

# Kings County, NS Wildfire Preparedness & Response Plan (WPRP)

June 2024 (Change 2)



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#### **FOREWORD**

The development of a Kings County Regional Wildfire Preparedness and Response Plan (WPRP) is paramount to public safety in the case of man-made disasters and natural disaster threats. The Kings County Regional Wildfire Preparedness and Response Plan was prepared in consultation with County and Municipal stakeholders responsible for everyday management throughout Kings County. It serves as Kings County's Emergency Wildfire Plan to coordinate an integrated approach to Wildfire response.

As a Supporting Plan to the Kings REMO Regional Emergency Management Plan, the Kings County Regional Wildfire Preparedness and Response Plan is augmented by the Emergency Coordination Centre (ECC) Operational Guidelines and Evacuation Guidelines in order to provide the level of detail required for a comprehensive emergency response to a Wildfire event.

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

#### 1.0 INTRODUCTION

# 1.1 Background

Fire has been a factor in the forests of Nova Scotia since there have been trees here. It plays a role in the "look" of the landscape although its role is somewhat changed now with the effects of fire suppression and human settlement.

Fire locations are closely tied to where people live. Densely populated areas frequently have many fires, while remote areas have few. Relatively few (about 3%) fires are started by lightning. The frequency of fires changes throughout the fire season (April to October). May is usually the busiest month due to the fact that vegetation hasn't fully come out of dormancy and begun to grow. The moisture content of these fuels is low, making them are more flammable. This is known as a "before green up" condition.

Nova Scotia has a relatively wet climate, thus the number of fires that typically occur in an average season is low compared to drier provinces

This Regional Wildfire Preparedness and Response Plan is only one part of preparedness efforts that include training, exercises and the debriefing of actual events. As Kings County evolves, so should the Wildfire Plan, which will be regularly reviewed and adapted. Due to the nature of major emergencies, there may be a need to adapt the plan during a wildfire. Therefore, the following plan should not be seen as a final, rigid solution, but rather the foundation for continuous planning efforts



#### 1.2 Authorities

The authority for an evacuation is afforded by the <u>Nova Scotia Municipal Government Act</u> and the <u>Emergency Management Act</u>.

The legal authority for local authorities to order an evacuation rests within the Nova Scotia Emergency Management Act (1990) Section 14(f) – Protection of property and health or safety

#### Protection of property and health or safety – Section 14

Upon a state of local emergency being declared in respect to a municipality or an area thereof, the mayor may, during the state of local emergency, in respect of such municipality or an area thereof, do everything necessary for the protection of property and the health and safety of persons therein may:

- a. Cause an emergency management plan or any part thereof to be implemented;
- Acquire or utilize or cause the acquisition or utilization of personal property by confiscation or any means considered necessary;
- c. Authorize or require a qualified person to render aid of such type as that person may be qualified to provide;
- d. Control or prohibit travel to or from an area or on a road, street or highway;
- e. Provide for the maintenance and restoration of essential facilities, the distribution of essential supplies and the maintenance and coordination of emergency medical, social and other essential services;
- f. Cause or order the evacuation of persons and the removal of livestock and personal property threatened by an emergency and make arrangements for the adequate care and protection thereof;
- g. Authorize the entry by a person into any building or upon land without warrant;
- Cause or order the demolition or removal of any thing where the demolition or removal is necessary or advisable for the purpose of reaching the scene of an emergency, or attempting to forestall its occurrence or of combating its progress;
- i. Order the assistance of persons needed to carry out the provisions mentioned in this Section;
- j. regulate the distribution and availability of essential goods, services and resources;
- k. authorize and make emergency payments;
- I. assess damage to any works, property or undertaking and the costs to repair, replace or restore the same;
- m. assess damage to the environment and the costs and methods to eliminate or alleviate the damage

#### 1.3 References

- Public Health Agency of Canada Emergency Lodging Service, 2007
- Nova Scotia Emergency Management Act
- Kings REMO Regional Emergency Management Plan, 2024-03 (Change 3)
- <u>Kings REMO Regional Emergency Evacuation Plan, 2022-09 (Change 1)</u>
- Kings REMO Evacuation Operational Guidelines, 2018-05-01
- Kings REMO Emergency Coordination Centre Operational Guidelines, 2018-05-01

#### 1.4 Purpose

The purpose of this plan is to outline the procedures that will be used in a wildfire event that necessitates the need for an evacuation within Kings County. The physical evacuation component of this Emergency Management Support Plan will be implemented either following the declaration of a state of local emergency or under the authority of the local Fire Service as part of a wildfire event. The monitoring and preparation phases will be



coordinated by Kings REMO in preparation to assist and liaison with emergency and essential services.

The Plan should be activated as soon as it becomes apparent that, due to an emergency of such magnitude as to warrant its implementation, evacuation and relocation of people is necessary.

# 1.5 Aim and Scope

The primary goal of this Plan 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 a wildfire event within Kings County.

This goal is supported by 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 severe injury and/or damage to property and infrastructure during a wildfire event within Kings County.

If the need to evacuate and relocate residents of the affected area(s) 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), <u>Annex A</u>, if a mandatory evacuation is needed. If there is a fire or the possibility of fire, the Fire Chief has the authority to declare the mandatory evacuation if at the current time there is no advantage to declaring a SOLE.

# 2.0 CONCEPT OF OPERATIONS (CONOPS)

# 2.1 Planning Assumptions

The plan assumes the following:

- NS Department of Natural Resources and Renewables will be the lead agency (Incident Commander) for any wildfire event within a forested area in accordance with the <u>Nova Scotia</u> Forests Act.
- Kings REMO and the Emergency Coordination Centre Management Team (ECCMT) will have the primary responsibility for mitigation, prevention, preparedness, response and recovery in wildfire emergency/disaster situations.
- It is highly probable that with events such as climate change and weather anomalies, Kings County could experience a major wildfire event to some degree in the future.
- Kings County and partner agencies will follow the response activities set out in the Kings REMO Regional Emergency Management Plan (REMP), the Regional Emergency Evacuation Plan (REEP) and Municipal Operating Procedures.
- Residents of Kings County will take active measures to protect personal property.

#### 2.2 Plan Limitations

- The Municipalities of Kings County do not currently have a formal policy for the protection
  of private property during wildfire. While efforts will be made to assist residents in the
  protection of their property during a wildfire emergency, the protection of critical municipal
  infrastructure must be the first priority to ensure continuity of municipal services to the
  community.
- There may be factors that will adversely affect Kings County's ability to respond to wildfire
  emergencies. Response may be delayed if roads become impassable, normal channels of
  communications may be disrupted and utilities may be unavailable for extended periods of
  time.

#### 2.3 Plan Activation

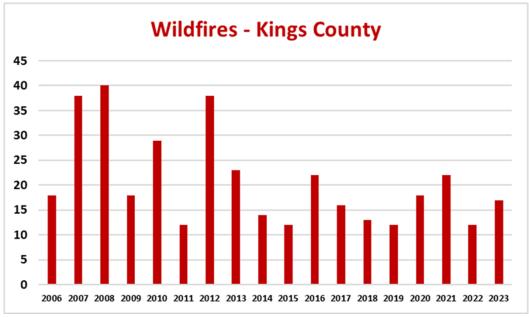
This plan may be activated in whole or in part, as required, by the Kings REMO Emergency Coordination Centre Management Team (ECCMT), with or without the formal declaration of a state of local emergency.

Upon activation, all participating agencies should respond in accordance with the procedures described within this plan and in accordance with their agency operating procedures.

# 2.3 Wildfire General Information

#### 2.3.1 Wildfire Frequency – Kings County

The average number of annual wildfires in Kings County over a 18 year period is 20 wildfires per year.



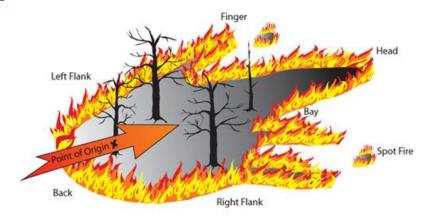
Source: Department of Natural Resources and Renewables - Fire Statistics

#### 2.3.2 Anatomy of a Forest Fire

The anatomical parts of a forest fire are:

**Bay(s)** — A marked indentation in the fire perimeter, usually located between two fingers. (Synonym: Pocket(s).)

**Finger(s)** — An elongated burned area(s) projecting from the main body of the f re resulting in an irregular f re perimeter.



**Flanks** — Those portions of the fire perimeter that are between the head and the back of the fire which are roughly parallel to the main direction of spread. (Synonym: Sides.)

**Head** — That portion of the fire perimeter having the greatest rate of spread and frontal fire intensity which is generally on the downwind and/or upslope part of the fire.

**Back** — That portion of the fire perimeter opposite the head; the slowest spreading part of the fire. (Synonyms: Base, Heel, and Rear.)

**Island(s)** — Area(s) of unburned fuels located within the fire perimeter.

**Point(s)of Origin** — The location(s) within the fire perimeter where ignition first occurred. (Synonym: Origin(s) of a Fire.)

#### 2.3.3 Wildfire Detection

The Department of Natural Resources and Renewables utilizes several methods to locate wildfires as accurately and quickly as possible.

Members of the public report wildfires on a regular basis usually via 911 as the primary contact number, and the Department of Natural Resources and Renewables maintained 1-800-565-2224 as a backup number. The information that is received is usually very accurate and, in most cases, reported during the early stages of the wildfire.

During periods of high to extreme fire hazard, fixed winged aircraft are used for aerial detection. These planes fly predetermined routes in the areas of the province that are experiencing elevated wildfire risk due to weather conditions. These flights are arranged for each day they are needed by the provincial fire duty officer. The aircraft are equipped with GPS locators. When smoke is spotted the plane flies to that location and the duty



officer can see exactly where the wildfire is by looking at the tracking monitor which shows a map of the province and the location of the aircraft. The pilot is able to communicate to the duty officer the fire size, the type of fuels burning, any values that might be threatened and if there is any suspicious activity around the fire. The duty officer can use all of this information to plan the response to the wildfire.

The average response time to a wildfire in Kings County, Nova Scotia is 2 to 25 minutes, giving a response time that is the envy of many other agencies across the country.

#### 2.3.4 Wildfire Suppression

When a wildfire is detected, the situation must be thoroughly examined to determine where the fire is and where it could spread. It is dangerous to start suppression without further investigation. Once the fire has been evaluated, decisions can be made as to what ground suppression activities are required.

Wildland fire suppression seeks to establish a control line around the fire as soon as possible, cool down open flames that are closest to the edge, and separate burning fuels (trees, shrubs, moss etc) from unburnt fuels. The most commonly used method to achieve this is to apply water through a hose line that has been pumped from a fire truck or portable pump. In Nova Scotia, we are fortunate to have an abundant supply of water.

Some fires can require a coordinated effort between several agencies. A small fire may only require the services of two people and a back tank, while a larger fire (15+ kms in length) can require hundreds of people and lots of equipment. Often, the local fire departments will be on the scene before the Department of Natural Resources. If the situation escalates, the police, ambulance services, Natural Resources and



Renewables, Kings Regional Emergency Measures Organization and other agencies may become involved.

Ground suppression activities can be rather intense when the fire's at its worse, but even after the fire's out, there can still be lots of work to do. It's possible for a fire to burn in fine combustible materials below ground without showing any signs on the surface. To prevent a flare up, hours can be spent looking for a small wisp of smoke. This could indicate a heat source below ground. If this is not done, the spark could surface and could once again become a running surface fire.

There are times when a wildland fire moves too fast or is too intense for there to be safe ground suppression. In this case, aircraft are used to slow, or cool down the fire, to allow the ground crews to resume their efforts.

The Nova Scotia Department of Natural Resources and Renewables has a fleet of five helicopters stationed in Shubenacadie. Any location in Nova Scotia can be reached within 1 hour and 45minutes from Shubenacadie. They can perform many functions such as transporting people and equipment, dropping water, and assist with reconnaissance efforts.

When all other fire fighting measures fail, the services of large, fixed wing airtankers are requested from another province. The Department of Natural Resources and Renewables' membership in the Canadian

Interagency Forest Fire Centre (CIFFC) facilitates the sharing of resources between agencies.



#### 2.4 Potential Adverse Effects Caused by Wildfires

#### 2.4.1 Heavy loss to the economy

A wildfire devastates everything that it engulfs. Thus, large areas of productive agricultural or forest land might be lost in the fire. Farmers lose their crops and livestock within a matter of a few hours to a few days and suffer a great economic setback. Those dependent on forestry for their income also experiences heavy losses. If the destroyed areas were part of a popular tourist destination, then the tourist industry active in the affected area also faces a downfall. Although these economic sectors are directly affected by the fire, other businesses and communities also experience the adverse effect of wildfires. Private properties are also lost in such fires. Direct costs associated with firefighting is also high and is usually borne by the government. Post-fire restoration activities also consume a large sum of money.

#### 2.4.2 Local Heritage could be lost

If the fire engulfs an area that protects historic environment features, it can translate to the loss of such local heritage. The damage can occur not only during the fire but also as an after-effect of the fire. The lack of vegetation might expose such features to the erosive action of wind and water, accelerating the destruction of the features.

#### 2.4.3 Carbon sequestration and storage is affected

Forests act as the carbon sink by absorbing the atmospheric carbon-dioxide and thus reducing the concentrations of this toxic gas in the atmosphere. The occurrence of wildfires thus destroys the beneficial plant cover which in turn adversely affects the carbon sequestration and storage.

# 2.4.4 Loss of Biodiversity

Wildfires lead to the failure of the entire ecosystem. Large areas are cleared off vegetation. Many animals, birds, reptiles, and insects burn to death. Others die due to starvation or stress. Thus, a heavy loss of biodiversity is one of the worst consequences of a wildfire.

#### 2.4.5 High levels of soil erosion

The soil is left exposed as vegetation disappears due to wildfires. Such soil is highly susceptible to erosion by the action of wind or water. Often, areas experiencing wildfires take a long time to recover or they are rendered permanently barren.

#### 2.4.6 High levels of air and water pollution

Smoke and ash released during fires can pollute the atmosphere with toxic gasses and particles. As an after-effect of a wildfire, the loss of plants can also lead to the erosion of the soil and the contamination of water bodies by the eroded soil and dead plant and animal matter.

#### 2.4.7 Adverse effects on health

The smoke and ash generated from wildfires pollute the atmosphere and cause health issues in people breathing in the polluted gas. Breathing problems, respiratory infections, headaches, dizziness, eye irritation, etc., are some of the common health issues experienced by people living in areas near the fire.

# 2.4.8 Increased vulnerability to other natural disasters

Since vegetation cover is vital to protect the soil against erosion by strong winds and floods, the loss of such cover renders the area prone to natural disasters. In the absence of plants, the fire-affected region becomes easily prone to catastrophic floods or storms.

#### 2.5 Wildfire Behaviour and Effects

Knowing how a wildfire may behave is key to control and management. Many factors affect how a wildfire burns, how fast it moves and how difficult it is to control. The three sides of the fire behavior triangle are weather, topography and fuels.

Weather includes wind, temperature, cloudiness, moisture and air pressure. High temperatures and low humidity cause vegetation to dry and wildfires to burn rapidly. Wind not only moves wildfires across landscapes, but also supplies oxygen that can cause fires to grow swiftly. Wind also blows embers for miles, igniting new spot fires. Rain and high humidity can slow or extinguish fires, while storms can cause fire activity to increase or become completely unpredictable.

Topography is the physical features of an area, including slope and aspect (the direction it faces). Wildfires burn more rapidly when moving up a slope by preheating unburned fuels and making them more combustible. Wind also moves more rapidly up slopes, increasing the speed at which a fire can spread. Draws can act like chimneys and funnel flames upwards. South- and west-facing slopes have drier fuels than north- and east-facing slopes.

Fuels are vegetation and structures. Their characteristics have a great effect on wildfire behavior. Large, dense trees burn for hours and generate a lot of heat. Dried grasses, on the other hand, produce a flashy fire that burns quickly and does not generate much heat.

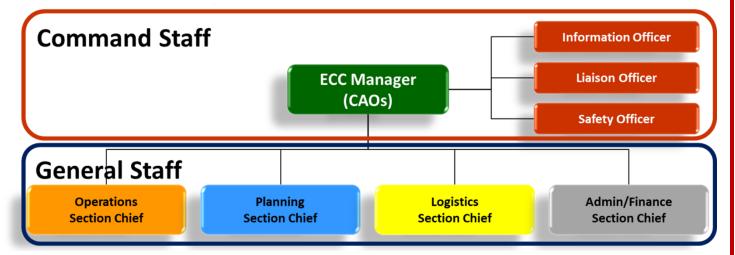
#### 2.6 Wildfire Emergency Management Priorities

In a wildfire situation, Kings REMO and its partner agencies will focus their efforts on achieving the following objectives:

- Preservation of life and safety of emergency responders, residents and visitors.
- Support for stranded and evacuated persons.
- Protection of the water supply system, sewage treatment and other critical infrastructure of the Municipalities of Kings County.
- Protection of the environment, watercourses and potable water supplies.
- Reducing the economic and social suffering and losses to the residents of Kings County where possible.
- Returning communities to normal through a coordinated recovery process that includes reentry of displaced persons.
- Reducing the impact to private property where possible and appropriate.

#### 2.7 Wildfire Organizational Structure

To support a regional wildfire incident within Kings County the Kings REMO Emergency Coordination Centre is structured under the Incident Command System:



- Incident specialists to support tactical actions
- Take all incoming calls
- Create Action Request forms and distribute to other Sections
- Follow-up with originator
- Provide IC site objectives to ECC members
- Participate in ECC briefings

- Collect, analyze, and display situation information
- Forecast plans for next operational period
- Prepare and distribute ECC Action Plan (IAP Form 201) and facilitate Action Planning process
- Track resources
- Prepare the restoration plan
- Get technical specialists

- Provide telecomm and information technology
- Locate or acquire equipment, supplies, personnel, facilities, and transportation
- Arrange for food, lodging, and other support services as required for ECC and all sites
- Coordinate with Operations to establish priorities for resources

- Maintain all financial records throughout the incident
- Record on-duty time for all personnel
- Ensure a continuum of the payroll process for all employees responding to the incident
- Process worker compensation claims
- Process travel and expense claims

# 2.8 Municipal Public Warning Strategy

As there are limited audible warning systems within the Municipalities of Kings County, the public should be alerted to wildfire conditions through local media (radio, television, newspaper) and social media (Facebook, Twitter). Warnings should 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.

#### 2.9 Recovery

The ability to recover from the physical damage, injury, economic impairment and human suffering resulting from a disaster is a critical element of any emergency program. It is essential to recognize that successful recovery planning and activities depend on the rapid start-up of a recovery plan and must begin during the emergency response phase.

Through the implementation of a municipal disaster recovery strategy, Kings County Municipalities will work with their Departments, partner agencies, and volunteer resources to restore critical infrastructure (both public and private), systematically clean up affected areas, and return the community to a state of normalcy.

The prioritization of restoration and clean up efforts will be determined by the Kings REMO ECC Management Team based on a number of influencing factors, with the primary focus being on the protection of public safety.

#### 3.0 RESPONSIBILITIES

#### 3.1 Federal

The Government of Canada's Government Operations Centre (GOC) monitors the wildfire situation across the country. The GOC coordinates the federal government's response to events of national interest such as wildfires that may affect the safety and security of Canadians or critical infrastructure. Should a provincial or territorial government request federal assistance to deal with a wildfire then the GOC would coordinate that response.

The Government of Canada has disaster assistance programs available to respond to the financial needs of provinces and territories in the wake of major natural disasters including the <u>Disaster Financial Assistance Arrangements</u>

#### 3.2 Provincial

A number of Nova Scotia government departments and agencies are engaged in wildfire prevention related activities, including:

#### 3.2.1 Nova Scotia Department of Natural Resources and Renewables (DNRR)

The Department of Natural Resources and Renewables takes a lead role in wildfire suppression on any forested lands excluding those owned municipally and federally. This can be complicated and dangerous work that usually requires a combined effort of resources. When an incident occurs, there must be a safe, effective and unified effort that minimizes damage to property while maintaining the safety of the public and fire fighters. For this reason, wildfire training is an essential part of the management responsibility carried out by the Department of Natural Resources and Renewables.



Department of Natural Resources and Renewables fire crew members receive training in basic fire suppression, wildfire behaviour, wildfire equipment, safety, and fire line organization. As the level of responsibility increases, so does the level of training. As well, staff may receive training through national and international agencies

Upon request the Department of Natural Resources and Renewables provide wildfire training to municipal fire departments, forest industry and community college students.

# 3.2.2 Department of Municipal Affairs (DMA)

Under the Federal Gas Tax Program all municipalities have submitted a Municipal Climate Change
Action Plan. Each plan outlines priorities for climate change (adaptation and mitigation) and describes
the range of actions the municipality will undertake to address climate impacts. In many communities
wildfires have been identified as a significant concern and is a top priority for taking action on climate
change adaptation.

• The eligible project categories under the Federal Gas Tax Program have been expanded to include Disaster Mitigation. Projects that reduce or eliminate long-term impacts and risks associated with natural disasters are now eligible for funding.

# 3.2.3 Nova Scotia Emergency Management Office (NS EMO)(DMA)

- <u>NS EMO</u> 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 Planning 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 is 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.

# 3.2.4 Nova Scotia Department of Public Works (NS DPW)

- NS DPW is responsible for delivering quality public infrastructure for Nova Scotia and deal with approximately 23,000 km of roads, 4,100 bridges, 7 ferries, and 2,400 buildings.
- NS DPW designs, constructs and operates this infrastructure in accordance with nationally and internationally recognized standards.
- NS DPW consults with communities on infrastructure developments. Often this infrastructure is developed or renewed in partnership with the Federal or municipal governments.

#### 3.2.6 Nova Scotia Environment (NSE)

As of July 1, 2015 the inspection, compliance and enforcement functions from several provincial government departments came together under Nova Scotia Environment.

#### 3.3 Regional – Kings REMO

#### 3.3.1 Prevention and Mitigation

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

These	strate	gies	incl	ude:
	J C. G C C	ე. ლ		

Controlling development in and around wildfire prone areas using Zoning by-laws, Official Plans
and Site Plan Development.
Working to map the wildfire areas and the impact on critical infrastructure.
Developing and circulating public education material concerning wildfire prevention and clean-
un.

# 3.3.2 Response / Recovery Responsibilities

When wildfires occur, the initial responsibility for the welfare of residents is at the Municipal level. As with any emergency, the first priority is responder and public safety. The second priority is the protection and maintenance of public critical infrastructure in order to maintain basic services (hydro, water / wastewater, gas, telecommunication systems, etc.).

When wild	fire events occur within Kings County, Kings REMO should:
	Activate the Kings REMO Wildfire Preparedness and Response Plan
	Activate the Kings REMO Regional Emergency Management Plan.
	Convene the Emergency Coordination Centre Management Team
	Appoint an Incident Commander.
	If necessary, recommend the declaration of a Municipal emergency.
	Direct and coordinate all wildfire response operations in Kings County.
	Coordinate the acquisition of emergency response equipment, personnel and other
	resources required at the incident site.
	Coordinate assistance to residents displaced by wildfire.
	Address concerns related to homes in Kings County that are on private wells or have private
	surface water intakes.
	Disseminate vital emergency information to staff, the media and citizens using appropriate
	channels.
	Provide information to the public concerning water supply safety, alternative sources of
	water, and protective actions to be taken.
	Request assistance from agencies not under Municipal control, as required (i.e. Municipal
	Mutual Assistance Agreements, Red Cross, local industry, etc.).
	Request Provincial assistance to perform specific wildfire combat / control tasks as may be
	required.
	Coordinate community disaster financial assistance (Nova Scotia Disaster Relief Assistance
_	Program) as deemed necessary.
	Facilitate arrangements for the inspection of evacuated premises and provide for their
_	orderly re-occupation as appropriate.
	Assist the Provincial authorities with damage estimation and assessment after the wildfire.
	Provide residents and businesses with information on safe handling of items damaged by
_	water / sewage.
	Explore mitigation and prevention strategies to reduce the impact of future wildfire events

3.3.3	Regional Emergency Management Coordinator (REMC)
Coordin	nate wildfire specific education materials for distribution to residents and business owners within
identifi	ed wildfire areas to include:
	The Wildfire Preparedness and Response Plan;
	<ul> <li>Established evacuation routes (minimum of two), including locations of a primary and secondary Evacuation Centre / Emergency Shelter;</li> </ul>
	Emergency preparedness and response education information for residents and businesses
	including pre-event, during an event, and post event; and
	☐ Contact information for the REMC.
	Site Operations (Incident Commander)
	ident Commander (IC) assumes responsibility for the overall coordination of all operations at the
_	ency site and is the point of contact between the ECC Management Team and site operations.
The Inc	cident Commander is responsible for:
	Identifying the wildfire risk areas.
	Prioritizing response activities.
	Evaluating and identifying equipment and resources needed
3.3.5	Fire Services
	☐ Conduct wildfire rescue, as required.
	Rescue / evacuate any persons in danger with minimum delay and provide first aid as
	necessary.
	Assist Police Services with evacuations in the affected areas as required.
	☐ Control Fires, released chemicals and other hazards.
3.3.6	Kings RCMP/Kentville Police
	Evacuate the affected areas as required.
	Perform traffic and crowd control operations.
	Disperse people not directly connected with the operations who, by their presence, are
	considered to be in danger, or whose presence hinders in any way the efficient functioning of the wildfire control operation.
	☐ Secure the affected areas (based on need and availability of staff).
	☐ Provide community security to prevent against looting and other unruly activities.
	☐ Identify and establish detour routes due to high water and maintain proper traffic flow
	patterns as deemed appropriate.

3.3.7	Infrastructure Services – Water / Wastewater				
		Implement actions to protect water and sewer systems and identify threats to drinking water.			
		Work with ECC Information Officer to advise the public of protective actions that may be			
		required in the event of damage or concerns related to the sewer systems and/or drinking water sources.			
		Request the disconnection or discontinuance of any service that may constitute a public hazard.			
		In the event a wildfire emergency results in the release of untreated or partially treated sewage into lakes and rivers, implement internal procedures and notify the Ministry of the Environment, and the Department of Fisheries and Oceans Canada.			
		Environment, and the Beparement of Fisheries and Geedins Canada.			
3.3.8	Inf	rastructure Services – Transit			
		Provide transportation for residents and emergency responders as required.			
3.3.9	Co	mmunity Development – Social Services			
		Provide assistance to residents displaced by wildfire as required.			
		Coordinate Emergency Shelter operations.			
3.3.10	Uti	ilities (NS Power, Berwick Electric, Gas etc.)			
		Perform disconnect operations where this is considered necessary and in the interest of public safety.			
		Secure services and equipment to ensure continuity of supply.			
		Coordinate the priority restoration of affected services as dictated by emergency needs of			
		municipal services and other essential users.			
		Assist with clean up and restoration of services.			
		Assess ability to resume normal operations.			

#### 4.0 PUBLIC EDUCATION & AWARENESS OF WILDFIRE PREPAREDNESS

Since public awareness of wildfire preparedness and response will contribute to an effective evacuation process, ongoing public awareness and education shall be an integral component of this plan. To this end, this Plan, as part of the Regional Emergency Management Plan, shall be posted on the Municipality of the County of Kings, the Towns of Berwick, Kentville & Wolfville's websites in order that the public may have access to it and printed information shall be provided to residents in historically vulnerable areas. During an emergency evacuation, residents are to be able to access the local media sources for information and instructions.

As part of Community Outreach, the Kings REMO Regional Emergency Management Coordinator should provide an overview of Emergency Evacuation procedures to members of the community on an ongoing basis.

#### 4.1 Evacuation Warnings

То	be effective, Evacuation Warnings/Announcements should have the following characteristics:
	<b>Authority</b> —Warnings are more credible and more likely to stimulate appropriate public actions if they are issued by a recognised authority.
	<b>Consistency</b> —To avoid confusion and uncertainty, it is important that consistency be maintained when multiple warnings are issued to the public.
	<b>Accuracy</b> —Accuracy and currency of information contained in the warning also affect understanding and belief. Errors can cause people to doubt subsequent warnings.
	<b>Clarity</b> —An unclear warning can cause people to misunderstand or ignore it. Warnings should be in simple language, without the use of jargon.
	<b>Level of Certainty</b> —Certainty determines the level of belief in a warning and affects decision making by those to whom the warning is given.
0	<b>Level of Detail</b> —Insufficient information creates confusion, uncertainty and anxiety, and public imagination will tend to fill the information void. This can promote rumours, uninformed misconceptions or fears.
0	<b>Clear Guidance</b> — Messages containing clear guidance about protective actions people should take and the time available for doing so are more effective than those which provide no specific instructions.
	<b>Repetition of Warnings</b> —Where time permits, warnings should be repeated preferably using more than one delivery method. This provides confirmation of the warning message, helps increase

	persuasiveness and overcomes the problem of people not responding after hearing a warning only once.
0	<b>Impact Areas</b> —Warning information that clearly states the areas actually or likely to be affected by the event is most effective.
	Methods of Information Dissemination—Warnings are more effective if a range of methods is used rather than a single method, thereby reaching as many people as possible in the shortest time. Methods need to be chosen to fit the time-frame available and should recognise that some modes are appropriate in reaching many people but with only relatively simple or generalised information (e.g. radio, television) whereas others can provide more specific information to targeted individuals (e.g. telephone, facsimile machine, computer, two-way radio, door-knocking or use of community leaders or wardens). Use of the Standard Emergency Warning Signal (SEWS) "Alert Ready" can enhance the effectiveness of electronic media warnings by alerting listeners for an urgent safety message to follow.
	<b>Information Dissemination for Special Needs Groups</b> —Consideration must be given to the specific problems of special needs groups. Dissemination to, and receipt of information by, many of these groups will pose different challenges, for example, language. Neighbours can also help by checking on special-needs people in close proximity.

# 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 Regional Wildfire Preparedness and Response Plan 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 County FPRP will be maintained by the Regional Emergency Management Planning Committee (REMPC) and the Regional Emergency Management Coordinator (REMC).

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

#### **REVIEWS**

MONTH	DAY	YEAR	ВҮ	
March	01	2021	Kings REMO REMC	
March	March 01 2022 Kings REMO REMC		Kings REMO REMC	
March	01	2023	Kings REMO REMC	

#### **PLAN REVISIONS**

MONTH	DAY	YEAR	CHANGE	APPROVED
March	17	2022	1	2022-04-25
June	20	2024	2	2024-07-03

#### 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
- <u>Village of Port Williams</u>

# **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 Authority
- <u>Canadian Red Cross</u>
- Valley Communications
- Valley Search and Rescue (SAR)

#### Annexes

- A <u>Declaring a State of Local Emergency (SOLE)</u>
  - Form 4 (Council)
  - Form 5 (Mayor)
- B Wildfire Event Checklist
- C <u>Wildfires What to Do</u>
- D How to tell if smoke could be affecting you
- E <u>Lessons Learned Wildfire Disasters</u>
- F <u>Wildfires Frequently Asked Questions (FAQ)</u>
- **G** Wildfires Public Service Announcements (PSAs)
- H <u>Wildfires References</u>
  - <u>Federal</u>
  - Provincial
  - Regional
- I <u>FireSmart Your Home</u>
- J <u>Abbreviations & Acronyms</u>
- K Glossary

# Annex A - Declaring a State of Local Emergency (SOLE)

#### **Declaring a State of Local Emergency** Emergency Powers in Brief: 1.Acquire or utilize personal property by confiscation or any means considered necessary Reference: Nova Scotia Emergency Management Act (Section 12 / Section 14 / Section 18) 2.Authorize or require a qualified person to render aid 3.Control or prohibit travel 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 Major emergency or disaster occurs or is imminent 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 Are any of the 10.Authorize and make emergency payments 11.Assess damage to any works, property or undertaking and the costs to repair, replace or extraordinary Yes powers listed in restore the same 12.Assess damage to environment and costs and methods to eliminate or alleviate the damage the Emergency Management Act required? **Declaration of State of Local Emergency** required No Clearly define specific geographical boundaries for declared area of Declaration emergency NOT required Consult with EMO NS/Provincial **Emergency Operations Centre on powers** and geographical boundaries Complete Declaration for submission to elected covered by Declaration officials Submit to Council Remember, The Mayor, o Submit to s there time to delegate, must use their best for passing of a No Yes Mayor for convene a efforts to obtain the consent of Bylaw or the other members of Council before declaring a State of Local signing of Order Council Resolution (Form 5) meeting? (Form 4) Submit completed and signed Declaration to EMO NS/Provincial Emergency **Operations Centre** Immediately publish notice of Declaration to affected population and media As soon as practicable after making a declaration, Mayor must convene a meeting of Council to assist in supporting response to the emergency

#### 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 descr	ibed as:			
Province of Nova Scoti	•	V	N-	
referred to as the "Des	signated Area(s)")	Yes	No	
Nature of the Emergency:				
AND WHEREAS the undersigned	d is satisfied that an emerg	encv as defined	d in Section 2(b) of Chapter 8 of the Statut	e:
<del>-</del>	=	-	ist in the Designated Area(s) noted above	
THE HADERSICALED HEREBY DE	CLARES nursuant to Sastis	n 12/2) of the	Emargancy Management Act a State of	
	·		Emergency Management Act, a State of o'clock in the forenoon ( ) or afternoon (	
of the day of	•	<u> </u>	y disease in the localisating ( ) or anternoon (	,
				,
			o'clock in the forenoon (   ) or afternoon ( n of 7 days from the date and time specifi	
			Section 20 of the Emergency Manageme	
Act.				
DATED at	in the Municipality o	<b>c</b>	, Province of Nova Scotia	_
this day of		·	, FTOVINCE OF NOVA SCOU	1,
	Council, Mun	icipality _		
	Name	_		
	Positions			
		_		
	[Authorized b	y Resolution N	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 A	Area:			
The	e area general described as:			
Pro	vince of Nova Scotia (hereafter			
refe	erred to as the "Designated Area(s)")	Yes	No	
Nature of th	ne Emergency:			
AND WHERE	EAS the undersigned is satisfied that an e	mergency as defir	ned in Section 2(h)	of Chanter 8 of the Statutes
	tia, 1990, the <i>Emergency Management A</i>	= :		•
AND WHERE	EAS the Council of the Municipality is un	able to act;		
AND WHERI	EAS the undersigned has (check appropr	iate box)		
(a)	Consulted with a majority of the memb	ers of the		
	Municipal Emergency Management Co		Yes	No
(b)	Found it impractical to consult with the			
	of the Municipal Emergency Managem	ent Committee	Yes	No
THE UNDER	SIGNED HEREBY DECLARES pursuant to	Section 12(3) of	the <i>Emergency N</i>	Management Act, a State of
	ency in the Municipality noted above as		_o'clock in the fo	orenoon ( ) or afternoon ( )
of the	day of, 20	_•		
THIS DECLA	RATION OF STATE OF LOCAL EMERGENO	Y shall exist until	o'clock in the fo	renoon ( ) or afternoon ( )
	day of, 20		=	
	s the Declaration is renewed or termina			
Act.				
DATED at	, in the Municipa	lity of		_, Province of Nova Scotia,
this	day of, 20			
	Mayor's	s Signature		
	Munici	pality of		

#### Annex B – Wildfire Event Checklist

# **Pre-Incident Phase** Arrange for personnel to participate in necessary training and develop exercises relevant to wildfire events in Kings County Coordinate the County's preparedness activities, seeking understanding of interactions with participating agencies in wildfire scenarios Ensure that emergency contact lists are updated Contact supporting emergency response agencies to review and determine whether major developments have arisen that could adversely affect response operations (e.g., personnel shortages, loss of equipment, etc.) Annually review and update the Kings REMO Regional Emergency Management Plan and **Supporting Plans** ☐ Review wildfire-prone areas Familiarize staff with requirements for requesting a State of Local Emergency (SOLE) Ensure that supplies, such as communications devices and sandbags, are prepared and ready for use. This includes primary and alternate communications and warning systems ☐ Identify and review local contractor lists to see who may provide support specific to wildfire response Review, revise, and, where necessary, establish mutual aid agreements with local agencies and other County agencies and private contractors relevant to multiple agency response to wildfires

Re	sponse Phase
	The Kings REMO ECC Manager will provide overall guidance for the deployment of resources across Kings County
	Activate mutual aid agreements
	Activate the Kings REMO Emergency Coordination Centre (ECC) and implement appropriate staffing plans. Contact appropriate supporting agencies to assign liaisons to the ECC for coordination of specific response activities
	Estimate emergency staffing levels and request personnel support, including specialized staff such as engineers, building inspectors, heavy equipment operators, and/or environmental remediation contractors
	Develop and initiate shift rotation plans, including briefing of replacements during shift changes (set the operational period briefing cycle)
	Submit request for State of Local Emergency (SOLE), as applicable
	Coordinate the evacuation of affected area, if necessary. Assign appropriate agency liaisons to the ECC, as the situation requires
	Support Search and Rescue operations by coordinating resource requests outside of the jurisdiction
	Request the Canadian Red Cross to activate Emergency Shelters and open shelters, if needed
	Formulate Emergency public information messages and media response using "one voice, one message" concept
	Record all ECC activities, completion of personnel tasks, incoming and outgoing messages, and the names of those sending and receiving them. These should be documented in ECC logbooks
	Begin damage assessments in coordination with Public Works Departments

	Assist with coordinating Public Works activities, such as debris removal from:  Storm drains  Main arterial routes  Public right-of-way  Dams  Other structures, as needed
	Contact local contractors for support, if necessary. Establish contact with private sector partners
	Coordinate with law enforcement agency (Kentville Police and/or Kings RCMP) to provide law enforcement to affected areas (road closures, security, etc.)
	Collect and chronologically file records and bills generated during the incident in order to ensure timely submittal of documents for reimbursement (Finance/Administration Section)
Re	covery Phase
	Monitor secondary hazards associated with wildfires (contamination, damage to bridges/roads, impacts to utility lines/facilities) and maintain on-call personnel to support potential response to these types of hazards
	Deactivate/demobilize the ECC. Deactivate mutual aid resources as soon as possible
	Activate and implement applicable mitigation plans, community recovery procedures, and continuity of operations/governments plans until normal daily operations can be completely restored
	Implement revisions to the Kings REMO Regional Emergency Management Plan (REMP) and Supporting Plans based on lessons learned and best practices adopted during response
	Offer recommendations to Municipal Government and Public Works departments for changes in planning, zoning, and building code ordinances
	Participate in After Action Reports and critiques
	Submit valuable success stories and/or lessons learned to NS EMO and other County partners

# Annex C - Wildfires - What to Do

Reference: <u>Public Safety Canada – Hazards and Emergencies</u>

#### **Before a Wildfire**

Но	w to prepare for a wildfire			
If y	our community is surrounded by brush, grassland or forest, follow these instructions to prepare your			
home and family for potential wildfires.				
	Prepare an emergency kit.			
	Check for, and remove, fire hazards in and around your home, such as dried out branches, leaves			
	and debris.			
	Keep a good sprinkler in an accessible location.			
	Learn fire safety techniques and teach them to members of your family.			
	Have fire drills with your family on a regular basis.			
	Maintain first-aid supplies to treat the injured until help arrives.			
	Have an escape plan so that all members of the family know how to get out of the house quickly and			
	safely.			
	Have a emergency plan so family members can contact each other in case they are separated during			
	an evacuation.			
	Make sure all family members are familiar with the technique of "STOP, DROP, AND ROLL" in case of			
	clothes catching on fire.			
	Make sure every floor and all sleeping areas have smoke detectors.			
	Consult with your local fire department about making your home fire-resistant.			
	If you are on a farm/ranch, sheltering livestock may be the wrong thing to do because a wildfire			
	could trap animals inside, causing them to burn alive. Leaving animals unsheltered is preferable, or if			
	time and personal safety permits, evacuation away from the danger zone should be considered.			
If y	ou see a wildfire approaching your home			
If y	ou see a fire approaching your home or community, report it immediately by dialing 9-1-1 or your			
loc	al emergency number. If it is safe, and there is time before the fire arrives, you should take the			
foll	lowing action:			
	Close all windows and doors in the house.			
	Cover vents, windows, and other openings of the house with duct tape and/or precut pieces of			
	plywood.			
	Park your car, positioned forward out of the driveway. Keep car windows closed and have your			
	valuables already packed in your car.			
	Turn off propane or natural gas. Move any propane barbeques into the open, away from structures.			
	Turn on the lights in the house, porch, garage and yard.			
	Inside the house, move combustible materials such as light curtains and furniture away from the			
	windows.			
	Place a ladder to the roof in the front of the house.			

	Put lawn sprinklers on the roof of the house and turn on the water.  Move all combustibles away from the house, including firewood and lawn furniture.  Evacuate your family and pets to a safe location.  Stay tuned to your local radio station for up-to-date information on the fire and possible road closures.
Du	ring a Wildfire  Monitor local radio stations.
	Be prepared to evacuate at any time. If told to evacuate, do so.
	Keep all doors and windows closed in your home.
	Remove flammable drapes, curtains, awnings or other window coverings.
	Keep lights on to aid visibility in case smoke fills the house.
	If sufficient water is available, turn sprinklers on to wet the roof and any water-proof valuables.

#### Annex D – How to tell if smoke could be affecting you

Reference: Nova Scotia Department of Health and Wellness

Smoke from wildfires is a mixture of gases and fine particles from burning trees and other plant materials. Smoke can irritate your eyes and respiratory system and worsen chronic heart and lung diseases.

#### Smoke can cause:

- coughing
- scratchy throat
- irritated, runny nose and sinuses
- shortness of breath
- chest pain
- headaches
- runny nose
- worsening of asthma symptoms

If you have heart or lung disease, smoke might make your symptoms worse. People who have heart disease might experience —

- chest pain
- rapid heartbeat
- shortness of breath

Smoke may worsen symptoms for people who have pre-existing respiratory conditions, such as asthma, and chronic obstructive pulmonary disease (COPD), in the following ways:

- inability to breathe normally
- cough with or without mucus
- chest discomfort
- wheezing and shortness of breath

When smoke levels are high enough, even healthy people may experience some of these symptoms.

#### Know whether you are at risk

If you have heart or lung disease, such as congestive heart failure, angina, COPD, emphysema, or asthma, you may be at higher risk of having health problems than healthy people.

Older adults and children are more likely to be affected by smoke.

Older adults may be more at risk because they are more likely to have heart or lung diseases than younger people.

Children are more likely to be affected because their airways are still developing and because they breathe more air per pound of body weight than adults. Children also are more likely to be active outdoors.

#### **Protect yourself**

Limit your exposure to smoke. The following are ways to protect your health:

- Pay attention to local air quality reports. Listen and watch for news or health warnings about smoke. Check the Air Quality Health Index (AQHI) for the area nearest you at www.airhealth.ca. Also pay attention to public health messages about taking additional safety measures.
- If you are advised to stay indoors, keep indoor air as clean as possible. Keep windows and doors closed unless it is extremely hot outside. Run an air conditioner if you have one, but keep the fresh-air intake closed and the filter clean to prevent outdoor smoke from getting inside. If you do not have an air conditioner and it is too warm to stay inside with the windows closed, seek shelter elsewhere. Do not add to indoor pollution. When smoke levels are high, do not use anything that burns, such as candles, fireplaces, or gas stoves. Do not vacuum, because vacuuming stirs up particles already inside your home. Do not smoke, because smoking puts even more pollution into the air.
- **Follow your doctor's advice** about medicines and about your respiratory management plan if you have asthma or another lung disease. Call your doctor if your symptoms worsen.
- **Do not rely on dust masks for protection.** Paper "comfort" or "dust" masks commonly found at hardware stores are designed to trap large particles, such as sawdust. These masks will not protect your lungs from smoke.

#### Annex E – Lessons Learned – Wildfire Disasters

Reference: 2023 Upper Tantallon Wildfire After-Action Review

#### Alphabetically list by Subject

#### Subject

#### Issue(s)

#### Communications •

- Clear communications, which are absolutely critical during a disaster, require planning, preparation and organization in advance
- Clear communications from a consistent source can help defuse rumour, speculation and misunderstandings
- Everyone involved in the response to a wildfire must understand from the start whose job it is to develop, to approve and to release communications
- It is important to know what media, infrastructure and warning systems will be used

# Coordination with Outside Partners

- Effective collaboration is essential across all agencies during a rapidly developing wildfire situation
- Document the capabilities of outside partners to understand their role, activation method, capacity, and operational durations in a public safety emergency

#### **ECC Staffing**

- Staff rotate out regularly for appropriate breaks in the ECC
- Enhance staff ECC training for all Business Units to ensure a three-deep contingency of trained personnel that can be called upon to staff a regional ECC if activated
- Debriefing and support counselling for all staff and volunteers involved in the event should be considered and accessed early during any ECC activation
- All personnel involved in an emergency should be offered and encouraged to access post-incident support services
- Explore third-party options to assist in creating surge capacity in an emergency

#### Emergency Management Plan

- Review current emergency plans and take steps towards preplanning a comprehensive Emergency Management Plan Framework with current best practices and lessons learned
- Place all risk assessments, protection plans, and evacuation plans on the
   Emergency Management Website to allow for public examination and review
- Conduct Risk-Assessments in communities within the Wildland-Urban Interface for vulnerabilities
- Develop a Crisis Communication Plan incorporating 'I am Responding' and Alert Ready usage and content
- Develop a list of operational resources to support activites
- Assign scene security in major events to the Police Force of Jurisdiction
- Track ICS training to ensure appropriate staff are available at each level corporately
- Ensure ICS is implemented upon ECC activation and scaled accordingly

#### Subject

#### Issue(s)

#### Evacuation

 When it is time to evacuate, everyone must be ready to act together on a shared evacuation plan with defined roles and responsibilities

## Health and Wellbeing

 A deliberate approach is required to mitigate the profound impact of a wildfire event on the long-term health, wellbeing and recovery of individuals, families and communities

#### Jurisdiction

 People must be empowered to do what is right during an emergency, irrespective of everyday boundaries related to jurisdiction, mandate or geography

#### **Local Capacity**

 Kings County's regional emergency management organization should always be ready to provide communities with support and expertise to assist with assessing risks, coordination during an emergency, supporting affected residents, transition to recovery, and administration

#### People

• It is crucial to involve people who have the right experience and expertise to respond to an emergency, and then to empower them to make decisions

#### **Preparedness**

- An advanced level of planning and preparation is required so that emergency response and recovery systems are scalable to address wildfire events.
- The response to a wildfire event must be able to adapt, augment and build upon the core emergency management structures in place
- More thorough planning, timely training and a clear Incident Command System structure are critical for local and provincial organizations to collaborate effectively
- Oversight and quality assurance are important elements of comprehensive emergency preparedness

#### **Procurement**

- Create an emergency response procurement list central repository would contain details about the operational point of contact, the company providing the service, and other relevant information to ensure that invoices, payments, and approvals are processed without confusion
- Following ICS, staff the Finance position early in the activation process

#### Recovery

 Recovery is an essential element of a comprehensive emergency management system. Although some aspects of recovery will be specific to each event, other aspects can and should be planned in advance

#### Technology

- Develop and retain in the ECC a series of maps that show the respective
  jurisdictions and various potential support agencies to build muster points
  and/or emergency centres that can be used in the early phases of an
  emergency
- Ensure a network drive is allocated specifically for Emergency Coordination Centres (Kings REMO ECC – WebEOC File Library)

### Subject Issue(s)

 Develop an interactive public-facing map for public use when an area impacted is so large that static maps make it too difficult to read

#### Annex F – Wildfires – Frequently Asked Questions (FAQ)

#### What is wildfire smoke?

Wildfire smoke is a complex mixture of particles and gases containing hundreds of chemicals. The smoke contains large amounts of fine particulate matter, as well as gases such as carbon monoxide, carbon dioxide, and nitrogen oxides. Depending on the type of materials burned, the smoke may also contain sulfur oxides, volatile organic compounds, and other compounds such as hydrocarbons and formaldehyde that are known to be carcinogenic. These components can vary greatly over time, from fire to fire, and from area to area within a fire zone.

#### What are the potential health effects of wildfire smoke?

Wildfire smoke is a respiratory irritant. Exposed individuals who are otherwise healthy may have the following symptoms when exposed to wildfire smoke:

- Eye, nose, and throat irritation
- Increased mucus production in the nose or throat
- Cough
- Wheezing
- Shortness of breath or difficulty breathing, especially during exercise
- Headache

These symptoms are likely to be short lived and will resolve when smoke clears. Wildfire smoke exposure may aggravate pre-existing heart and lung conditions

#### Are some people more affected than others?

Air quality affects everyone in the population and these impacts can be more serious for those with pre-existing medical conditions, especially underlying heart and/or lung problems.

Health effects may be exacerbated if you:

- · Have heart or lung disease (e.g., congestive heart failure, angina, chronic obstructive
- pulmonary disease, emphysema, asthma)
- Are an older adult (especially if you have heart or lung disease)
- Are pregnant.
- Are a smoker.
- Are a child. Smoke can be more harmful to children because their respiratory systems are still
- developing, they breathe in more air than adults, and they are more likely to be active outside.
- Are involved in strenuous outdoor work or outdoor sports.

#### How do you protect yourself and your family against the effects?

It is important that we all take the necessary precautions to protect ourselves from the hazardous effects of smoke. When a Special Air Quality Statement or air quality advisory is in effect:

- Follow the recommendations in the statement or advisory.
- Monitor your symptoms.
- Minimize outdoor physical activity.
- Remain indoors with windows, doors and air circulation fans/vents closed. If the air quality gets better for a short time, air out your house by opening doors and windows to circulate fresh air.
- If you have an air-conditioner, keep the fresh-air intake closed and the filter clean to prevent outdoor smoke from getting inside.
- Avoid running fans, such as "whole-house fans" or "fresh air ventilation systems", that bring more smoky outdoor air inside. If you have central air conditioning, set it to recirculate. Keep it running to help filter the air and keep your family cool.
- Stay inside particularly if you have breathing difficulties.
- Vehicles should not be used as a shelter, but as a means to get to one or to leave the area.
- While driving, keep windows and vents closed. Put your car fan on re-circulate mode to avoid drawing in outdoor air.
- Drink plenty of water, which helps keep your nose and mouth moist.

#### What is the Home Ignition Zone and why is it so important?

Your ignition zone – including the condition of the house and its immediate surroundings within 30 to 100 metres and other structures such as garages, decks, porches, or fences that come in contact with the house – is what determines your home's susceptibility to ignition during a wildfire. Here are some simple steps for making your ignition zone a deterrent to wildfire progress:

- Clear the build-up of needles and leaves from the base of the house and any connecting structures which could otherwise ignite the home's siding.
- Create a three-metre, fire-free (i.e. non-combustible) area on all sides of your home.
- Clear trees and shrubs of dead material and keep them pruned. Space trees and shrubs far enough apart to slow the spread of an approaching wildfire.
- Choose deciduous trees and shrubs, rather than evergreens for planting close to your home. Evergreens burn fiercely. Plants that shed leaves annually burn more slowly.
- Regularly care for your property to keep it free of dead leaves, needles and debris. Plant native
  wildflowers and fire-resistant plants; keep lawns trimmed and irrigated as they serve as good
  fire breaks, as do rock gardens and xeriscapes.
- Remember a wide driveway, non-flammable walkways and other pathways can slow or stop the spread of a wildfire.
- Use metal flashing at all connection points of structures, such as wooden fences attached to the house.
- "Limb up" trees around the house by removing lower limbs that are within 2.5 metres of the ground.

- Trim any limbs on trees hanging over the house.
- Store firewood well away from your house, particularly during fire-season.
- Use non-flammable (Class A rated) roofing materials.
- Clear gutters of leaves and debris.
- Ensure that chimneys for all wood burning appliances are screened to prevent the escape of live embers.
- Remove excess vegetation along roads.

#### What other natural disasters happen with wildfires?

The aftermath of a wildfire can be as disastrous, if not more so, than the fire. A particularly destructive fire burns away plants and trees that prevent erosion. If heavy rains occur after such a fire, landslides, ash floes, and flash floods can occur. This can result in property damage outside the immediate fire area, and can affect the water quality of streams, rivers and lakes.

#### Annex G – Wildfires – Public Service Announcements (PSAs)

Alphabetically Listed

#### Air Quality Health Index (AQHI)

During wildfire season, visit AQHI Nova Scotia to get the Air Quality Health Index in your area. Wildfire smoke can cause health problems during prolonged exposure, so it is best to know the air quality in your area in case you are planning an outdoor activity, such as camping. (https://weather.gc.ca/airquality/pages/provincial\_summary/ns\_e.html)

#### **Create a Communications Plan**

Your family may not be together when a disaster strikes, so it is important to plan in advance: how will you get to a safe place; how you will contact one another; how and where you will meet; and what will you do in different situations. Create a Family Communications Plan.

#### **Drones Near Wildfires**

If you fly, we can't! Drones near wildfires are not safe. Only authorized aircraft are permitted near wildfires. Let wildland firefighters do their jobs to keep the public safe.

#### **Evacuation – When to Evacuate during a Wildfire**

If fire officials suggest evacuating, it's best to leave right away. This helps you avoid danger and keeps roads clear for firefighters. In big wildfires, there's no time for door-to-door warnings, so if you're told to go, do it fast to stay safe.

Following evacuation orders:

- **Stay informed**: You'll be advised of potential evacuations as early as possible. Listen to local radio or TV for updates from authorities.
- Officials decide: Fire officials decide when and where to evacuate based on the fire, wind, and terrain.
- Law enforcement role: Police enforce evacuation orders. Follow their directions right away.
- Act fast: In severe wildfires, there's no time to waste. If advised to leave, do so without delay.
- **Don't wait for orders**: It's safer to leave before a mandatory order is issued.
- **Stay alert**: You may be directed to temporary assembly areas to await transfer to a safe location.
- Help firefighters: Don't return home until fire officials notify you that it's safe to do so.

#### **Evacuation During Wildfires**

If wildfires are threatening your area, stay informed of evacuation orders. Leave immediately when asked to avoid being caught in fire, smoke, or road congestion. Have an emergency supply kit in your vehicle and know your evacuation route.

Everyone in your community has an important role in ensuring that residents can safely leave an area threatened by a wildfire. Planning, preparing and practicing simple actions as a community

can help make leaving quicker, easier and safer for residents and first responders, reducing the possibility of injury or worse.

#### After Evacuating:

- Wait for guidance about returning to their home. Explain guidelines for bringing fresh water and supplies.
- Seek assistance immediately if someone is injured or not feeling well.
- Inform their designated contact as soon as they are safe.

#### **Know Your Limits**

Planning on burning brush? Know your limits. Even if there's no Red Flag Warning, burning when windy or during low humidity can still be dangerous!

#### Plan Ahead to Protect Yourself from Wildfires

Know your community's evacuation plans, gather emergency supplies, and make a plan to keep wildfire smoke outside.

#### **Power Outages during Wildfires**

When wildfires strike, power outages are common. Here's what you need to know to stay safe and prepared:

- Learn manual operation: Be able to open garage doors or gates without power.
- Understand utility controls: Get to know your home's utility boxes for electricity, water, and gas and how to safely manage them.
- Build an Emergency Supply Kit: Pack essentials like water, coolers, non-perishable food, manual can-opener, current medications, battery-operated radio, durable flashlights, extra batteries, and phone chargers.
- **Keep vehicles ready**: Maintain at least half a tank of gas in your vehicle.
- Create a safety plan: Keep shoes near your bed in case you need to evacuate during the night and have a clear plan for your family and pets during emergencies.
- **Generator use & safety**: Understand your generator's safety guidelines. Know where to connect it, what electrical cords to use, and the electrical load rating. Improper installation may put yourself or utility workers at risk for electrocution.
- **Stay connected**: Always have a charged cell phone for emergencies and keep up with the latest information from Kings REMO and local authorities.

#### **Prevention - Everyday Wildfire Prevention**

Many everyday things can spark wildfires. Keep ignition sources far away from dry vegetation, wood and other fuel. Be aware of weather conditions.

#### **Protect Yourself from Wildfire Smoke**

Close all windows and doors and run air conditioners to keep your house smoke-free.

Wildfire smoke is a mix of gases and fine particles from burning vegetation and other materials. It can travel hundreds of kilometres and cause health concerns.

#### Wildfire Event:

- Charge all cellphones in case of power loss.
- Know the local fire conditions and be prepared to leave at a moment's notice.
- Leave early if you are concerned. It may take more time than you think to evacuate due to heavier traffic and decreased visibility, or if you have small children, pets or livestock, or have physical challenges.
- Go promptly when told to evacuate.
- Don't drive out with trailers or large vehicles like RV's, especially if you are unfamiliar with operating them. A stalled or abandoned vehicle makes it hard for others to leave and first responders to get into the area.
- Keep your car windows up and the air conditioning on to prevent embers and smoke from entering the vehicle.
- Continue to listen for additional evacuation instructions.

#### **Wildfires and At-Risk Populations**

Wildfire smoke's greatest health threat is to those with heart and lung conditions, older adults and children. Listen for advice from local authorities and limit your exposure to any smoke, including low levels. Keep your indoor air as clean as possible. If you have asthma or other lung conditions, follow your respiratory management plan. See a doctor if you have a hard time breathing or if your normal symptoms worsen.

#### **Wildfires Escalate Quickly**

Wildfires can spread quickly — by the time one is nearby, you may not have much time. Stay Weather-Ready by preparing ahead of time. Ready your home, have an evacuation plan, and prepare an emergency supply kit.

#### Wildfire - Small Decisions

There are aspects of wildfire preparation, like using fire-resistant landscaping around your home, that may not be possible for everyone. However, there are also small, potentially life-saving decisions that anyone can make. Small decisions like not burning brush during dry conditions, and clearing brush away from your home can make a big impact in not only your life...but in the lives of those around you.

#### Wildfire Smoke Safety - Protective Actions

During a wildfire, protect yourself from smoke. Stay inside and close windows and doors. If you're running an air conditioner, keep the fresh air intake closed and clean the filter to prevent outdoor smoke from getting inside. Note that cloth face coverings worn to help protect against the spread of COVID-19 do not protect against breathing in wildfire smoke.

#### Wildfire Smoke - Reduce your Exposure to Wildfire Smoke

The best way to protect your health is to reduce your exposure to wildfire smoke.

Pay attention to the Air Quality Health Index (AQHI), special air quality statements or other indicators of smoke levels in your community. If necessary, limit outdoor activity and strenuous physical activities. If you have difficulty breathing, stop altogether.

Stay indoors and keep windows and doors closed. If it is too warm, turn on the air conditioning if possible. If you do not have air conditioning and it is too warm to stay inside with the windows closed, seek out local cooling or clean air space.

Use a clean, good quality air filter (for example, HEPA) in your ventilation system.

#### Wildfire Smoke - Recommendations to Protect Your Health

Check in on others who are in your care or live nearby who may be more vulnerable to wildfire smoke. Frequently check in on neighbours, friends and older family members, especially those who are chronically ill.

When driving, keep vehicle windows closed and set the ventilation system to recirculate.

#### Wildfire Smoke - Take Care of your Mental Health

It's not unusual to feel anxious, stressed out, sad or isolated during a smoke event. Eating well, getting enough sleep, exercising indoors and staying in contact with friends can help. Anyone who is having trouble coping with symptoms of stress, anxiety or depression should seek help from a health care provider. Remember, a wildfire smoke event may last a long time, but it will eventually end. Sharing positive outlooks and attitudes will help you get through it.

#### Wildfire Smoke - Who is most at Risk of the effects of Wildfire Smoke

Some people are at higher risk of health problems when exposed to wildfire smoke.

This includes:

- seniors
- pregnant people
- people who smoke
- infants and young children
- people who work outdoors
- people involved in strenuous outdoor exercise
- people with an existing illness or chronic health conditions, such as:
  - o cancer
  - diabetes
  - o lung or heart conditions

During heavy smoke conditions, everyone is at risk regardless of their age or health.

#### Annex H - Wildfires - References

#### **Federal**

- Environment and Climate Change Canada (ECCC) Air Quality Health Index (Nova Scotia)
- Public Safety Canada Get Prepared
  - o Before a Wildfire
  - o During a Wildfire
- Canadian Wildland Fire Information System
- FireSmart Canada
- Canadian Red Cross: Wildfires Before, During & After

#### **Provincial**

- Nova Scotia Forests Act
- <u>Department of Natural Resources and Renewables</u>
- Fire Weather Forecast Maps and Indices
- Wildfire Prevention

#### Regional

- Kings County Regional Emergency Management Organization (Kings REMO)
- Kings County Comfort Centres
- Fire and Emergency Services
  - Aylesford & District Fire Department
  - o <u>Berwick & District Volunteer Fire Department</u>
  - Canning Volunteer Fire Department
  - o Greenwich Fire Department
  - Halls Harbour Volunteer Fire Department
  - Hantsport Fire Department
  - Kentville Volunteer Fire Department
  - o Kingston & District Fire Department
  - New Minas Volunteer Fire Department
  - Port Williams Fire Department
  - o Springfield Fire Department
  - Waterville & District Fire Department
  - o Wolfville Fire Department

#### Annex I – FireSmart Your Home



- 1. A Class A fire-rated roof assembly offers the best protection. Inspect your roof often and replace or repair any shingles that are in poor condition.
- 2. The gutters on your home provide a place for combustible debris to accumulate. Regularly remove debris from your gutters as sparks and embers can easily ignite these dry materials.
- 3. Eaves open eaves create an entry point for sparks and embers. Closed eaves will prevent combustible debris from accumulating.
- 4. Vents Unscreened vents can allow heat and embers to enter a building and ignite. Install non-combustible vents with 3mm metal screening and keep vents clean and free of combustible debris.
- 5. Siding ensure your siding is free of gaps, holes, or other areas where embers could accumulate, lodge or penetrate. Prioritize repairing any vulnerabilities identified on the exterior walls. Stucco, brick, fibre cement boards/panels and poured concrete all offer superior fire resistance.
- 6. Windows use multi-pane, tempered glass windows, and close them when a wildfire threatens. Install window screening to improve performance against radiant heat exposures and to minimize the size and number of embers that could enter the home.
- 7. Doors gaps at the top, bottom and edges of doors can let flowing embers enter, and garages are full of flammable materials. Inspect garage door seals regularly.

- 8. Balcony, Deck, and Porch sheath the underside of the deck and balcony with fire-resistant sheathing as this will act as a shield against embers. Non-combustible surface should be under the deck as well, and extend for 1.5 metres out from perimeter of deck.
- 9. Fence wooden fences and boardwalks create a direct line to your home and can contribute to the spread of wildfire. Avoid attached fences and walls constructed of combustible materials directly to your home or building.
- 10. Non-combustible Zone (0-1.5 metres from foundation) a FireSmart yard includes making smart choices for your plants, shrubs, grass and mulch. Selecting fire resistant plants and materials can increase the likelihood of your home surviving a wildfire. Ensure there is a 1.5 metre horizontal non-combustible surface around the outer walls of your home.

#### Annex J – Abbreviations & Acronyms

**AREP** Agency Representative

**DFAA** Disaster Financial Assistance Arrangements

**ECC** Emergency Coordination Centre

**ECCC** Environment and Climate Change Canada

**ECCMT** Emergency Coordination Centre Management Team

**EMO** Emergency Management Office

IAP Incident Action Plan

IC Incident Commander

ICP Incident Command Post

ICS Incident Command System

IMT Incident Management Team

**IO** Information Officer

LO Liaison Officer

**LSC** Logistics Section Chief

MAC Multiagency Coordination (MAC) Group

**OSC** Operations Section Chief

**PSC** Planning Section Chief

**REMAC** Regional Emergency Management Advisory Committee

**REMC** Regional Emergency Management Coordinator

**REMP** Regional Emergency Management Plan

**REMPC** Regional Emergency Management Planning Committee

**SO** Safety Officer

**UC** Unified Command

**WPRP** Wildfire Preparedness and Response Plan

#### Annex K - Glossary

Air Tanker A fixed-wing aircraft fitted with tanks and equipment for dropping

suppressants or retardants on wildfires.

**Campaign Fire** A wildfire of such size, complexity and/or priority that its extinction requires a

large organization, high resource commitment, significant expenditure, and

prolonged suppression activity. (Synonym: Project Fire.)

Control a Fire To complete a control line around a fire, any spot fires therefrom, and any

interior island(s) to be saved; cooling down all hot spots that are immediate threats to the control line until the lines can be expected to hold under

foreseeable conditions. (Stages of Control: see fire status.)

**Control Line** A comprehensive term for all constructed or natural fire barriers and treated

fire perimeter used to control a fire. (See Fireguard and Fireline.)

Fine Fuels Fuels that ignite readily and are consumed rapidly by fire (e.g., cured grass,

fallen leaves, needles, small twigs). Dead fine fuels also dry very quickly.

(Synonym: Flash Fuels. Note Medium Fuels and Heavy Fuels.)

**Fire Ban** A Ministerial Order issued by the provincial government to restrict the use of

fire in areas of high hazard. The order describes what types of fires are allowed

or may in fact entirely prohibit the use of any fire.

**Fire Behaviour** The manner in which fuel ignites, flame develops, and fire spreads and exhibits

other related phenomena as determined by the interaction of fuels, weather,

and topography.

Some common terms used to describe fire behaviour include the following:

Smouldering: A fire burning without flame and barely spreading.

• Creeping: A fire spreading slowly over the ground, generally with a low

flame.

• Running: A fire rapidly spreading and with a well-defined head.

 Torch or Torching: A single tree or a small clump of trees is said to "torch" when its foliage ignites and f ares up, usually from bottom to top.

(Synonym - Candle or Candling.)

• Spotting: A fire producing firebrands carried by the surface wind, a fire whirl, and/or convection column that fall beyond the main fire area.

Crowning: A fire ascending into the crowns of trees and spreading from

crown to crown. (Note the three classes of Crown Fire under Wildfire.)

Fire Danger

A general term used to express an assessment of both fixed and variable factors of the fire environment that determine the ease of ignition, rate of spread, difficulty of control, and fire impact. (Note Fire Hazard, Fire Risk, and

**Burning Conditions.)** 

#### Fireguard

A strategically planned barrier, either manually or mechanically constructed, intended to stop or retard the rate of spread of a fire, and from which suppression action is carried out to control a fire. The constructed portion of a control line.

#### **Fire Status**

Out-of-Control: A wildfire not responding or only responding on a limited basis to suppression action such that perimeter spread is not being contained. (Synonym: Not under Control)

Being Held (BH): Indicates that with currently committed resources, sufficient suppression action has been taken that the wildfire is not likely to spread beyond existent or predetermined boundaries under prevailing and forecasting conditions. (Synonym: Partial Control, Contained)

**Under Control (UC):** A wildfire having received sufficient suppression action to ensure no further spread of the fire.

Being Patrolled: In a state of mop-up: the wildfire area is being walked over and checked for hot spots.

**Extinguished**: Having been extinguished. (Synonym: Out)

#### **Fireguard**

A strategically planned barrier, either manually or mechanically constructed, intended to stop or retard the rate of spread of a fire, and from which suppression action is carried out to control a fire. The constructed portion of a control line.

Fire Suppression Tactics Determine exactly where to establish control lines, what to do along these lines, and how best to use each firefighting resource group to cope with sitespecific conditions and fire behaviour at the moment. This is a line function.

#### **Forest Fire**

Any wildfire that is burning in forested areas, grass or barren. The main types of forest fire are:

- Ground fire: A fire that burns in the ground fuel layer (synonym: subsurface fire)
- Surface fire: A fire that burns in the surface fuel layer, excluding the crowns of trees, as either a head fire, flank fire, or backfire
- Crown fire: A fire that advances through the crown fuel layer, usually in conjunction with a surface fire. Crown fires can be classified according to the degree of dependence on the surface fire phase, as follows:
  - 1. Intermittent. A fire in which trees discontinuously torch, but rate of spread is controlled by the surface fire phase
  - 2. Active Crown Fire: A fire that advance with a well-defined wall of flame extending from the ground surface to above the crown fuel layer. Probably most crown fires are of this class. Development of an active crown fire requires a substantial surface fire, and thereafter the surface and crown phases spread as a linked unit (Synonym: Dependent Crown Fire).

3. Independent Crown Fire: A fire that advances in the crown fuel layer only (Synonym: Running Crown).

Initial Attack The action taken to halt the spread or potential spread of a wildfire by the first

firefighting force to arrive at the wildfire.

**Initial Attack Crew** Personnel trained, equipped and deployed to conduct suppression action to

halt the spread or potential spread of a wildfire with in the first burning

period. (Before 10:00 a.m. the next day).

**Sustained Action Crew** Personnel trained, equipped and deployed to conduct suppression action on

a wildfire for an extended period of time.

**Rate of Spread (ROS)** The speed at which a wildfire extends its horizontal dimensions, expressed in

terms of distance per unit of time. Generally thought of in terms of a wildfire's forward movement or head fire rate of spread, but also applicable to backfire

and flank fire rate of spread.

Slash Debris left as a result of forest and other vegetation being altered by forestry

practices and other land use activities (e.g., timber harvesting thinning and pruning, road construction). Includes material such as logs, splinters or chips, tree branches and tops, uprooted stumps and broken or uprooted trees and

shrubs.

Values at Risk The specific or collective set of natural resources and human-made

improvements/developments that have measurable or intrinsic worth and that could or may be destroyed or otherwise altered by wildfire in any given

area (e.g., structures, logging, etc.)

**Woods Closure** An area in which specified activities or entry are temporarily restricted by

agency legislation to reduce risk of human-caused fire. An official order by a

designated authority to close a specified forest area.

