notification processes
- ☐ Public communications and support to public health heat education opportunities
- ☐ Making cooling centres and hydration accessible to the public
- ☐ Working to address the needs of vulnerable populations

[3] Health Canada – Climate Change and Health: Health Effects

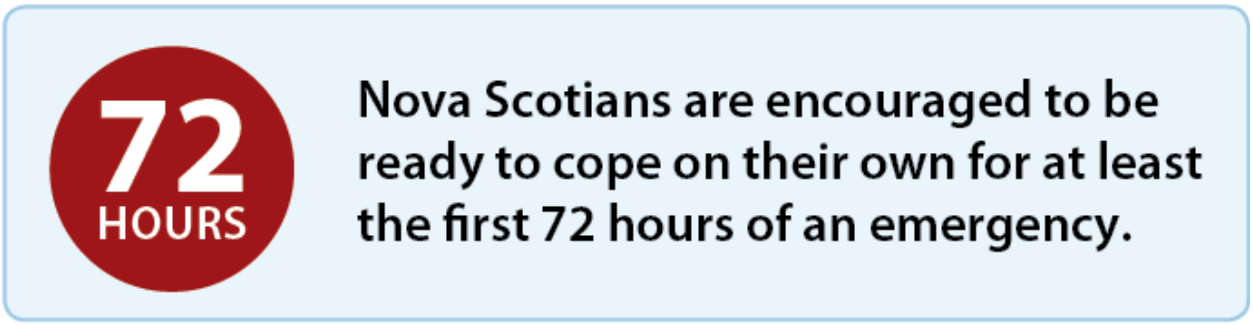
- ☐ Responding to impacts on municipally delivered health services such as Emergency Medical Services or Long-Term Care
- ☐ Responding to impacts on critical infrastructure such as power supply
- ☐ Occupational health and safety for their own workers in hot weather
- ☐ Potential activation of Emergency Coordination Centre, and activation of other local emergency response plans/protocols as required

Kings REMO roles may involve a range of various departments/divisions, ranging from recreation to public works to social services, as well as multiple community partners, from the Red Cross and utility companies to landlords, faith-based organizations, and smaller local service organizations

3.4 Role of the Private Sector

3.4.1 Residents

The residents of Kings County play an important role in managing an extreme heat event by ensuring that they and their families are prepared before an event takes place and knowing what to do during an extreme heat event. All residents of Kings County need to be prepared to care of themselves and their family for up to 72 hours or longer.



Resources on how to stay safe when extreme heat threatens are available on the Government of Canada website Extreme Heat: Heat Waves (Annex E)

3.4.2 Businesses

An extreme heat event may negatively impact service provision by businesses as well as affect the health of employees. Preparing the workforce, building safe facilities, investing in supplier relationships, and connecting to the community are essential to building business community resilience. Businesses within Kings County are encouraged to develop and maintain comprehensive business emergency response plans which include a business impact analysis, business continuity plan and a training and exercise schedule to evaluate the recovery strategies and the plan. Information for developing a Business Continuity Plan can be found on the website of the Department of Public Safety and Emergency Preparedness.

3.5 Phase I – Pre-Season Readiness

These Action Checklists may be used when an Extreme Heat Incident is at Phase I – Pre-Season Readiness

KINGS REMO

- ☐ Conduct pre-season meeting with stakeholders to review plans and confirm actions.
- ☐ Update and validate communication methodologies with stakeholders.
- ☐ Monitor Early Notifications and Heat Warnings from Environment Canada throughout the season.
- ☐ Coordinate Public Information campaign including updating websites, county-wide social media messages, and preparing handouts for County Departments to distribute.

MUNICIPAL UNITS (Municipality of the County of Kings, Towns of Berwick, Kentville, Wolfville)

- ☐ Verify list of Cooling Centres for municipalities
  - Name of Facility
  - Address
  - Hours of Operation
  - Will facility extend hours during a heat incident
- ☐ Coordinate with managers and owners of Cooling Centres that their information may be publicized during a heat incident.
- ☐ Identify and discuss transportation methods that may be used in Phase II and Phase III for Cooling Centres.
- ☐ Identify communication methodology and transportation methods for local vulnerable populations.
- ☐ Participate in providing consistent media campaign messages via webpage, fliers, and social media platforms.

EMERGENCY SOCIAL SERVICES (ESS)

- ☐ Verify list of Cooling Centres for County facilities.
  - Name of Facility
  - Address
  - Hours of Operation
  - Will facility extend hours during a heat incident
- ☐ Coordinate with managers and owners of Cooling Centres that their information may be publicized during a heat incident.
- ☐ Coordinate with agencies that service people with disabilities and access and functional needs.

NS HEALTH

- ☐ Provide initial risk communication and public information that may be duplicated, and that jurisdictions and agencies may share with vulnerable populations.
- ☐ Discuss developing and/or updating public outreach materials.
- ☐ Identify information that may be shared via social media.
- ☐ Identify and verify list of medically fragile and vulnerable populations (e.g. socially isolated individuals, elderly, outside labourers) and coordinating agencies.

- ☐ Coordinate with County Departments that provide services to medically fragile and vulnerable populations.

NON-GOVERNMENT AGENCIES (including but not limited to Canadian Red Cross)

- ☐ Identify capabilities to support local government and communities during a heat incident.
- ☐ Identify communication and monitoring methods for vulnerable populations that the NGO serves.
- ☐ Help identify other partner agencies.

3.6 Phase II – Heat Advisory

These Action Checklists may be used when an Extreme Heat Incident has reached Phase II – Heat Advisory of Extreme Temperatures.

KINGS REMO / ECC MANAGER

- ☐ Review Emergency Coordination Centre (ECC) Position Checklists.
- ☐ Participate in periodic or daily calls as needed with County agencies regarding weather and power updates.
- ☐ Coordinate between Kings County REMO, the NS Health Authority, Emergency Social Services, Department of Community Services, NS Department of Agriculture, Community Based Organizations (CBOs), Faith Based Organizations (FBOs), and First Responder Agencies regarding potential convening of the Regional Emergency Management Planning Committee (REMPC) to consider response actions.

REMPC

- ☐ Conduct Threat Assessment

INFORMATION OFFICER

- ☐ Review Information Officer Position Checklist in Emergency Coordination Centre.
- ☐ Increase public information efforts including Social Media and Municipal websites
- ☐ Consider methods to alert and warn vulnerable populations.
- ☐ Release pre-scripted heat protective measures to all media sources.
- ☐ Publicize and communicate Cooling Centre locations.
- ☐ Publicize that fans alone are insufficient for extended periods of excessive indoor heat.
- ☐ Publicize request for citizens and agencies to enhance checks on homebound individuals.
- ☐ Consider use of 2-1-1 for public phone contact.
- ☐ Consider use of Volunteers for public hotline or door-to-door contact.

LIAISON OFFICER

- ☐ Review Liaison Officer Position Checklist in Emergency Coordination Centre.
- ☐ Ensure employees have updated heat emergency materials.
- ☐ Coordinate with NS Power and Berwick Electric to assess power restrictions or limitations.

HEALTH BRANCH

- ☐ Review Medical Health Branch Position Checklist in Emergency Coordination Centre.
- ☐ Initiate or continue risk communication efforts to vulnerable populations as outlined in Phase I.

- ☐ Initiate medical surveillance specific to heat impacts including long-term care facilities, skilled nursing facilities, and dialysis centres.
- ☐ Track Emergency Department visits and EHS calls.
- ☐ Track heat related fatalities, medical emergencies and ambulance runs.
- ☐ Advise at-risk medical facilities to monitor ambient indoor temperature.
- ☐ Prepare Public Health staff for possibility of Cooling Centre coordination and support.

AGRICULTURE BRANCH

- ☐ Review Agriculture Branch Position Checklist in Emergency Coordination Centre.
- ☐ Monitor impacts to agriculture including animal mortality, rendering plant impacts, and coordination with industry

CARE AND SHELTER BRANCH

- ☐ Review Care and Shelter Branch Position Checklist in Emergency Coordination Centre.
- ☐ Coordinate with the managers and owners of any Cools Centres being considered for publication.
- ☐ Consider need for activating Cooling Centres.
- ☐ Identify potential Cooling Centre sites and needed staffing.
- ☐ Coordinate with Animal Services for care and shelter of pets.
- ☐ Coordinate with agencies that service people with disabilities and access and functional needs.

LOGISTICS SECTION

- ☐ Review Logistic Section Coordinator Position Checklist in Emergency Coordination Centre.
- ☐ Develop a transportation working group consisting of public, private, volunteer and service organizations to identify and develop a transportation component and procedures to ensure vulnerable populations are provided transportation to Cool Centres

PLANNING/INTELLIGENCE SECTION

- ☐ Review Planning/Intelligence Section Position Checklist in Emergency Coordination Centre.
- ☐ Confirm details of agency participation, staffing.
- ☐ Consider long-term planning needs including advanced planning for extended incident.
- ☐ Develop ECC Incident Action Plan (IAP)

3.7 Phase III – Heat Warning

These Action Checklists may be used in addition to the Phase II Checklist when a Heat Warning has reached Phase III – Heat Warning.

KINGS REMO / ECC MANAGER

- ☐ Review ECC Manager Position Checklist in Emergency Coordination Centre.
- ☐ Increase coordinating calls with local, regional, and Provincial resources

POLICY GROUP

- ☐ Review Kings County Policy.
- ☐ Conduct Threat Assessment.
- ☐ Determine need to activate the Emergency Coordination Centre (ECC)

- ☐ Identify any regulatory or ordinance issues that may need to be suspended

INFORMATION OFFICER

- ☐ Review Public Information Officer Position Checklist in Emergency Coordination Centre.
- ☐ Increase and continue public information efforts.
- ☐ Consider activating community information and public health call lines.

LIAISON OFFICER

- ☐ Review Liaison Position Checklist in Emergency Coordination Centre.
- ☐ Ensure employees have updated heat emergency materials.

OPERATIONS SECTION

- ☐ Review Operations Section Coordinator Position Checklist in Emergency Coordination Centre.
- ☐ Determine need for mutual aid resources.

MEDICAL HEALTH BRANCH

- ☐ Review Medical Health Branch Position Checklist in Emergency Coordination Centre.
- ☐ Conduct bed polling status of hospitals and skilled nursing facilities and monitor status of all medical facilities.
- ☐ Track Emergency Department Visits and EHS calls.
- ☐ Track heat related fatalities and morbidity.
- ☐ Establish communication with local dialysis centres if there is concern regarding potential power outages.
- ☐ Monitor for medical impacts of prolonged power outages or rolling blackouts

AGRICULTURE BRANCH

- ☐ Review Agriculture Branch Position Checklist in Emergency Coordination Centre.
- ☐ Monitor rendering capacity County-wide

CARE AND SHELTER BRANCH

- ☐ Review Care and Shelter Branch Position Checklist in Emergency Coordination Centre.
- ☐ Consider activating Cooling Centres.
- ☐ Coordinate with Canadian Red Cross to open Cooling Centres.
- ☐ Coordinate with Animal Services to ensure pet and animal heat impacts are being addressed through special facilities or pet accommodations at Cooling Centres or other locations.
- ☐ Monitor Cooling Centres and provide regular updates on numbers of persons at each, access and functional needs, support issues, and power availability.
- ☐ Ensure that Cooling Centres know the importance of maximizing fluid dissemination and minimizing food.
- ☐ Develop process to check on shut-in or vulnerable populations

LOGISTICS SECTION

- ☐ Review Logistic Section Position Checklists in Emergency Coordination Centre.
- ☐ Identify transportation resources for Cooling Centres

PLANNING/INTELLIGENCE SECTION

- ☐ Review Planning/Intelligence Section Checklists in Emergency Coordination Centre.
- ☐ Confirm details of agency participation, staffing.
- ☐ Consider GIS function for mapping heat related trends and/or fatalities.
- ☐ Develop ECC Incident Action Plan (IAP)

3.8 Phase IV – Heat Wave

These Action Checklists may be used in addition to the Phase III Checklist when a Heat Warning has reached Phase IV – Heat Wave.

KINGS REMO / ECC MANAGER

- ☐ Review ECC Manager Position Checklist in Emergency Coordination Centre.
- ☐ Review Phase III Checklist.
- ☐ Increase coordinating calls with local, regional and Provincial resources
- ☐ Determine need / level for ECC Activation
    - Level 1 – Monitoring (Key personnel only)
    - Level 2 – Partial Activation (Key personnel and personnel from responding agencies)
    - Level 3 – Full Activation (all personnel)

POLICY GROUP

- ☐ Review Kings County Policy.
- ☐ Conduct Threat Assessment.
- ☐ Consider declaring a State of Local Emergency
- ☐ Identify any regulatory or ordinance issues that may need to be suspended

INFORMATION OFFICER

- ☐ Review Public Information Officer Position Checklist in Emergency Coordination Centre.
- ☐ Increase and continue public information efforts.
- ☐ Consider activating community information and public health call lines.

LIAISON OFFICER

- ☐ Review Liaison Position Checklist in Emergency Coordination Centre.
- ☐ Ensure employees have updated heat emergency materials.

OPERATIONS SECTION

- ☐ Review Operations Section Coordinator Position Checklist in Emergency Coordination Centre.
- ☐ Determine need for mutual aid resources.

MEDICAL HEALTH BRANCH

- ☐ Review Medical Health Branch Position Checklist in Emergency Coordination Centre.
- ☐ Conduct bed polling status of hospitals and skilled nursing facilities and monitor status of all medical facilities.
- ☐ Track Emergency Department Visits and EHS calls.
- ☐ Track heat related fatalities and morbidity.

- ☐ Establish communication with local dialysis centres if there is concern regarding potential power outages.
- ☐ Monitor for medical impacts of prolonged power outages or rolling blackouts

AGRICULTURE BRANCH

- ☐ Review Agriculture Branch Position Checklist in Emergency Coordination Centre.
- ☐ Monitor rendering capacity County-wide

CARE AND SHELTER BRANCH

- ☐ Review Care and Shelter Branch Position Checklist in Emergency Coordination Centre.
- ☐ Consider activating Cooling Centres.
- ☐ Coordinate with Canadian Red Cross to open Cooling Centres.
- ☐ Coordinate with Animal Services to ensure pet and animal heat impacts are being addressed through special facilities or pet accommodations at Cooling Centres or other locations.
- ☐ Monitor Cooling Centres and provide regular updates on numbers of persons at each, access and functional needs, support issues, and power availability.
- ☐ Ensure that Cooling Centres know the importance of maximizing fluid dissemination and minimizing food.
- ☐ Develop process to check on shut-in or vulnerable populations

LOGISTICS SECTION

- ☐ Review Logistic Section Position Checklists in Emergency Coordination Centre.
- ☐ Identify transportation resources for Cooling Centres

PLANNING/INTELLIGENCE SECTION

- ☐ Review Planning/Intelligence Section Checklists in Emergency Coordination Centre.
- ☐ Confirm details of agency participation, staffing.
- ☐ Consider GIS function for mapping heat related trends and/or fatalities.
- ☐ Develop ECC Incident Action Plan (IAP)

3.9 Phase V – Demobilization

KINGS REMO / ECC MANAGER

- ☐ Upon confirmation that the Heat Warning/Heat Wave has ended, communicate this information to community partners
- ☐ A level II, III or IV response should only be deactivated on a day in which Environment Canada's 2-day forecast (i.e., today and tomorrow) does not exceed the thresholds of temperature or humidex.

POLICY GROUP

- ☐ Deactivate the Kings REMO Emergency Coordination Centre

INFORMATION OFFICER

- ☐ The demobilization news release will:
    - Announce the end of the Heat Warning/Heat Wave
    - Specify criteria upon which the deactivation is based
    - Specify the need for continued vigilance against heat-related health effects within vulnerable populations as there can be a lag period between exposure to heat and ill health effects
    - Provide directions on where the public may obtain additional information
    - Announce the closure of cooling centres.

LIAISON OFFICER

- ☐ Obtain After Action Review information from supporting agencies

OPERATIONS SECTION

- ☐ Direct closure of cooling centres

MEDICAL HEALTH BRANCH

- ☐ Confirm that hot weather has ended

4.0 PUBLIC EDUCATION & AWARENESS OF EXTREME HEAT INCIDENTS

4.1 Emergency Public Information

Timely and effective communication of information to the public and between participating agencies is critical during a Heat Warning. During or immediately following a public emergency, critical information may be disseminated by the Information Officer (IO) or the Incident Commander through a variety of methods including, but not limited to:

- Press Conferences
- Press Releases
- Operational Area Briefings
- Partner E-mails
- Conference Calls
- Mass Notifications
  (Kings REMO Emergency Email Notification System)
- Municipal Websites & Social Media
- Phone banks

Communications materials should be distributed before and during extreme heat events. Municipal Websites may be updated with heat health messaging, including 'look out for each other', and which medications might put people at great risk of heat related complications. Paper materials may also be distributed to senior and community centres, schools, low-income housing areas, pharmacies and medical centres, as well as outdoor events.

Printed materials should inform citizens of the location of cooling centres and public water fountains, and information about transport to get there.

During a heat warning, heat wave, including compounding factors such as power outages, water shortages or boil water advisories, or air quality alerts, should also be sent out to media outlets and internal staff.

Outdoor municipal workers should be alerted that they may be at higher risk for heat illness and be trained to monitor outdoor spaces for people experiencing heat-related illnesses.

4.2 Public Safety Tips

Heat illnesses are preventable. During extreme heat, the most important thing is to keep cool and stay hydrated. The following safety steps can be communicated to the public to protect them and their families in very hot weather.

Know the Risks	• Hot temperatures can be dangerous • Heat illnesses can affect you quickly and are mainly caused by over-exposure to heat or over-exertion in the heat
Prepare for the Heat	• Tune in regularly to local weather forecasts & alerts • Arrange for regular visits • If you have an air conditioner, make sure it works properly
Pay Close Attention to how you feel	• Watch for symptoms of heat illness • Heat stroke is a medical emergency! Call 911 immediately
Stay Hydrated	• Drink plenty of cool liquids before you feel thirsty • Thirst is not a good indicator of dehydration.
Stay Cool	• Dress for the weather • Keep your home cool
Avoid Exposure to very Hot Temperatures	• Never leave people or pets in your care inside a parked vehicle or in direct sunlight • Plan outdoor activities during cooler parts of the day • Avoid sun exposure

4.2.1 Know the Risks

- Hot temperatures can be dangerous
- Heat illnesses can affect you quickly and are mainly caused by over-exposure to heat or over-exertion in the heat.

4.2.2 Prepare for the Heat

- **Tune in regularly to local weather forecasts and alerts** so you know when to take extra care.
- **Arrange for regular visits** by family members, neighbours or friends during very hot days in case you need help. Visitors can help identify signs of heat illness that could be missed over the phone.
- **Find ways to keep cool** before the hot weather starts. If you have an air conditioner, make sure it works properly. If you have ceiling fans or other fans they can help if the humidity isn't high. Find an air-conditioned spot close by where you can cool off for a few hours on very hot days. This will help you cope with the heat.
- **Have cool drinks in your vehicle** and keep your gas tank topped up.

4.2.3 Pay Close Attention to How You – And Those Around You - Feel

Watch for symptoms of heat illness, which include:

- dizziness or fainting
- nausea or vomiting
- headache
- rapid breathing and heartbeat
- extreme thirst (dry mouth or sticky saliva)
- decreased urination with unusually dark yellow urine
- changes of behaviour in children (like sleepiness or temper tantrums)

Heat Stroke is a medical emergency!

Call 9-1-1 immediately if you are caring for someone who has a high body temperature and is either unconscious, confused or has stopped sweating

If you have any of these symptoms during extreme heat, move to a cool place and drink liquids right away. Water is best.

While waiting for help - **cool the person right away by**:

- moving them to a cool place, if you can
- applying cold water to large areas of their skin or clothing
- fanning the person as much as possible

4.2.4 Stay Hydrated

Drink plenty of cool liquids (especially water) **before you feel thirsty** to decrease your risk of dehydration (not having enough fluids in your body). Thirst is not a good indicator of dehydration.

- Remind yourself to drink water by leaving a glass by the sink.
- Flavouring water with natural fruit juice may make it more appealing.
- Eat more fruits and vegetables as they have a high-water content.
- If you eat less, you may need to drink more water.
- Drink water before, during and after physical activity.

4.2.5 Stay Cool

Dress for the weather

- Wear loose-fitting, light-coloured clothing and a wide-brimmed hat made of breathable fabric.
- When you buy sunglasses, make sure they provide protection against both UVA and UVB rays.

Take a break from the heat

- If you must do physical activity in extreme heat, take extra breaks, remove gear to let your body cool off and drink lots of water. Don't expect your usual performance in hot weather. Give your body time to recover after being in the heat.

Did you know?

Your body is not used to (not acclimatized to) extreme heat at the beginning of the summer. If you are physically active, you are also not acclimatized if you don't exercise regularly during hot weather.

Keep your home cool

- Aim to keep your living space cool. Check the room temperature between 08:00 and 10:00, at 13:00 and at night after 22:00. Ideally, the room temperature should be kept below 32 °C during the day and 24 °C during the night. This is especially important for infants or people who are over 60 years of age or have chronic health conditions.
- Use the night air to cool down your home. Open all windows and shutters during the night and the early morning, when the outside temperature is lower (if safe to do so).
- Reduce the heat load inside the apartment or house. Close windows and shutters (if available) especially those facing the sun during the day. Turn off artificial lighting and as many electrical devices as possible.
- Hang shades, draperies, awnings or louvers on windows that receive morning or afternoon sun.
- Hang wet towels to cool down the room air. Note that the humidity of the air increases at the same time.
- If your residence is air conditioned, close the doors and windows and conserve electricity not needed to keep you cool, to ensure that power remains available and reduce the chance of a community-wide outage.
- Electric fans may provide relief, but when the temperature is above 35 °C, may not prevent heat-related illness. It is important to drink fluids.

If your home is extremely hot

- Take cool showers or baths until you feel refreshed.
- Use a fan to help you stay cool and aim the air flow in your direction.
- Spend a few hours in a cool place. It could be a tree-shaded area, swimming facility or an air-conditioned spot like a shopping mall, grocery store, or public library.

4.2.6 Avoid Exposure to Extreme Heat when Outdoors

Never leave people or pets inside a parked vehicle or in direct sunlight.

- When the outside air temperature is 23°C/73°F, the temperature inside a vehicle can be extremely dangerous - more than 50°C/122°F.

Reschedule or plan outdoor activities during cooler parts of the day.

- Before heading out, check the Air Quality Health Index in your area, if available. Air pollution tends to be at higher levels during very hot days.
- Plan strenuous outdoor activities for cooler days or choose a cooler location like a place with air conditioning or with tree shade.

Did you know? Sunburned skin loses its sweating efficiency. This makes it harder for your body to regulate its temperature.

Avoid sun exposure. Find or bring shade when possible.

- Tree-shaded areas can be as much as 5°C/9°F cooler than the surrounding area.
- Shade yourself by wearing a wide-brimmed, breathable hat, or using an umbrella.
- Wear loose-fitting, light-coloured clothing made of breathable fabric.
- Wear sunglasses that have UVA and UVB protection.
- Use a sunscreen with sun protection factor (SPF) 15 or higher and follow the manufacturer's directions. Don't use sunscreen on a child less than 6 months old

4.2.7 Help Others

- Plan to check on family, friends, and neighbours who spend much of their time alone. Vulnerable people might need assistance on hot days.
- Discuss extreme heat-waves with your family. Everyone should know what to do in the places where they spend time.
- If anyone you know is at risk, help him or her to get advice and support. Elderly or sick people living alone should be visited at least daily.
- If a person is taking medication, ask the treating doctor how it can influence thermoregulation and the fluid balance.
- Get training. Take a first-aid course to learn how to treat heat emergencies and other emergencies. Everyone should know how to respond.

5.0 PLAN TESTING, REVIEW & MAINTENANCE

5.1 Plan Testing Schedule & Responsibility

The Kings County Regional Emergency Management Coordinator (REMC) is responsible for coordinating the annual testing (in whole or in part) of the Kings REMO Heat Alert and Response System in order to verify its overall effectiveness and provide training to the emergency personnel. The exercise can take the form of a simple tabletop or a more elaborate functional exercise.

5.2 Plan Review & Maintenance

The Kings REMO Heat Alert and Response System (HARS) will be maintained by the Regional Emergency Management Planning Committee (REMPC) and the Regional Emergency Management Coordinator (REMC).

This Plan will be reviewed annually and, where necessary, revised by a meeting(s) of the Regional Emergency Management Planning Committee (REMPC) and the Regional Emergency Management Advisory Committee (REMAC). The Plan shall be revised subject to the approval of Municipal Councils.

REVIEWS

MONTH	DAY	YEAR	BY
June	1	2021	Kings REMO REMC

PLAN REVISIONS

MONTH	DAY	YEAR	CHANGE	APPROVED
June	16	2022	1	2022-07-18
September	15	2022	2	

6.0 DISTRIBUTION LIST

Distributed electronically:

Municipal Units:

- Municipality of the County of Kings
- Town of Berwick
- Town of Kentville
- Town of Wolfville

- Village of Aylesford
- Village of Canning
- Village of Cornwallis Square
- Village of Greenwood
- Village of Kingston
- Village of New Minas
- Village of Port Williams

Fire Departments

- Kings County Fire Departments

Regional Emergency Management Planning Committee (REMPC)

- NS EMO – Western Zone Planning Officer
- Acadia University
- Annapolis Valley Amateur Radio Club (AVARC)
- Annapolis Valley First Nation
- Annapolis Valley Regional Centre for Education (AVRCE)
- Brigadoon Village
- Community Services – Kings County
- NS Department of Natural Resources and Renewables (DNRR)
- NS Department of Public Works (DPW)
- NS Emergency Health Services
- Fire Services
- Glooscap First Nations EMO
- Kentville Police / Kings County RCMP
- Kings Transit Authority (KTA)
- NS Department of Agriculture
- NS Health
- Canadian Red Cross
- Valley Communications
- Valley Search and Rescue (VSAR)

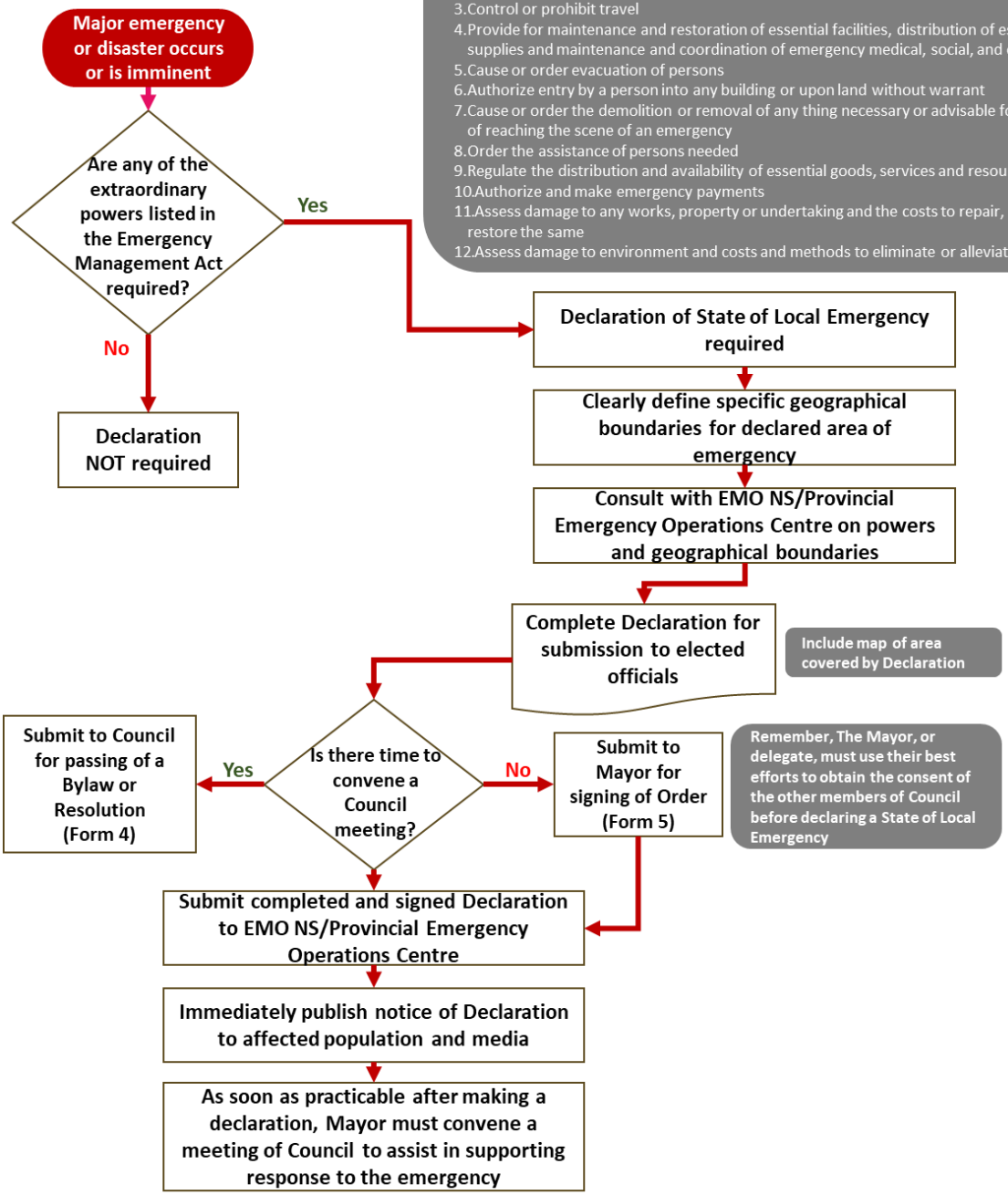
Annexes

Annex A – Declaring a State of Local Emergency (SOLE)

Declaring a State of Local Emergency

Reference: Nova Scotia Emergency Management Act
(Section 12 / Section 14 / Section 18)

Emergency Powers in Brief:
1. Acquire or utilize personal property by confiscation or any means considered necessary
2. Authorize or require a qualified person to render aid
3. Control or prohibit travel
4. Provide for maintenance and restoration of essential facilities, distribution of essential supplies and maintenance and coordination of emergency medical, social, and other services
5. Cause or order evacuation of persons
6. Authorize entry by a person into any building or upon land without warrant
7. Cause or order the demolition or removal of any thing necessary or advisable for the purpose of reaching the scene of an emergency
8. Order the assistance of persons needed
9. Regulate the distribution and availability of essential goods, services and resources
10. Authorize and make emergency payments
11. Assess damage to any works, property or undertaking and the costs to repair, replace or restore the same
12. Assess damage to environment and costs and methods to eliminate or alleviate the damage



FORM 4

DECLARATION OF A STATE OF LOCAL EMERGENCY
MUNICIPALITY: _____
Section 12(2) of the *Emergency Management Act*, S.N.S. 1990, c.8

WHEREAS the area herein described is or may soon be encountering an emergency that requires prompt action to protect property or the health, safety or welfare of persons therein;

Emergency Area:

The area general described as:

Province of Nova Scotia (hereafter
referred to as the "Designated Area(s)") **Yes** **No**

Nature of the Emergency:

AND WHEREAS the undersigned is satisfied that an emergency as defined in Section 2(b) of Chapter 8 of the Statutes of Nova Scotia, 1990, the *Emergency Management Act*, exists or may exist in the Designated Area(s) noted above;

THE UNDERSIGNED HEREBY DECLARES pursuant to Section 12(2) of the *Emergency Management Act*, a State of Local Emergency in the Municipality noted above as of and from _____ o'clock in the forenoon ( ) or afternoon ( ) of the _____ day of _____, 20____.

THIS DECLARATION OF STATE OF LOCAL EMERGENCY shall exist until _ o'clock in the forenoon ( ) or afternoon ( ) of the _____ day of _____, 20____, or for a maximum of 7 days from the date and time specified above unless the Declaration is renewed or terminated as provided in Section 20 of the *Emergency Management Act*.

DATED at _____, in the Municipality of _____, Province of Nova Scotia, this _____ day of _____, 20____.

Council, Municipality _____

Name _____

Positions _____

[Authorized by Resolution No. _____ dated the
_____ Day of _____, 20____.

FORM 5

DECLARATION OF A STATE OF LOCAL EMERGENCY
MUNICIPALITY: _____
Section 12(2) of the *Emergency Management Act*, S.N.S. 1990, c.8

WHEREAS the area herein described is or may soon be encountering an emergency that requires prompt action to protect property or the health, safety or welfare of persons therein;

Emergency Area:

The area general described as:

Province of Nova Scotia (hereafter referred to as the "Designated Area(s)") **Yes** **No**

Nature of the Emergency:

AND WHEREAS the undersigned is satisfied that an emergency as defined in Section 2(b) of Chapter 8 of the Statutes of Nova Scotia, 1990, the *Emergency Management Act*, exists or may exist in the Designated Area(s) noted above;

AND WHEREAS the Council of the Municipality is unable to act;

AND WHEREAS the undersigned has (check appropriate box)

(a) Consulted with a majority of the members of the Municipal Emergency Management Committee Yes No
(b) Found it impractical to consult with the majority of the Municipal Emergency Management Committee Yes No

THE UNDERSIGNED HEREBY DECLARES pursuant to Section 12(3) of the *Emergency Management Act*, a State of Local Emergency in the Municipality noted above as of and from _____ o'clock in the forenoon ( ) or afternoon ( ) of the _____ day of _____, 20____.

THIS DECLARATION OF STATE OF LOCAL EMERGENCY shall exist until _ o'clock in the forenoon ( ) or afternoon ( ) of the _____ day of _____, 20____, or for a maximum of 7 days from the date and time specified above unless the Declaration is renewed or terminated as provided in Section 20 of the *Emergency Management Act*.

DATED at _____, in the Municipality of _____, Province of Nova Scotia, this _____ day of _____, 20____.

Mayor's Signature _____

Municipality of _____

Annex B – Extreme Heat – Human Vulnerabilities

Heat Fatigue
Signs include impaired performance of skills, mental concentration, or vigilance. Heat fatigue is generally due to the individual not being used to working in heat.

- First Aid - There is no specific treatment except to remove the person to a cooler environment before more serious conditions develop

Heat Rashes
Most common problem. Prickly heat rash shows itself as red bumps normally where clothing is restrictive or chafes. As sweating increases the bumps begin to feel prickly. Prickly heat occurs in skin that is persistently wet from unevaporated sweat. Rash may become infected if not careful.

- First Aid - In most cases heat rash will disappear when the individual returns to a cooler environment.

Heat Collapse
In a collapse or faint, the brain does not receive enough oxygen because blood pools in the extremities. The individual may lose consciousness. The onset of collapse is rapid and unpredictable.

- First Aid - Move to cooler area, loosen clothing, and give fluids

Heat Cramps
Heat Cramps are not immediately dangerous but is a signal of significant stress on the body from heat. It occurs when the salts in the body fluids become out of balance as a result of sweating in an effort to maintain cooler temperatures during hot weather and inadequate fluid and salt replacement.

- Symptoms – Severe painful cramping of the muscles in the arms, legs or abdomen often accompanied by swelling of the legs and feet
- First Aid – Move to a cooler spot and drink electrolyte replacement fluids (juices, non-carbonated sports drinks without caffeine)
- Without intervention – It can lead to heat exhaustion and/or heat stroke

Heat Exhaustion
Heat Exhaustion is more serious and generally includes an elevated core body temperature up to 104°F. It occurs when the body becomes dehydrated with a consequential imbalance of electrolytes (salts). This causes progressive compromise of the circulatory system.

- Symptoms -- Headache, nausea, dizziness, cool and clammy skin, pale face, cramps, weakness, profuse perspiration
- First Aid -- Move to a cooler spot, drink water with a small amount of salt added (one teaspoon per quart) or rehydration solution or sports drinks without caffeine
- Without Intervention -- It can lead to collapse and heat stroke within minutes or hours

Heat Stroke

Heat Stroke is the most serious illness and is a severe and life-threatening failure of the body's ability to cool. It occurs when natural cooling mechanisms are overwhelmed, including perspiration and circulatory reflexes. Brain and nerve functions begin to fail, and the body temperature rises out of control.

- Symptoms – Severe mental status changes, seizures, loss of consciousness, kidney failure, abnormal cardiac rhythm, confusion, rapid pulse, hot and dry skin, shortness of breath, facial flushing with no perspiration, core body temperature over 104°F
- First Aid – Immediately call 9-1-1 for emergency medical assistance. Cool person immediately, move to shade or indoors, wrap in a cool, wet sheet
- Without Intervention -- it can lead to permanent neurological impairment, coma, and death

Children Vulnerabilities

Did you know there is no safe amount of time to leave any child in a car alone? Every 10 days in the U.S. a child dies when left alone in the car. Avoid heatstroke-related injury and death by never leaving your child alone in a car, not even for a minute. If you see a child alone in a car, call 911. Emergency personnel want you to call. One call could save a life.

The temperature in a car rises rapidly in the first 30 minutes, even on a cool day. Additionally, leaving the car windows open or cracking them open does not allow enough air into the vehicle.

Facts:

Car with window rolled down slightly + windows collecting light, trapping heat inside = pressure cooker effect.

Outside air = 30 degrees Celsius

- After 10 minutes: inside car = 39 degrees Celsius
- After 30 minutes: inside car = 49 degrees Celsius

Outside air = 22 degrees Celsius + humidity

- After 30 minutes: inside car = 40 degrees Celsius
- After 60 minutes: inside car = 44 degrees Celsius

Prevention:

- Never leave children in a car alone
- Call 9-1-1 immediately if you see a child alone in a car or in distress
- It takes only a body temp of 40 degrees Celsius for heat stroke to occur. 42 degrees is usually fatal
- A child's body warms up 3-5 times faster than an adult's body
- Be alert for any sign of heat stress:
- Agitation
- Disorientation
- Dizziness
- Nausea
- Rapid breathing
- Seizure
- Unconsciousness
- Vomiting

Treatment:

- Bring your child to a cooler place indoors, an air-conditioned car, or shady area
- Remove your child's excess clothing
- Encourage your child to drink cool fluids containing salt and sugar, such as sports drinks
- Put a cool, wet cloth or cool water on your child's skin
- Call your doctor for advice

Annex C – Extreme Heat – Animal Vulnerabilities

Pets

Dogs and cats are designed to conserve heat and are less efficient at cooling than humans. They are in danger of heat stroke at 43 degrees Celsius. Sweat glands on pets are located on the nose and footpads, which are inadequate for cooling on hot days. Panting and drinking water help cooling, but if the air temperature is overheated, brain and organ damage can occur in 15 minutes. Risk factors to heat stress include body size, age (young and old), breed (short nosed breeds, such as bulldogs), obesity, and existing metabolic, cardiovascular, or respiratory disease.

Facts:

Car with window rolled down slightly + windows collecting light, trapping heat inside = pressure cooker effect.

Outside air = 29 degrees Celsius

- After 10 minutes: inside car = 39 degrees Celsius
- After 30 minutes: inside car = 49 degrees Celsius

Outside air = 22 degrees Celsius + humidity

- After 30 minutes: inside car = 40 degrees Celsius
- After 60 minutes: inside car = 44 degrees Celsius

Prevention:

- Never leave pets in a car on warm days
- Call animal control or law enforcement immediately if an animal is in distress in a car
- Be alert for any sign of heat stress: heavy panting, glazed eyes, a rapid pulse, unsteadiness, a staggering gait, vomiting, deep red or purple tongue
- Never leave pets tied up without shade, air circulation, and fresh water
- Offer a cool place to rest when temperatures are uncomfortable
- If you are going to take advantage of a local cooling centre and feel the need to bring your pet, always call ahead to find out if they are able accept pets and what preparations are necessary (i.e., leash for dog, cage for cats, etc.)

Treatment:

- Overheated pets must be cooled immediately
- Move pet to shade
- Apply cool water all over body
- Apply ice packs to neck and chest area
- Allow licking ice and small amount of water (large amount will cause vomiting)
- Take to veterinarian immediately for evaluation

Livestock and Poultry

Producers should assure that all livestock and poultry are provided adequate and accessible drinking water, shade, and fans and water-cooling, where feasible.

Many producers have back-up generators for their facilities, which should be inspected to ensure operational condition in the event of rolling or rotating blackouts or power failures. Emergency power should also be available for fans and well pumps. Misters, soakers, and fans should be checked to ensure they are operational. Shade structures (especially shade cloths) should be in good repair.

During an excessive heat emergency, dairy producers have used a variety of temporary cow-cooling methods. Fire hoses can be hooked up to water trucks and used to soak the cattle. Strings of cows can be cooled in sprinkler pens, if they are not in constant use for milking. Temporary soaking lines can be devised using flexible landscaping PVC hose and high-volume emitters positioned over the cattle. Industrial fans have been rented to augment these water-cooling methods. Temporary shade structures have been erected. In general, working cattle should be avoided except in the early morning.

If producers are experiencing difficulties or delays in having dead animals picked up by rendering companies, they should immediately contact the Department of Agriculture, or Environmental Health Department and make them aware of the situation. Local officials are in a position to assist with alternate methods of disposal, including evaluating the need for declaring a State of Local Emergency.

Annex D – Cooling Centre Checklist

The following is a partial list of suggested criteria for setting up a Cooling Centre. There are no established criteria for Cooling Centres. Additionally, unless a special exemption has been given by the local utilities, facilities used as Cooling Centres are not exempt from rotating blackouts.

Important Criteria

- ☐ Cooling Centres should be a pre-identified Canadian Red Cross emergency shelter site
- ☐ Cooling or equivalent (temperature maintained at a minimum of 20°C)
- ☐ Accessible to people with disabilities
- ☐ Ample seating appropriate to the jurisdiction
- ☐ Public restrooms accessible to people with disabilities
- ☐ Access to potable water (drinking fountain, etc.)
- ☐ Access to 911 services (phone or payphone)
- ☐ Publicly advertised
- ☐ Parking access
- ☐ Proximity to public transit
- ☐ Need for Security

Suggested Criteria

- ☐ Back-up generators
- ☐ Area for pets
- ☐ Secure, facility has security service
- ☐ Communications, phone, internet access, sign-language interpreters
- ☐ Child friendly with materials for children to play with while at the Cooling Centre
- ☐ Medical personnel such as nurses and/or aides
- ☐ Capable of 24-hour, 7 days a week operation
- ☐ Large capacity
- ☐ Personnel assistance services for people with disabilities
- ☐ Available televisions, books, games
- ☐ Transportation for those lacking their own, including wheelchair accessible services
- ☐ Follow-up procedures for those in need of additional services (health care, social services)
- ☐ Adjacent pet housing resources available if needed

Annex E – Key Public Health Messages

Stay out of the Heat:

- Keep out of the sun between 11:00am and 3:00pm
- If you must go out in the heat, walk in the shade, apply sunscreen, and wear a hat and light scarf
- Avoid extreme physical exertion
- Wear light, loose-fitting cotton clothes

Cool Yourself Down

- Have plenty of cold drinks, and avoid excess alcohol, caffeine, and hot drinks
- Eat cold foods, particularly salads and fruit with a high-water content
- Take a cool shower, bath, or body wash
- Sprinkle water over the skin or clothing, or keep a damp cloth on the back of your neck

Keep Your Environment Cool:

- Keeping your living space cool is especially important for infants, the elderly or those with chronic health conditions or who can't look after themselves
- Place a thermometer in your main living room and bedroom to keep a check on the temperature
- Keep windows that are exposed to the sun closed during the day, and open windows at night when the temperature has dropped
- Close curtains that receive morning or afternoon sun, however, care should be taken with metal blinds and dark curtains, as these can absorb heat – consider replacing or putting reflective material in-between them and the window space
- Turn off non-essential lights and electrical equipment – they generate heat
- Keep indoor plants and bowls of water in the house as evaporation helps cool the air
- If possible, move into a cooler room, especially for sleeping
- Electric fans may provide some relief if temperatures are below 35 deg C

Longer-Term

- Consider putting up external shading outside windows
- Use pale, reflective external paints
- Have your loft and cavity walls insulated – this keeps the heat in when it is cold and out when it is hot
- Grow trees and leafy plants near windows to act as natural air-conditioners

Look Out for Others:

- Keep an eye on isolated, elderly, ill or very young people and make sure they can keep cool
- Ensure that babies, children, or elderly people are not left alone in stationary cars
- Check on elderly or sick neighbours, family, or friends every day during a heatwave
- Be alert and call a doctor or social services if someone is unwell or further help is needed

If You Have a Health Problem:

- Keep medicines below 25 deg C or in the refrigerator (read the storage instructions on the packaging)
- Seek medical advice if you are suffering from a chronic medical condition or taking multiple medications

If You or Others Feel Unwell:

- Try to get help if you feel dizzy, weak, anxious or have intense thirst and headache; move to a cool place as soon as possible and measure your body temperature
- Drink some water or fruit juice to rehydrate
- Rest immediately in a cool place if you have painful muscle spasms (particularly in the legs, arms or abdomen, in many cases after sustained exercise during very hot weather), and drink oral rehydration solutions containing electrolytes
- Medical attention if needed if heat cramps last more than one hour
- Consult your doctor if you feel unusual symptoms or if symptoms persist

Annex F – Heat Health Messages

Message 1: Heat illnesses are preventable.

Message 2: While extreme heat can put everyone at risk from heat illnesses, health risks are greatest for:

- older adults;
- infants and young children;
- people with chronic illnesses, such as breathing difficulties, heart conditions, or psychiatric illnesses;
- people who work in the heat;
- people who exercise in the heat;
- homeless people; and
- low-income earners.

Message 3: If you are taking medication or have a health condition, ask your doctor or pharmacist if it increases your health risk in the heat and follow their recommendations.

Message 4: Heat illnesses include heat stroke, heat exhaustion, heat fainting, heat edema (swelling of hands, feet and ankles), heat rash and heat cramps (muscle cramps). Watch for symptoms of heat illness, which include:

- dizziness or fainting;
- nausea or vomiting;
- headache;
- rapid breathing and heartbeat;
- extreme thirst; and
- decreased urination with unusually dark yellow urine.

If you experience any of these symptoms during extreme heat, immediately move to a cool place and drink liquids. Water is best.

Message 5: Heat stroke is a medical emergency! Call 911 or your local emergency number immediately if you are caring for someone, such as a neighbour, who has a high body temperature and is either unconscious, confused or has stopped sweating. While waiting for help - cool the person right away by:

- moving them to a cool place, if you can;
- applying cold water to large areas of the skin or clothing; and
- fanning the person as much as possible.

Message 6: Frequently visit neighbours, friends and older family members, especially those who are chronically ill, to make sure that they are cool and hydrated.

Message 7: Drink plenty of cool liquids, especially water, before you feel thirsty to decrease your risk of dehydration. Thirst is not a good indicator of dehydration.

Message 8: Reschedule or plan outdoor activities during cooler parts of the day.

Message 9: Wear loose-fitting, light-coloured clothing made of breathable fabric.

Message 10: Never leave people or pets in your care inside a parked vehicle or in direct sunlight.

Message 11: Take a break from the heat by spending a few hours in a cool place. It could be a tree-shaded area, swimming facility or an air-conditioned spot such as a public building, shopping mall, grocery store, place of worship or public library.

Message 12: Take cool showers or baths until you feel refreshed.

Message 13: Prepare meals that don't need to be cooked in your oven.

Message 14: Block sun out by closing awnings, curtains or blinds during the day.

Message 15: Avoid sun exposure. Shade yourself by wearing a wide-brimmed, breathable hat or using an umbrella.

Supplemental Messages

Message 17 (Heat-Health and Air Quality): Reduce strenuous activity during periods of extreme heat and plan physical activities for cooler parts of the day. Exercise in an air-conditioned place, or a cooler outdoor location such as a tree-shaded area away from high traffic to avoid high levels of air pollution. Pollution levels tend to be higher on hot days; the Air Quality Health Index can be used to determine the air quality in your neighbourhood.

Annex G – Public Service Announcements (Examples) – Extreme Heat

Keeping Cool in a Heat Wave

This is an important message from the Kings Regional Emergency Management Organization. In a heat wave, keeping your cool will keep you healthy. People and animals should stay indoors. If you don't have air-conditioning, go to the mall or the library or a community relief shelter (if activated). Remember to drink more fluids but avoid alcohol and high sugar drinks. When going out, wear light clothing and never leave any persons, especially infants or young children, or animals in a closed, parked vehicle.

Power Failures in Hot Weather

This is an important message from the Kings Regional Emergency Management Organization. In hot weather, power failures can be deadly. When the "heat is on", but the power is out, check on neighbors, relatives and others at risk, including the elderly and young children. To keep yourself and loved ones cool, drink plenty of non-alcoholic fluids, reduce activities, take cool showers or baths, wear light colored clothing and know where to go for emergency relief.

Stay Healthy and Safe in Hot Weather

This is an important message from the Kings Regional Emergency Management Organization. When you must be outdoors in hot weather, take steps to stay cool and healthy. Cut down on exercise and other hard tasks. Drink two to four glasses of cool, non-alcoholic fluids every hour. Rest often in shady areas. Wear light clothing and protect yourself from the sun with a wide brimmed hat, sunglasses and sunscreen - SPF 15 or higher.

Extreme Heat

Heat kills by pushing the human body beyond its limits. In extreme heat and high humidity, evaporation is slowed, and the body must work extra hard to maintain a normal temperature.

Most heat disorders occur because the victim has been overexposed to heat or has over-exercised for his or her age and physical condition. Older adults, young children, and those who are sick, or overweight are more likely to succumb to extreme heat.

During a Heat Wave

What you should do if the weather is extremely hot:

- Stay indoors as much as possible and limit exposure to the sun.
- Stay on the lowest floor out of the sunshine if air conditioning is not available.
- Consider spending the warmest part of the day in public buildings such as libraries, schools, movie theaters, shopping malls, and other community facilities.
- Circulating air can cool the body by increasing the perspiration rate of evaporation.
- Eat well-balanced, light, and regular meals. Avoid using salt tablets unless directed to do so by a physician.
- Drink plenty of water. Persons who have epilepsy or heart, kidney, or liver disease; are on fluid-restricted diets; or have a problem with fluid retention should consult a doctor before increasing liquid intake.
- Limit intake of alcoholic beverages.
- Dress in loose-fitting, lightweight, and light-colored clothes that cover as much skin as possible.
- Protect face and head by wearing a wide-brimmed hat.
- Check on family, friends, and neighbors who do not have air conditioning and who spend much of their time alone.
- Never leave children or pets alone in closed vehicles.
- Avoid strenuous work during the warmest part of the day. Use a buddy system when working in extreme heat and take frequent breaks.

Annex H – Frequently Asked Questions (FAQ) – Extreme Heat

What happens to the body as a result of exposure to extreme heat?

People suffer heat-related illness when the body's temperature control system is overloaded. The body normally cools itself by sweating. But under some conditions, sweating just isn't enough. In such cases, a person's body temperature rises rapidly. Very high body temperatures may damage the brain or other vital organs. Several factors affect the body's ability to cool itself during extremely hot weather. When the humidity is high, sweat will not evaporate as quickly, preventing the body from releasing heat quickly. Other conditions that can limit the ability to regulate temperature include old age, youth (age 0-4), obesity, fever, dehydration, heart disease, mental illness, poor circulation, sunburn, and prescription drug use and alcohol use.

Who is at greatest risk for heat-related illness?

Those at greatest risk for heat-related illness include infants and children up to four years of age, people 65 years of age and older, people who are overweight, and people who are ill or on certain medications.

What is heat stroke?

Heat stroke is the most serious heat-related illness. It occurs when the body becomes unable to control its temperature: the body's temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. Body temperature may rise to 40°C or higher within 10 to 15 minutes. Heat stroke can cause death or permanent disability if emergency treatment is not provided.

What are the warning signs of a heat stroke?

Warning signs of heat stroke vary but may include the following:

- An extremely high body temperature (above 39°C)
- Red, hot, and dry skin (no sweating)
- Rapid, strong pulse
- Throbbing headache
- Dizziness
- Nausea
- Confusion
- Unconsciousness

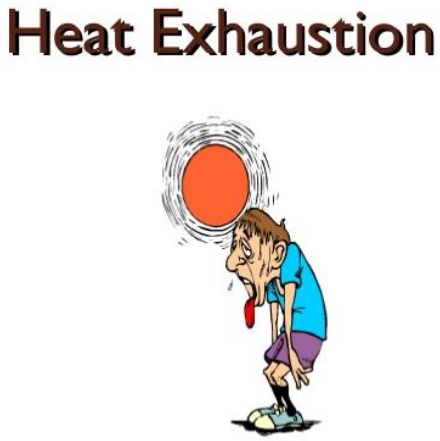
What should I do if I see someone with any of the warning signs of heat stroke?

If you see any of these signs, you may be dealing with a life-threatening emergency. Have someone call for immediate medical assistance while you begin cooling the victim. Do the following:

- Get the victim to a shady area.
- Cool the victim rapidly, using whatever methods you can. For example, immerse the victim in a tub of cool water; place the person in a cool shower; spray the victim with cool water from a garden hose; sponge the person with cool water; or if the humidity is low, wrap the victim in a cool, wet sheet and fan him or her vigorously.
- Monitor body temperature and continue cooling efforts until the body temperature drops to 38-39°C.
- If emergency medical personnel are delayed, call the hospital emergency room for further instructions.
- Do not give the victim alcohol to drink.
- Get medical assistance as soon as possible.

What is heat exhaustion?

Heat exhaustion is a milder form of heat-related illness that can develop after several days of exposure to high temperatures and inadequate or unbalanced replacement of fluids. Those most prone to heat exhaustion are elderly people, those with high blood pressure, and those working or exercising in a hot environment.



What are the warning signs of heat exhaustion?

The warning signs of heat exhaustion include the following:

- Heavy sweating
- Paleness
- Muscle cramps
- Tiredness
- Weakness
- Dizziness
- Headache
- Nausea or vomiting
- Fainting

The skin may be cool and moist. The pulse rate will be fast and weak, and breathing will be fast and shallow. If heat exhaustion is untreated, it may progress to heat stroke. See medical attention if symptoms worsen or last longer than one hour.

What steps can be taken to cool the body during heat exhaustion?

- Drink cool, non-alcoholic beverages.
- Rest.
- Take a cool shower, bath, or sponge bath.
- Seek an air-conditioned environment.
- Wear lightweight clothing.

What are heat cramps and who is affected?

Heat cramps are muscle pains or spasms – usually in the abdomen, arms, or legs – that may occur in association with strenuous activity. People who sweat a lot during strenuous activity are prone to heat cramps. This sweating depletes the body's salt and moisture. The low salt level in the muscles causes painful cramps. Heat cramps may also be a symptom of heat exhaustion. If you have heart problems or are on a low-sodium diet, seek medical attention for heat cramps.

What should I do if I have heat cramps?

If medical attention is not necessary, take the following steps:

- Stop all activity and sit quietly in a cool place.
- Drink clear juice or a sports beverage.
- Do not return to strenuous activity for a few hours after the cramps subside because further exertion may lead to heat exhaustion or heat stroke.
- Seek medical attention for heat cramps if they do not subside in 1 hour.

What is heat rash?

Heat rash is a skin irritation caused by excessive sweating during hot, humid weather. It can occur at any age but is most common in young children. Heat rash looks like a red cluster of pimples or small blisters. It is more likely to occur on the neck and upper chest, in the groin, under the breasts, and in elbow creases.

What is the best treatment for heat rash?

The best treatment for heat rash is to provide a cooler, less humid environment. Keep the affected area dry. Dusting powder may be used to increase comfort.

Can medications increase the risk of heat-related illness?

The risk for heat-related illness and death may increase among people using the following drugs: (1) psychotropics, which affect psychic function, behavior, or experience (e.g. haloperidol or chlorpromazine); (2) medications for Parkinson's disease, because they can inhibit perspiration; (3) tranquilizers such as phenothiazines, butyrophenones, and thiozanthenes; and (4) diuretic medications or "water pills" that affect fluid balance in the body.

How effective are electric fans in preventing heat-related illness?
Electric fans may provide comfort, but when the temperature is in the high 30s, fans will not prevent heat-related illness. Taking a cool shower or bath or moving to an air-conditioned place is a much better way to cool off. Air conditioning is the strongest protective factor against heat-related illness. Exposure to air conditioning for even a few hours a day will reduce the risk for heat-related illness. Consider visiting a shopping mall or public library for a few hours.

How can people protect their health when temperatures are extremely high?
Remember to keep cool and use common sense. Drink plenty of fluid, replace salts and minerals, wear appropriate clothing and sunscreen, pace yourself, stay cool indoors, schedule outdoor activities carefully, use a buddy system, monitor those at risk, and adjust to the environment.

How much should I drink during hot weather?
During hot weather you will need to increase your fluid intake, regardless of your activity level. Don't wait until you're thirsty to drink. During heavy exercise in a hot environment, drink enough non-alcoholic cool fluids each hour to maintain normal color and amount of urine output.

Should I take salt tablets during hot weather?
Do not take salt tablets unless directed by your doctor. Heavy sweating removes salt and minerals from the body. These are necessary for your body and must be replaced. The easiest and safest way to do this is through your diet. Drink fruit juice or a sports beverage when you exercise or work in the heat.

What is the best clothing for hot weather or a heat wave?
Wear as little clothing as possible when you are at home. Choose lightweight, light-colored, loose-fitting clothing. In the hot sun, a wide-brimmed hat will provide shade and keep the head cool. If you must go outdoors, be sure to apply sunscreen 30 minutes prior to going out and continue to reapply according to the package directions. Sunburn affects your body's ability to cool itself and causes a loss of body fluids. It also causes pain and damages the skin.

What should I do if I work in a hot environment?
Pace yourself. If you are not accustomed to working or exercising in a hot environment, start slowly and pick up the pace gradually. If exertion in the heat makes your heart pound and leaves you gasping for breath, STOP all activity. Get into a cool area or at least in the shade, and rest, especially if you become lightheaded, confused, weak, or faint.

Annex I – Glossary of Terms & Definitions

Advisory	Means actual or expected weather conditions may cause general inconvenience or concern, but do not pose a serious enough threat to warrant a weather warning. Examples of advisories include Air Quality Advisory, Humidex Advisory, Dust Storm Advisory, and Cold Wave Advisory. An advisory may also be used when conditions show signs of becoming favourable for severe weather when the situation is not definite enough or too far in the future to justify a warning.
Cooling Centre	A Cooling Centre is a temporary air-conditioned public space set up by local authorities to deal with the health effects of extreme heat over an extended period of time. Cooling Centres are meant to prevent hyperthermia, especially among the elderly without air conditioning at home. Cooling Centres provide shade, water, and sometimes medical attention, along with referrals to social services.
ECCC	Environment and Climate Change Canada
Excessive Heat Wave	Term used by some public health authorities in Canada, to designate excessive heat over two to three days or more that can cause a high risk of excess mortality and other potential health impacts.
Heat Cramps	Painful and often incapacitating cramps in muscles. Heat cramps are caused by depletion of salt in the body as a result of heavy sweating, and ingestion of water without replacing salt.
Heat Exhaustion	Weakness, lassitude, dizziness, visual disturbance, feeling of intense thirst and heat, nausea, vomiting, palpitations, tingling and numbness of extremities after exposure to a hot environment.
Heat Stroke	Acute illness caused by overexposure to heat. Symptoms are dry, hot skin, high body temperature (usually over 40 deg C) and mental dysfunction.
Heat Warning	Issued by Environment and Climate Change Canada to inform the public when air temperature and/or humidex are forecast to be above defined criteria for tow consecutive days so that the public can take action to protect themselves from the risks associated with extreme heat. Criteria for issuing a Heat Warning in Nova Scotia: • Issued when 2 or more consecutive days of daytime maximum temperatures are expected to reach 29°C or warmer and nighttime minimum temperatures are expected to fall to 16°C or warmer. Or • Issued when 2 or more consecutive days of humidex values are expected to reach 36 or higher.

Humidex

This is a way of expressing what hot, humid weather really feels like. The air of a given temperature and humidity is equated in terms of comfort to air with a higher temperature and low humidity. Some people are uncomfortable when the humidex is 30°C. Most people are uncomfortable when the humidex is above 40°C or 45°C.

Environment Canada uses humidex ratings to inform the general public when conditions of heat and humidity are possibly uncomfortable:

Humidex Range	**Degree of Comfort**
20-29	Comfortable
30-39	Some Discomfort
40-45	Great Discomfort; Avoid Exertion
Above 45	Dangerous; Heat Stroke Possible

Humidity

The humidity is the measure of how much water vapour the air contains.

Tmax

Maximum daily temperature

Tmin

Minimum daily temperature

Annex J – Resources

International

- World Health Organization
  - Heat and Health, 2018-06-01

National

- Health Canada
  - Protect Yourself from Extreme Heat
  - Heat Alert and Response Systems to Protect Health: Best Practices Guidebook
  - It's Way too Hot – Protect Yourself from Extreme Heat
  - Keep Children Cool – Protect Your Child from Extreme Heat
  - You're Active in the Heat. You're at Risk – Protect Yourself from Extreme Heat
  - Acute Care during Extreme Heat: Recommendations and Information for Health Care Workers
  - Health Facilities Preparation for Extreme Heat: Recommendations for Retirement and Care Facility Managers
  - Infographic: Staying Healthy in the Heat

- National Collaborating Centre for Environmental Health
  - Health Checks During Extreme Heat Events, 2022-06-22

Provincial

- Province adopts new Heat Alert System, June 29, 2018
- Government of Nova Scotia – Heat-Related Illnesses: Prevention and Treatment

Articles

- Heat Alert and Response Systems in Urban and Rural Canada
- Climate change, extreme heat and health – Protecting Canadians from the health impacts of extreme heat, Science media Centre of Canada


KINGS COUNTY, REGIONAL EMERGENCY MANAGEMENT ORGANIZATION
KNOW THE RISKS
MAKE A PLAN
GET A KIT
Kings County
berwick
Kentville
wolfville
REMO