

# *Agriculture Wildfire Preparedness and Mitigation Plan* Guide to Completing the Workbook

British Columbia

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## **Disclaimer**

The Governments of Canada and of British Columbia are committed to working with industry partners. The Wildfire Mitigation and Preparedness Plan Workbook and Guide have been prepared to serve as an aid for developing plans to avoid or mitigate adverse consequences that might otherwise occur for agriculture producers in the event of a wildfire event. Although every effort has been made to ensure that the information in these publications is correct, AAFC, the BC Ministry of Agriculture, Ardcorp, the Investment Agriculture Foundation, the Cattle Industry Development Fund, Regional District Central Okanagan and the BC Agriculture and Food Climate Action Initiative assume no responsibility for the accuracy or reliability of the information, or for any decisions arising from the information contained in these documents.

## **Digital Access to Guide and Workbook**

A digital version of the Workbook and Guide can be downloaded at [www.bcagclimateaction.ca/regional-project/ok05/](http://www.bcagclimateaction.ca/regional-project/ok05/)

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# *Agriculture Wildfire Preparedness and Mitigation Plan*

## Guide to Completing the Workbook

### Overview

Creating an agriculture wildfire preparedness and mitigation plan (or Wildfire Plan) is an essential step in preparing for a major wildfire event. A Wildfire Plan focuses on actions producers can take before, during, and after a wildfire to protect their operations and business.

An agriculture-specific wildfire preparedness and mitigation plan could help you in many ways. Specifically, a wildfire plan:

- Helps producers make decisions now, while there is time to calmly consider options and collect specific information that may be difficult to obtain in a crisis.
- Informs family members, staff, neighbours, and first responders how they can help during a wildfire emergency.
- Helps producers intending to return to the agriculture operation/agriculture operation during or after an evacuation order.
- Reduces harm to agricultural operations, assets, crops and livestock.
- Demonstrates “due diligence” when negotiating with insurance providers.

By using this Guide and Workbook to complete an *Agriculture Wildfire Preparedness and Mitigation Plan*, producers are taking steps to protect themselves and to prepare for wildfire events where they may require assistance. This Guide and Workbook are suitable for use by all producer types – from livestock to mixed agriculture operations to vineyards, tree fruit and field crops. The workbook also includes considerations for operations that have commercial production systems on-site and receive significant numbers of visitors to their facilities during wildfire season (wineries, agriculture operation gate sales, u-pick operations). Some content and sections are commodity-specific and may be only be completed if applicable. All sections are included in one comprehensive Workbook for the benefit of producers who engage in more than one type of agricultural production.

The Guide and the Workbook work together to focus on the critical decisions and actions that should be addressed before a wildfire occurs. The Guide refers to specific parts of the Workbook.

Each recommended action is identified by a checkbox () in both the Guide and the Workbook. Place a check mark in the box as you complete each task. Once you complete your agriculture wildfire preparedness and mitigation plan, retain this Guide to periodically update the plan.

The *Workbook Agriculture Wildfire Preparedness and Mitigation Plan* makes use of Microsoft Word, allowing producers to create a Wildfire Plan by filling in their specific information. Producers can then edit and print their own plans and update them regularly. Some customization may be required to meet individual producer needs and circumstances. For example, producers who

manage multiple properties under different ownership or who own multiple parcels under varying management may wish to include a summary of key information collated for all properties. Some producers may wish to incorporate more visuals or provide translation of critical information to address language barriers and make the Plan accessible to all personnel.

Key information from your completed Wildfire Plan may be used to support identification and protection of your operation by outside agencies, as possible. A *Wildfire Plan Summary* is provided in Appendix 1 of the Workbook for summarizing relevant information (indicated by a 🗨️) that can be shared with your regional district/local government emergency management in advance of the wildfire season or on an event-specific basis. The *Wildfire Plan Summary* may also be shared with other external agencies involved in emergency operations and wildfire response such as local fire departments and BC Wildfire Service. Some producers may want to adapt this *Wildfire Plan Summary* for their own purposes, and for different end-users (e.g., employees, managers, owner, family, neighbours).

### **Key Messages**

A completed *Agriculture Wildfire Preparedness and Mitigation Plan* is the best way to mitigate and prepare for a wildfire event on or near the agriculture operation.

Producers are ultimately responsible for protecting their operations through planning and mitigation, and, as applicable, must consider employees, visitors and animals/livestock in planning for emergencies.

Government financial assistance is limited and only covers losses that are not commercially insurable.

## **Title Page and Header**

Begin preparing an *Agriculture Wildfire Preparedness and Mitigation Plan* by adapting the Title Page contained in the Workbook to your specific circumstances. The Title Page should identify your agriculture operation (farm, ranch, vineyard, orchard, etc.). The agriculture operation name should be added to the Header so it appears at the top of each page.

### **Consider the following steps:**

1. Paste an electronic image of the agriculture operation's logo, if there is one, at the top of the page. If not, simply delete the box.
2. Include the agriculture operation name in the title on the Title Page, replacing the underline.

- 3. Paste a photo image (or two) of the agriculture operation in the box at the bottom of the page. This image could also be a map or any type of graphic that represents the agriculture operation.
- 4. Add the date the plan was completed or updated to the bottom of the Title Page.
- 5. Add the agriculture operation name to the header at the top of Page 1 in the Workbook.

## Part A: Before a Wildfire

### 1. Wildfire Threat

It is important to understand the wildfire threat to agricultural operations. Some regions of the province experience wildfires on a regular basis, and depending on the location of your operation, there may be specific considerations regarding the types of risk (e.g. fuel types, interface risks etc.). The wildland urban interface is defined as the area or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels.

**To learn more about wildfire hazard in the area, consider these actions:**

- 1. Review the Provincial Strategic Threat Analysis fire threat map to determine local wildfire threat at:  
[https://www.for.gov.bc.ca/ftp!/Project/WildfireNews/PSTA/PSTA\\_Threat\\_Overview\\_2015.pdf](https://www.for.gov.bc.ca/ftp!/Project/WildfireNews/PSTA/PSTA_Threat_Overview_2015.pdf)  
While this is a provincial scale map, any area in the vicinity of orange or red threat classes on the map should be considered an area of high threat to property and human safety.
- 2. Talk with your neighbours about wildfire events that have occurred in the area in the past. Knowing the local history is a good starting point. You can also work together to prepare.
- 3. ]Contact the BC Wildfire Service for more information on wildfire hazards in the area and check the BC Wildfire Service website (see link and contact information in Section 4 in the Workbook under *Support Resources*).
- 4. Review the following wildfire emergency preparedness resource with information links to track the latest wildfire conditions and the fire danger rating:
  - *Wildfire hazard in BC:* <https://www2.gov.bc.ca/gov/content/safety/emergency-preparedness-response-recovery/preparedbc/know-the-risks/wildfires>

- *Fire Danger class report* - to find the fire danger rating near you see the Kamloops Fire Centre at: <https://www2.gov.bc.ca/gov/content/safety/wildfire-status/wildfire-situation> (for further information on the local status, contact the BC Wildfire Service as per contact information in Section 4 of the Workbook)

## **2. Agriculture Operation Information**

Basic information about the agriculture operation helps outside organizations provide the assistance that may be needed during a wildfire. Section 1 of the Workbook offers a simple table that can be used to record essential information about the agriculture operation and the people associated with it.

To assist with livestock relocation, if required, the regional district or local municipal government will need to confirm that the operations have “farm” classification under the BC Assessment Authority. Farm status may be easily proven with a Farmer ID Card and number. Similarly, a Premises ID number may also be used to verify livestock operations and their home premises (refer to Part E *Additional Resources* for more information on the voluntary Premises ID and the Farmer ID Card Programs). Ensure details are recorded accurately and printed clearly. Producers may later want to share this information via email, fax or photocopy during a wildfire emergency.

The above information may also be requested by the regional district or municipal government to assist with administration of a permitting system to allow producers access to an evacuation zone (subject to risk) in order to perform livestock and crop management services essential to their operations. Depending on re-entry permitting protocols in place, if any, during an evacuation order, the license plate and drivers license numbers of the operation manager and staff may also assist in the administration and identification of permittees.

A Parcel Identifier or PID is a nine-digit number that uniquely identifies a parcel in the land title register of BC. The PID can be found on the tax assessment notice or through BC Assessment’s e-value BC website (<https://www.bcassessment.ca/>). This number could be helpful for responders to locate or reference an agriculture operation.

A Folio Number (or Role Number) is a number assigned to a property by the BC Assessment Authority for assessment administrative purposes. In the event of a wildfire emergency it is an important property identifier linking your property information to local government mapping. It can potentially be used by regional districts to identify your property in relation to a specific wildfire event and inform emergency operations. The Folio Number may also potentially link to your essential Wildfire Plan information as/if provided to the regional district in advance of the wildfire season.

**Consider the following steps:**

- 1. Record the essential information about the agriculture operation in section 1, *Agriculture Operation Information*.
- 2. Take photographs and video of important assets to document their existence and condition, noting the time and date the images were collected. For insurance purposes, it is important to photo-document annually from the same location/position.
- 3. Store essential operation records and images in a fire-resistant filing cabinet or at an off-site location. Consider backing up electronic files using cloud storage services in Canada.

### 3. Range Tenure Information

***[Skip to Section 4 if you do not have livestock on your property]***

For cattle/ranch operators with a Crown land range tenure, record the Range Agreement Number (inclusive of range use and grazing permits) and location of your tenure in relation to your farm/ranch base. The RAN number is a unique identifier for a Range Agreement (e.g., RAN077777). Multiple areas belonging to the same Range Agreement may have the same RAN number with unique block IDs.

For some ranchers, the tenure will be located adjacent to their farm/ranch (i.e., cattle may be ranged from the farm gate); for others, the tenure will be located a distance that requires hauling of cattle between the range and farm/ranch.

### 4. Emergency Contacts

An important step in preparedness is identifying people and organizations that can assist when needed. Creating a list now saves time during an emergency and allows a producer to quickly engage others in responding to a wildfire that threatens their agriculture operation.

Understanding the roles and responsibilities of emergency management and wildfire response agencies is key to determining which support resources to contact when, and for what information, before, during and after wildfire:

- **Regional district or local municipal government** – The local authority is responsible for the Emergency Operations Centre (EOC), issuing evacuation alerts or orders and establishing protocols around entry to and control of evacuation zones. They will be the key contact for information, notifications and updates regarding threats and emergency status. They may be contacted in advance of the wildfire season to provide information on local water supply, evacuation routes, and may provide maps to assist you in pre-planning. You are encouraged to share relevant information from your completed *Wildfire Plan Summary*

(See Appendix 1 of the *Workbook*) with the local authority prior to wildfire season to support emergency operations and response planning during a wildfire event. During an evacuation alert, they may be contacted regarding evacuation concerns and guidance specific to your operation. During an emergency, and particularly during an evacuation order, their focus is on public safety; however, they may engage agriculture specialists and provide logistical support to producers for livestock relocation. The local government also provides support in administration of disaster financial support during and after a disaster.

- **BC Wildfire Service (BCWS)** – Their focus is on wildfire response and they are the prime source of information for wildfire status updates. BCWS advises the local government on trigger points for evacuation alerts or orders and liaises with the EOC, other agencies and stakeholders as possible. Producers may contact the local BCWS in advance of wildfire season for guidance on mitigation and preparedness planning. After wildfire you may contact the BCWS regarding compensation for suppression activities that have directly impacted your property.
- **Ministry of Agriculture** – Agriculture resource specialists assist the EOC or Provincial Emergency Operations Centre by invitation. They may inform producers during an emergency and work with private agriculture operation owners and animal owners in protecting and relocating livestock. They may be contacted by producers prior to wildfire season to provide information on government supported business risk management programs, current policies and procedures around disaster relief, and other relevant industry information to support pre-planning. They may be contacted during wildfire for information and logistical support.
- **Range Branch of the Ministry of Forests, Lands, Natural Resource Operations and Rural Development** – Range specialists assist the EOC by invitation to facilitate livestock relocation. They may liaise with range tenure holders and BCWS (situational) regarding fire response and suppression planning on Crown land. Producers may contact the local Range Specialist in advance of fire season to update their range tenure information. During and after wildfire, Range may be contacted for information and support regarding wildfire or suppression activities directly impacting Crown range tenure infrastructure or grazing.
- **Agriculture Associations and Animal Rescue Organizations** – Industry associations and support agencies share information and resources with their members and the public to support individual pre-planning and may provide information and support during wildfire, subject to resources and mandates. They may send representatives/specialists to support EOCs by invitation. Producers may contact their industry associations and other support agencies pre-season, during and after wildfire for information, support, training and resources.

Although mobile devices can carry important contact information, they may not always be available. A printed list of emergency contacts ensures ready access and allows others to assist in responding to a wildfire emergency. The *Workbook* suggests some common emergency contacts; include any additional contacts.

**Take these steps to include emergency contacts in the Wildfire Plan.**

- 1. Use section 4. *Emergency Contacts* in the Wildfire Plan to prepare a list of emergency contacts for the operation. Include the license plates and driver's licences of management and staff to facilitate passage at control points in the event of permitted entry during an evacuation order (subject to regional district permitting system used, if any). It is critical to provide a local manager/contact that can be available (to be onsite if necessary) during an emergency.

If water is purveyed to your property (e.g., you are not well-based) record the business name of the water purveyor/water authority (e.g., Irrigation District name or local government system) and an emergency contact.

- 2. Meet with your neighbours, local community group, farmer institutes, and agriculture associations each year to discuss available resources, equipment and space (for relocated livestock). Arrange text messaging, phone tree or other communication system among producers so you can help each other quickly in a wildfire emergency.
- 3. Conduct an annual check-in with each person or organization on the *Emergency Contacts* list to confirm the contact information is current.
- 4. Make several copies of the *Emergency Contacts* and keep them in different locations including a personal vehicle. Add key contacts to mobile phones.
- 5. If you are not currently a member of an agricultural association; become familiar with the organizations that may be able to provide support or act as communication liaisons during a wildfire event.

For small operators or hobby producers with livestock/domestic animals this may include animal rescue organizations such as BCSPCA, Animal Lifeline Emergency Response Team (ALERT) the Canadian Disaster Animal Response Team (CDART), and BC Interior Horse Rescue Society.

A comprehensive list of provincial livestock-specific agriculture association contacts are provided on page 10 of the *Workbook Agriculture Appendix for BC Local Authority Emergency Plans* ([https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/farm-management/emergency-management/relocation/900600-5\\_local\\_gov\\_em\\_plan\\_ag\\_appedix\\_workbook.pdf](https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/farm-management/emergency-management/relocation/900600-5_local_gov_em_plan_ag_appedix_workbook.pdf)).

The Tourism Industry Association of BC (TIABC) has resources to assist producers in messaging to visitors and emergency planning.

## 5. Agriculture Operation Maps

Maps are essential for preparing for, responding to, and recovering from wildfire emergencies. Maps are also very useful for engaging agencies such as the local fire department, utility response teams, or the BC Wildfire Service.

Some producers may wish to sketch a simple map using graph paper. Paper maps may also be obtained from your local government office, such as the municipal or regional district office.

You can also create a map your operation using regional district web map services. These GIS mapping functions can display a property and save a screen image to provide a base map. Visit your local regional district website (or contact your regional district) to see what map services are available:

The BC Assessment Authority offers property data, including basic maps. Producers can search for their properties by address, Roll Number, Plan Number, or PID at:

<https://www.bcassessment.ca/>

Readily available resources, like Google Earth (a free, downloadable program) allow producers to zoom in to every section of an agriculture operation, and to tag, label, and draw a boundary around a piece of property. To download Google Earth, see:

<https://www.google.com/earth/>

A range tenure holder may use their most current Range Use Plan map as a source for range-level Wildfire Plan mapping.

### **Actions for preparing a map (or multiple maps) for the Wildfire Plan include the following.**

(Note: several map features listed below are described in greater detail in the subsequent sections of the guide)

1. Obtain or create a base map of the agriculture operation, showing at least the following elements:
  - Property boundaries
  - Access roads (include local and unclassified roads) and evacuation routes off the agriculture operation site (ideally multiple routes off and away)
  - Surface water, including ponds and streams
  - Hydro lines

There may be value in creating one small scale map (larger geographic extent) to show the adjacent properties and access routes, as well as all property lines. A second or several large-scale map(s) (smaller geographic extent) may show details that are important to helping others protect your property and operations.

**For range tenure holders**, consider creating another smaller scale map to show the layout of your operations and tenure (home ranch and range) that includes roads and access points.

**For producers with multiple satellite operations/ parcels**, another smaller scale map will have value to show the layout of your satellite operations/ parcels (include roads and access points). For example, identify separate parcels under the same company that may be managed or operated by different family members or employees.

**For agritourism operations and operations with visitors and/or employees at risk during wildfire season**, create a separate evacuation plan map for use by you and your employees and for posting at your site as necessary.

Consider using the grid provided in the Workbook to sketch an outline of the property and key elements.

2. Add important operation and site features (and as applicable, range tenure features) to the map and label each item.

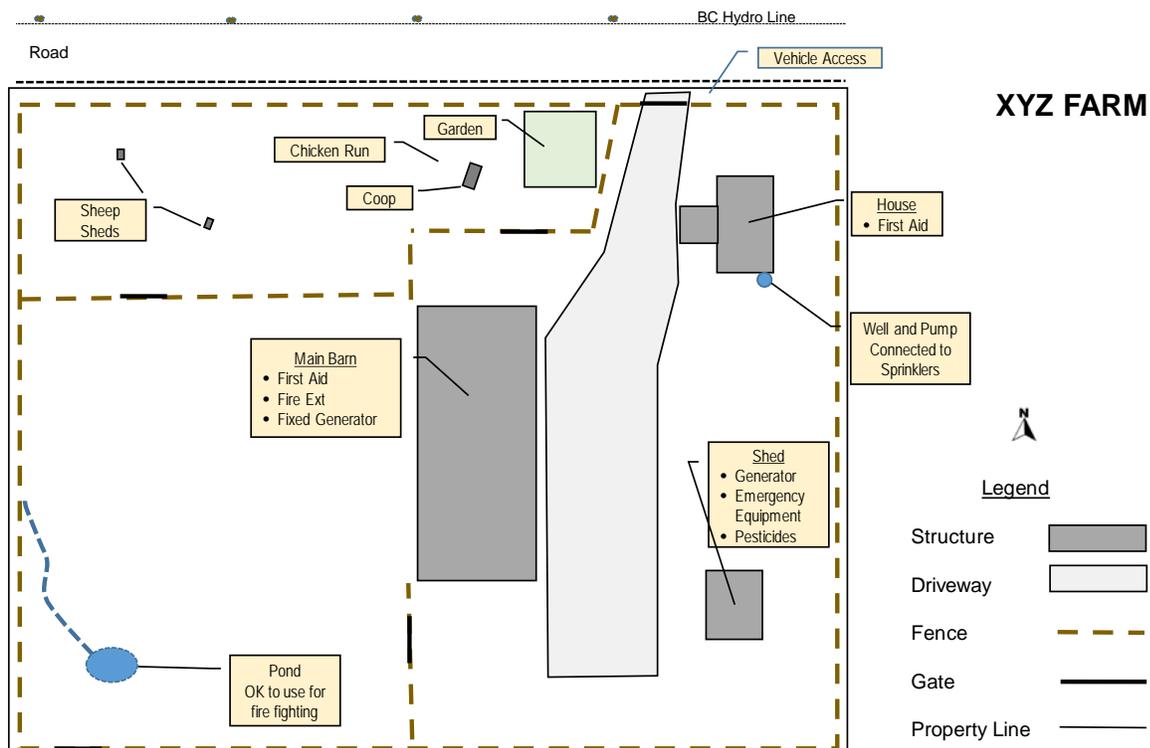
Include features and assets that you want to identify for outside suppression agencies; for protection from wildfire as well as for protection from the impacts of suppression activities such as machine fire guard construction.

Important operation and site features include:

- Fences
- Gates and cattleguards
- Structures, including main house, barns, and sheds, produce/inventory storage, sorting, packing, grading, processing buildings; farm market (on-site sales/retail, tasting facilities, restaurant) and other specialty buildings
- Public parking and access area,
- Pastures, corrals
- Wells, tanks and pumps, standpipes, private water reservoirs (water hookup locations for pump/sprinkler system)
- In-ground and above-ground irrigation systems (identified as gravity fed or powered)
- Water lines
- Gas lines
- Surface water that is suitable for fire suppression
- Public reservoirs and other water sources available
- Perennial crop production infrastructure (e.g. trellis systems)
- Access points to adjacent Crown land
- Hazardous areas on the property, such as manure holding ponds and pesticide, fuel and chemical storage locations

- 3. Identify structures to receive priority protection and rank their relative priority using either a colour coding or numbering system, from highest to lowest priority for protection (e.g., red=high, yellow=moderate and green=low priority or #1 highest to #3 lowest priority). Clearly indicate the ranking in the legend.
- 4. Show on the map the equipment and locations that could be useful in a wildfire, including:
  - Fire extinguishers
  - First aid kits
  - Sprinkler kits and setup locations
  - Generators
  - Animal loading areas
  - Structures that may be used for sheltering livestock
  - Tractor and plow implements, front-end loaders, excavators
  - Hazard-reduced areas (cleared land), safe places to shelter livestock
- 5. Include a legend to define any symbols on the map, and any priority ranking system used, as applicable. Add a North arrow and a map scale.
- 6. Make several copies of all maps and include one set in the Wildfire Plan in section 4, *Agriculture Operation Maps*.

### Sample Agriculture Operation Map



### Sample Tree Fruit Operation Map



**Sample Map – Range Level Basemap**

Replace this page with a map that shows the layout of your ranch and tenure that includes roads and access points to your range.

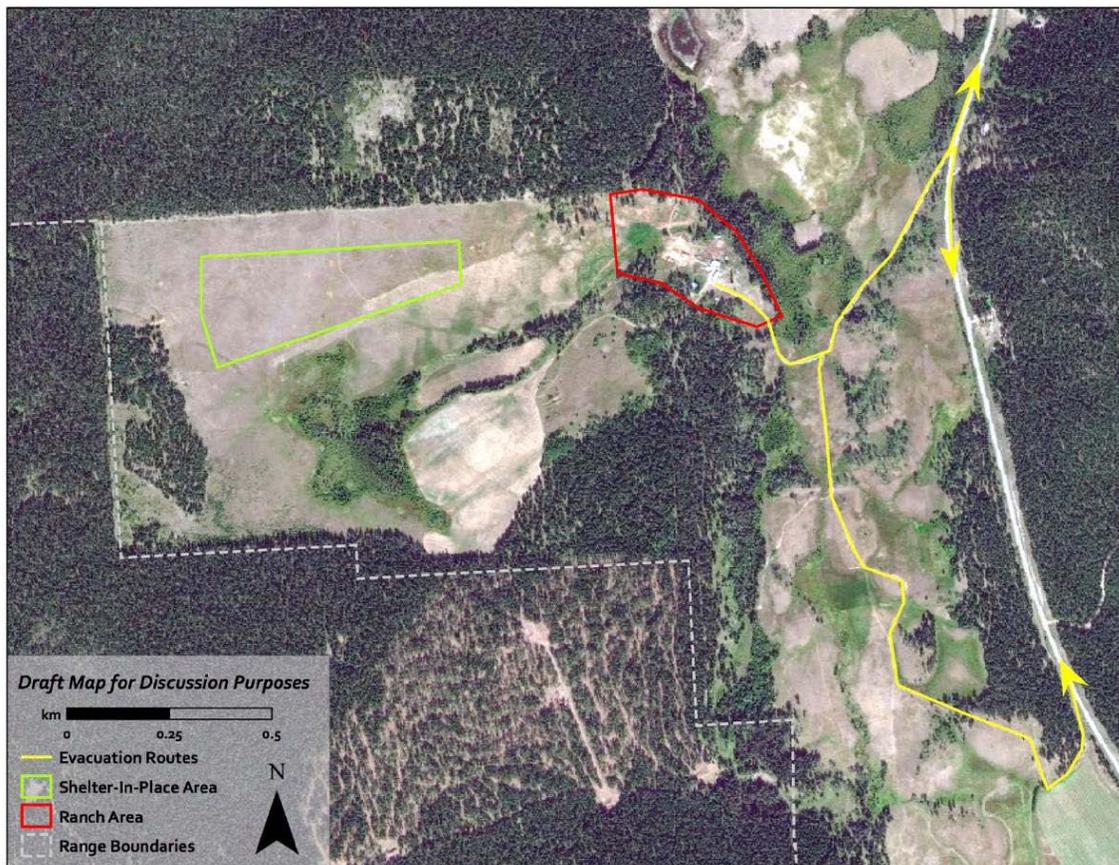


### Sample Map – Sprinkler Setup Plan Map

Replace this page with a map of your operation that identifies water hookup locations and includes a sprinkler setup plan to be used in case of emergency



## Sample Map – Contingency Plan Map



## 6. Livestock Inventory

***[Skip to Section 8 if you do not have livestock on your property. If you have pets that need to be considered in wildfire planning they may be listed in this section]***

An up-to-date livestock inventory is especially important during a wildfire. An inventory will help producers manage decisions during response, such as whether to shelter-in-place or to relocate livestock, and can be used to inform others who offer help.

Also, loss compensation through commercial insurance or other program requires documentation of the animals on hand prior to impact.

Note: The operation may already have an inventory process that keeps the livestock information current, and this may change frequently for some producers. Consider adding a copy of your existing records as an appendix to your Agriculture Wildfire Plan.

Some producers or hobby farmers may have pets or non-farm business livestock they may wish to inventory for wildfire protection planning purposes. It is not necessary to complete *Section 15 -*

*Decision Guide for Livestock Protection.* Section 15 is intended primarily for use by commercial livestock producers.

**If you do not have a current inventory, consider these steps in preparing one:**

- 1. Identify the current number of animals on the property by type, using section 6, *Livestock Inventory* of the Workbook.
- 2. Prepare a list of animals by name, gender, and registration number, and attach the list to the Wildfire Plan.
- 3. Ensure all animal identification records are secured in a fire-resistant filing cabinet or at an off-site location, and that records will be available when needed.

## **7. Livestock Location During Wildfire Season**

If livestock are ranged at alternate locations during the wildfire season, including on the property and on a Crown range tenure, the expected livestock numbers by location will be valuable information for managing decisions during response, and for emergency responders in planning suppression operations on Crown land.

- 1. Identify the expected livestock numbers during the early and peak fire seasons by location (on property versus on Crown range tenure) as per usual turnout and roundup dates.

## **8. Vehicles and Response Equipment / Resources**

Understanding the types of vehicles and special equipment that may be available in a wildfire emergency helps you plan for successful response. This equipment may help producers respond to small wildfire starts, relocate livestock to safety, operate water pumps and electrical equipment, or perform other functions that would safeguard the operation.

A complete inventory of equipment is imperative for insurance purposes. Use the workbook to identify functions for equipment in the event that some responders are not familiar with the equipment.

The Workbook includes space to record vehicles and equipment on the property and with nearby neighbours. This list may also help producers share equipment among their neighbours during a wildfire.

**Account for available vehicles and response equipment by following these steps:**

- 1. Using section 8 of the Workbook, *Farm Vehicles and Response Equipment*, include a list of personnel (including relevant certifications and training), livestock trailers, heavy equipment, and other equipment available from neighbours.
- 2. Discuss this list with neighbours to confirm the equipment and resources they may be able to share before and during wildfire.

## 9. Water Sources

Understanding the types of water sources that may be available for irrigation, sprinkler protection and to support fire response is important to safeguard the operation and activities essential to livestock and crop management during a wildfire. Examples of water sources include: surface water (ponds, streams), private reservoirs (manual or powered gates), wells, water tanks, and stand pipes.

Many different water systems exist in BC. In some regions water systems are centralized and in others, such as the Okanagan, there may be large numbers of independent water purveyors/authorities that are not integrated. In some circumstances, producers may be entirely self sufficient for water supply. Water supply can be restricted and prioritized for use by response agencies during a wildfire event. Some water supply systems may also be vulnerable to power or internet outages or disruptions. Ensure you fully consider water supply and potential limitations and contact your water purveyor (if applicable). Prepare in advance and install cisterns or other water storage as required. Cisterns may be filled with rain water or waste water and should be kept filled during wildfire season.

**Account for water available for fire response by following these steps:**

- 1. Use section 9 of the Workbook, *Water Sources*, to include a list of water sources that are readily available on the property or nearby as a contingency, including both privately held and public resources that may be potentially accessed.
- 2. Discuss this list with neighbours and local water authorities/purveyors to confirm the availability of water sources before and during wildfire.

## 10. Risk Reduction – On Property

Producers can undertake many actions before a wildfire occurs to reduce the likelihood or impact of a wildfire on the property. It is important to understand how wildfire spread can impact agriculture operations in the following ways, besides flame contact:

- Sparks or ember showers may travel 2 km or more in advance of a wildfire
- Radiant heat can ignite combustible or flammable materials (including structures or fuel storage) within 10 m, and potentially damage crops within an even greater distance.

### 10-1. Reduce Nearby Combustible Materials

Removing combustible vegetation and other materials around agriculture operation structures is one of the most effective ways of protecting the operation. Removing combustible materials around animal barns is especially important if the structure may be used to shelter livestock during a wildfire.

Consider risk to wood power poles and gas and power lines which are often surrounded by grass fuels. Preventative measures include underground propane lines, aluminum sheeting around wood poles to height of fuel and regular clearing of grass fuels under and around wood poles.

Reducing fuels is best done in advance of a fire so the debris may be removed from the area and disposed. A large operation may benefit from a wildfire risk assessment by a qualified expert. For more information on reducing combustible materials, see *The Home Owners FireSmart Manual*, published by the BC government at [www.bcwildfire.ca/Prevention/firesmart.htm](http://www.bcwildfire.ca/Prevention/firesmart.htm).

FireSmart uses the concept of priority zones or FireSmart zones to determine where and how hazard assessment should be conducted and what actions should be undertaken. The first two priority zones are as follows:

- *Priority zone 1* – 10 m fuel free cleared zone around structures
- *Priority zone 2* – 10 - 30 m out from structures where most flammable vegetation is removed (fuels are reduced) to prevent ground fires spreading and moving up into crowns of trees

#### Check the actions below to take before a forest fire strikes:

1. Prepare an aerial photo or map of the agriculture operation and draw lines that are about 10 meters and 30 metres around all structures.
2. Show on the map the combustible materials within 10 metres of structures that could be removed to reduce risks, including:
  - Trees and shrubs
  - Packaging and pallets
  - Pesticides or other hazardous material subject to volatilization and explosion
  - Hay bales
  - Woodpiles, deadfall
  - Propane and other fuel tanks
  - Other combustibles
3. In the area between 10 meters and 30 meters around each structure, identify on the map the combustibles that could be removed, such as:
  - Trees to increase spacing (e.g.. conifers which are much more combustible than deciduous trees)
  - Low branches that could allow ground fire to spread to canopy
  - Deadfall

- 4. In the Workbook under 10-1 *Reduce Combustible Materials*, write down the actions that should be taken to remove combustible materials within 10 metres of structures, and between 10 m to 30 m. Options for reducing combustibles include:
  - Remove trees, bushes and overhanging limbs within 10 m of buildings.
  - Thin trees to 3-6 m spacing.
  - Remove deadfall within 10 – 30 m of structures.
  - Clear vegetation from critical fence lines to 4 m.
  - Maintain 10 m fuel free buffer around corrals.
  
- 5. Dispose of cut vegetation safely, in compliance with local burning bylaws and approved disposal methods. Discuss with the regional district and local municipality any large-scale vegetation reduction efforts on the property to ensure you have the proper permits.

### 10-2 Use Fire Resistant Materials

Producers can reduce risk by increasing the amount of fire-resistant building materials used on structures on their property. Structures that rely on wood roof materials are especially vulnerable to wind-blown burning branches and radiant heat produced in a wildfire. Replacing wooden roof materials with asphalt shingles, clay tile, or metal materials increases fire resistance and reduces the chance of structure fire. The *Home Owners FireSmart Manual* contains good advice on how a producer can increase fire resistance through the choice of building materials.

#### Consider the following actions to improve fire resistant construction:

- 1. Identify the roof and siding materials on all structures. Pay attention to barns and other structures that will be used for livestock shelter during a wildfire threat.
  
- 2. In the Workbook under 10-2 *Fire Resistant Construction*, record the actions that would improve the fire resistance of the exposed building materials. Some options for fire resistant construction include:
  - Ensure buildings have metal, clay tile or asphalt roofs.
  - Ensure buildings have non-flammable siding (e.g., metal or concrete).
  - Close or screen eaves and vents with 3 mm mesh.
  - Replace wooden fence posts with metal.

### 10-3. Plan for Sprinkler Protection

If the agriculture operation contains flexible irrigation systems, sprinklers may provide additional structure protection. Fire brands and burning branches can travel more than 2 kms ahead of a wildfire. Just having green fields or a wet fuel break on the landscape around structures may not provide enough protection. Sprinklers help create a wet environment around individual buildings. Sprinkler systems are particularly important where animals will be sheltered, such as pastures or barns.

If sprinklers or hoses are limited, determine the priority of agriculture operation structures to protect ahead of time. Producers could put sprinkler equipment in place at the beginning of each fire season, or leave the system permanently installed.

Be informed of local water supply vulnerabilities (see Section 9 above) and prepare accordingly. Contingency water supply for sprinklers may include on-site water storage (cisterns are highly recommended), private water sources, and surface water, as available.

**Consider the following actions to set up the sprinkler systems for protection of agriculture operation:**

- 1. Determine if existing sprinkler equipment is sufficient to create a humid envelope around all structures, or at least critical buildings, during wildfire.
- 2. Using section 10-3, *Sprinkler Protection* in the Workbook, identify the priorities of structures that should be protected by sprinklers.
- 3. For more information on setting up structural sprinklers, contact the BC Office of the Fire Commissioner, 250-952-4913, 1-888-988-9488, or email to [OFC@gov.bc.ca](mailto:OFC@gov.bc.ca).

The report *Cariboo-Chilcotin Agriculture/Wildfire Preparedness Project – Opportunities and Barriers to Wildfire Risk Mitigation* (see Section E – Resources) provides specifications for sprinkler kits, example schematic of components and layout, and 2016 sample cost estimates.

The Union of BC Municipalities provides inventory specifications for Structural Protection Units intended for community use and deployment:

<http://www.ubcm.ca/assets/Services/Documents/structural-protection-units-technical-specifications.pdf>

- 4. Determine if the primary water supply is vulnerable (check with the local water purveyor if applicable) and have contingency water supply or storage (e.g., cisterns) in place for the sprinkler system. The volume of water required will depend on the size and number of buildings, surface area and duration of sprinkling. It is recommended to engage a fire protection professional if you have a large facility or complex protection needs.

## 11. Risk Reduction – Range Level Assets

***[Skip to Section 12 if you do not have livestock on Crown range tenure]***

Producers can undertake actions in advance to protect critical assets on Crown range tenure that are at risk of damage by wildfire or areas that may be important for emergency response. The primary action is fuel reduction, which requires careful consideration of the types and distribution of fuels and an understanding of various treatment options (including disposal of the fuel) and associated maintenance requirements. In almost all cases, the advice of a qualified professional will be required to develop smart fuel reduction prescriptions, as described below. Actions may include

the clearing of fuels from a fence right of way, or widening of the right of way, and maintaining fuel free buffers around corrals.

Range assets may include:

- Fencing
- Corrals
- Water developments (troughs)
- Evacuation routes
- Safe spaces
- Loading areas

There are many opportunities for range tenure holders to cut trees in the vicinity of ranch infrastructure (for fuel management purposes) under different regulations such as the *Forest and Range Practices Act* and the *Range Planning and Practices Regulations*. However; any cutting of timber under any regulation requires a permit approved by the Ministry of Forests, Lands and Natural Resource Operations and Rural Development District Resource Manager. Fuel management on crown land will generally require a detailed prescription to be developed by a qualified professional to ensure that all regulatory and permit requirements are met.

For further information and prior to engaging in fuel management on Crown land, consult with your local Resource Manager.

*The Cariboo-Chilcotin Agriculture/Wildfire Preparedness Project – Opportunities and Barriers to Wildfire Risk Mitigation* (<https://www.bcagclimateaction.ca/wp/wp-content/media/CB01-Wildfire-Preparedness-and-Mitigation-OpportunitiesBarriers2016.pdf>) may also be consulted for further information on proactive intervention to reduce wildfire risk on range lands.

**Check the actions below to take before a wildfire strikes:**

- 1. Identify areas critical to your day-to-day operations (e.g., corrals, loading areas) and fence lines that are most important to keeping your animals safe and on your range. Also identify areas that may be important for emergency response (e.g., safe spaces, evacuation routes).
- 2. Identify actions required to reduce fuels.

## 12. Insurance Information

Producers in BC have access to several approaches to insurance and managing financial losses due to the consequences of wildfire, as noted below. Refer to the specific links for detailed program information.

### Private Insurance

Insurance plays an important role in protecting the agriculture producer from low-probability, high-consequence disasters such as wildfires. Different types of private insurance are available to cover

losses to infrastructure (i.e., structures, fences, and equipment), crops, and livestock as well business/income interruption losses due to wildfire.

Farm insurance coverage likely includes the cost of relocating livestock in an emergency, both during transportation and at relocation sites, depending on the specific policy. Insurers will likely reimburse producers for transportation and other costs incurred by actively protecting their animals. Some insurers cover fences. In some cases, special additional coverage is required for livestock and fencing. Check with your agent or broker for details of specific infrastructure that is covered.

As an important step in managing risk, producers in BC should understand what is covered under their insurance policies and what may be excluded. For example, are your losses covered if livestock are harmed indirectly in a wildfire? Are both completed stock (harvested crop) and crops in progress (generally crops in the ground) insured? Does completed stock such as hay and feed need to be stored inside a structure to be covered by insurance? For tree fruit, grape/vineyard, and field crop producers, it is important to recognize how the different stages of production are covered under the insurance, from crops in the ground, to harvested, stored, processed and transported product. Crop insurance is available commercially and through the government supported *BC Production Insurance* (see federal/provincial programs below). For some producers, business interruption or loss of profit insurance may be beneficial.

Be aware that your ability to purchase additional coverage, obtain a new insurance policy, or to renew your policy may be limited if your operation is located within a specified distance of active wildfire. It is advised that you renew your insurance outside of fire season (during the fall and winter) to ensure that you are not in an active fire situation at the time of renewal. Do not underestimate replacement costs relative to the cost of insurance and communicate property improvements to your insurance broker as they occur to ensure they are covered. Talk with your insurance broker or agent at least annually to ensure you have adequate insurance specific to your operation and location.

Comprehensive and consistent photo documentation of assets beforehand is recommended annually at insurance renewal (or when you prepare and update your Wildfire Plan). Photo documentation of your assets in their current state and condition, from the same location/position, before and after an event, will go a long way to expediting and supporting an insurance claim.

The Insurance Bureau of Canada can help producers find available coverage for business losses through private insurance programs. Its member companies represent approximately 90% of the property and casualty insurance market in Canada. Their website is <http://www.ibc.ca/bc/>.

### **Federal/Provincial Government Risk Management Programs**

The federal and provincial governments provide a suite of cost-shared risk management programs for the agricultural sector that provide protection against different types of income and production losses applicable to crop and livestock producers.

More information on these risk management programs is available at:

<http://www.agr.gc.ca/eng/programs-and-services/agricultural-business-management/business-risk-management-programs/?id=1490812852619>

<https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/programs> - Government supported crop insurance (currently *BC Production Insurance*) covers crop losses due to wildfire including yield, quality and stock loss for a wide range of insurable crops.

**Consider the following actions to ensure you have appropriate and adequate insurance and business risk management in place:**

- 1. Review all commercial insurance and government supported insurance or risk management programs relevant to your operations in the context of the following:
  - local wildfire threat,
  - potential direct and indirect impacts of wildfire to your assets, and
  - anticipated realistic replacement costs and deductible limits.
  
- 2. Meet with your insurance agent or broker or program representative at least annually to review your coverage, including the following points:
  - a. Is the potential loss of livestock covered if animals are moved from the farm to a safe location due to the threat of a wildfire?
  - b. Are the costs of transportation, feed, water, and veterinary care for animals relocated during a wildfire emergency covered under the policy?
  - c. Does coverage include the costs of returning animals to the farm after the wildfire emergency has ended?
  - d. Does coverage include the costs of repairing fences and gates after damage due to wildfire?
  - e. Does the coverage include direct and indirect losses to crops, including yield, quality and loss of stock?
  - f. Does coverage include loss of harvested, stored, processed or transported crop products as well as crops in the ground?
  - g. Does coverage include losses due to prolonged power outage due to a primary emergency, such as a wildfire?
  - h. What infrastructure relevant to my operations is covered?
  - i. What steps should be taken when damage occurs?

Record the answers in the space provided for “*Key Coverages and Exclusions*” in section 12 of the Wildfire Plan.

- 3. Ensure you understand your policy and are aware of what is included and what is excluded.

## 13. Backup Power

Agriculture operations likely depend on electrical equipment that could be vulnerable to power interruption. Wildfires have the potential to trigger prolonged power outages locally or throughout the region. It is therefore wise for producers to anticipate prolonged outages and to take steps before disaster strikes to protect critical systems.

Essential agriculture operation systems requiring electrical power may include:

- Irrigation
- Refrigeration equipment
- Processing systems
- Dairy milking systems
- Feeding systems
- Water pump
- Sewer system
- Freezers

**These actions are needed to set up the backup power systems for agriculture operation equipment:**

1. Identify the available backup power supply equipment that could be used in a prolonged power outage.
2. Use the Workbook section 13, *Backup Power* to identify the priorities for agriculture equipment that should be supported by backup power systems.

Note: Protect yourself and the community around you by ensuring that any generator backup systems are properly installed to ensure no back-feed into the power grid. Electrical systems must be wired to exclude regular electric power.

## *Part B: During a Wildfire*

### 14. Information Sources

One of the first steps in any emergency is to learn as much about the situation as possible from a credible source. In wildfire emergencies, local governments work closely with the BC Wildfire Service to contain and control wildfires, but fire behaviour can change rapidly. Factors that influence wildfires include winds, humidity, temperature, the types of vegetation being burned, and the slope of the land.

If a major wildfire threatens populated areas, the local government will consider issuing an Evacuation Alert, or an Evacuation Order. Here are some terms to know:

**Evacuation Alert** – Under an Evacuation Alert, people have time to collect their family members and personal items, and to prepare to move to a safe area. Producers may also have enough time to protect their agriculture operation and livestock. Some wildfires advance quickly and will not allow time for an Evacuation Alert.

**Evacuation Order** – If an Evacuation Order is issued, everyone must leave immediately. Producers may be able to leave livestock to shelter in barns or move them to open fields. The important thing is to quickly get everyone to safety. In some cases, producers may be allowed to return to their property for short periods to perform essential livestock and crop management services including attending to their animals, although this is not guaranteed.

**Evacuation Rescind** – A Rescind is issued when the Incident Commander determines it is safe for residents and livestock to return home. The local government will provide information to returning residents on potential hazards and safety precautions.

The status of the Evacuation will be communicated via the local news media, perhaps through an evacuation notification team, and the local government website (generally Regional District website). Social media may also be utilized when available and staffed. It is important to follow instructions and evacuate when ordered to do so. Life and safety is top priority and emergency responders will not be allowed to endanger their lives to rescue anyone who does not evacuate.

This section of the Wildfire Plan includes contact information for the current sources of information, including local media, the regional districts and BC Wildfire Service.

**Use these steps to customize the Workbook for your information and authority sources (local and provincial) to ensure you will be able to stay up to date on the wildfire situation.**

- 1. Use section 14, *Information Sources* in the Workbook to confirm the news and authority sources to consult in during a wildfire.
- 2. Check with your Regional District for any emergency notification systems currently in place and register if available.

## 15. Decision Guide for Livestock Protection

***[Skip to Section 20 if you do not have livestock on your property]***

The calm period before disaster strikes is a good time to explore some options for protecting livestock from a wildfire. Consider these four options in selecting the best way to protect the animals:

**Option 1: Shelter livestock in barn.** This option means keeping animals in a structure on the farm/operation, such as a barn, where they will be protected while personnel evacuate. This may be the best option if FireSmart measures, sprinklers

and other protections are in place at the time of the emergency.

**Option 2: Move livestock to an on-site outdoor location.** Under this alternative, some or all animals would be moved to a pasture, open field, or other outdoor area that would provide protection from the threat.

**Option 3: Relocate livestock off site.** Relocating livestock means moving them off the farm/operation and away from danger. In a situation where a wildfire threatens a large area, this may require moving animals out of the region.

**Option 4: Free the animals.** In some situations, it may be best to open gates and cut fence to allow animals the freedom to protect themselves. This may be the only option if there is no time for other options, it is safe to do so, and the freed animals would not endanger others, such as motorists on a roadway.

There are risks with all the options, but the producer should select the approach with the greatest chance of success, all things considered.

Section 15, *Decision Guide for Livestock Protection* of the Workbook should be used when a wildfire emergency presents itself. Producers may wish to adopt a different option for each type of animal. For example, cows may be allowed to shelter in barn, while horses are relocated.

**Take these actions to ensure the Wildfire Plan reflects the available options for livestock protection.**

1. Using section 15 of the Workbook, *Decision Guide*, confirm the options that are available for livestock protection during a wildfire emergency.
2. Refer to sections 16, 17, 18 and 19 of the Workbook to help determine viable alternatives for livestock protection.

## **16. Checklist for Sheltering Livestock in Barn**

Sheltering animals in a barn means moving or confining the animals to a protected structure on the farm. This is a particularly important option for dairy herds and large poultry flocks that are difficult to relocate. Considering a wildfire threat, a protected barn or shed is one that has:

- Reduced combustible materials around 10 m from farm structures
- Fire resistant materials
- Sprinkler protection, with suitable water pumps and backup power

**Consider these actions to confirm that sheltering-in-barn would protect livestock.**

- 1. Determine if there is a structure or site on the farm where animals will be protected from the wildfire.
- 2. Determine if animals that are sheltering in place will have access to food sources, water, and ample living space. **An evacuation order may be in place for many days, and producers may not be allowed to return even temporarily to tend to animals due to extreme risks.**
- 3. Identify any actions in section 16 of the Wildfire Plan that are needed in an emergency to shelter livestock in a barn.
- 4. Show on the map for the Wildfire Plan any structures that may be used for sheltering livestock.

## **17. Checklist for Moving Livestock to On-Site Outdoor Location**

Depending on the farm layout, there may be an outdoor location where animals can escape the threat. Such protected areas may include a pasture that can be wetted with sprinklers, a heavily-grazed area, or a plowed field.

An outdoor area used to shelter animals should be:

- At least 0.5 ha (1 acre) in size
- At least 100 m from nearest timber
- Free of combustible fuels (mowed, grazed to stubble, plowed, or irrigated)
- Free of barbed-wire fence
- Free of overhead powerlines or other falling hazards
- Have enough water and feed for 3 days
- Have more than one route in and out

**Confirm that moving animals to an open field would provide protection.**

- 1. Determine if there is a site on the farm where animals can be moved to protect them from a wildfire.
- 2. Determine if the animals will have access to food sources, water, and ample living space.
- 3. Record the actions in section 17 of the Wildfire Plan that must be followed to move animals to an open area.

- 4. Show on the map for the Wildfire Plan all locations that may provide protection for outdoor animals.

## 18. Checklist for Relocating Livestock

Relocating animals off the farm may be appropriate, depending on characteristics of the wildfire, the level of preparedness, the type of animal, and the time available.

Identifying a “buddy farm” ahead of time is one of the most important steps in preparing for livestock relocation. A buddy farm is one that has agreed to receive and care for animals from the threatened property. Arranging for the trucks, trailers, drivers, and handlers needed to transport animals is also important to complete before an emergency strikes.

**Note that the Evacuation Alert phase is the preferred time for relocating livestock, when time is available. During an Evacuation Order, the RCMP will strictly enforce traffic flows that prioritize the movement of residents to safety, and will only allow livestock movement if it does not interfere with the movement of people and emergency operations.**

**If relocating livestock is a potential option, complete the following actions.**

- 1. Determine which animals are suitable for relocation, considering loading time requirement for different species. Record which animals should have priority for relocation in case time is short, using section 18, *Checklist for Relocating Livestock*.
- 2. Locate and prearrange one or more off-farm sites (including buddy farms) for the livestock. Include the name, address, and contact information for each location in the Wildfire Plan.

When identifying a buddy farm, it is important they be located in a different area not likely to be impacted by the same wildfire. To avoid confusion and misunderstanding, arrangements may be agreed to and documented in a mutual aid agreement or memorandum of understanding. Considerations include: channels of communication; extent/type of assistance to be provided; who will bear costs incurred; and annual site visit and review of emergency plans, animal inventory, and biosecurity requirements, ALERT (see Part E *Resources*) provides supports and tools to assist in pre-planning.

- 3. Select a method for quickly identifying farm animals that do not already have ear tags, brands, or other identifying marks. Some “just-in-time” methods include paint on hooves and collaring.
- 4. Determine transport equipment required to move selected animals, appropriate loading facilities, and ability to maneuver haulers in and around the farm.
- 5. Indicate on the *Agriculture Operation Map* the locations for loading the different types of animals.

- 6. If possible, identify the individuals or organizations that can haul the livestock to the off-property relocation sites, and turnaround time for multiple trips. Use section 18, *Checklist for Relocating Livestock* to record hauler contact information.
- 7. For each animal type, list the special feed, water, medications, and care that should be available at the relocation site. Indicate who will provide for these items.
- 8. Recognize special planning requirements for relocating certain livestock, especially poultry and milking herds. (e.g. buddy farm locations, milking capacity, transport challenges). Be aware of biosecurity and disease control requirements for relocating your animals to the selected off-farm site and ensure complete documentation of required vaccinations.
- 9. If government funded assistance will be required on an event specific basis, check with the local government Emergency Management and/or Ministry of Agriculture for current policy and procedures regarding pre-approval requirements prior to evacuation (<https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/business-market-development/emergency-preparedness/livestock-relocation>).

Note, during emergencies, the primary responsibility for livestock protection lies with the individual producer and if they have the ability to relocate livestock themselves, they are encouraged to do so. However; response costs incurred directly by the producer are not eligible for reimbursement.

BC government support for livestock relocation generally targets only commercial producers. Non-farm business livestock owners or producers with pets may obtain support from the Canadian Disaster Animal Response Team (CDART) or BCSPCA.

If relocating livestock during a wildfire is not possible, animals may still be adequately safeguarded by protecting structures ahead of time (e.g., FireSmart milking parlours).

## 19. Checklist for Opening Gates, Cutting Fences to Free Animals

In some situations, such as rapid-fire spread, the best thing may be to free the animals to green space or pasture. Animals will most often seek safety if unconfined. The Wildfire Plan should identify if it is safe to free your animals and how to do so, such as where to open gates and to cut fences that direct animals away from roadways and populated areas.

Freeing animals may present risks to people nearby. The degree of risk depends on the location of the released livestock and proximity to busy roadways and routes that may be used for evacuation of people. Carefully evaluate these risks when considering the opening of gates and cutting of fences in a wildfire emergency, because you may be held responsible for damage caused by animals that are let free. The key test will be what a reasonable and prudent person would do with your experience and knowledge.

Note that emergency response crews should be informed if any large animals are freed, such as cattle and horses. They may be able to help protect the animals and other people from harm.

**If freeing animals is a suitable option, consider the following actions.**

- 1. Determine which gates should be opened, and indicate them on the *Agriculture Operation Map*.
- 2. Identify where fences may be cut or opened to allow animals to escape to pasture. Show these locations on the *Agriculture Operation Map*.

## 20. Checklist to Create a Fire Break

If time allows, agriculture operations will gain additional protection from fire breaks that impede the spread of ground-based fire. Using a tractor and plow implement, for example, producers can create a reduced-vegetation strip around the perimeter of the operation, or around structures. Be aware of underground service lines.

**Consider the following actions to help with creating a fire break when needed.**

- 1. Review the checklist in Workbook section 20, *Checklist to Create a Fire Break*, to ensure it describes the areas to be plowed.
- 2. Prepare a rough sketch of the areas to be plowed to provide fire breaks.

## 21. Checklist to Deploy Sprinklers

If sprinkler deployment is possible (from section 10-3), there are a few steps to take now to ensure the Wildfire Plan provides the proper guidance during a wildfire.

**Consider the following actions to ensure the Plan assists with sprinkler activation.**

- 1. Review the checklist in Workbook section 21, *Checklist to Deploy Sprinklers*, to ensure it includes all steps needed to quickly set the system in operation.
- 2. The best instructions are ones that have been tested. Take the time to set out the selected sprinkler systems and record the steps as if instructing someone who has offered to help.

## 22. Checklist for Operating Backup Generator

If alternate power systems are available on the property, prepare the instructions in section 22 of the Wildfire Plan to allow them to be set up and activated quickly.

**Take these actions to include the proper instructions for operating backup generators.**

- 1. Review the checklist in Workbook section 22, *Checklist for Operating Backup Generator*, to ensure it includes all steps needed for quick operation.
- 2. Test the instructions and ensure all the equipment can be easily located.
- 3. Ensure that grid-based electric systems are disengaged when the backup generator system is operational.

## 23. Checklist for Personal Evacuation

When the local government or Province issues an Evacuation Order, all persons must leave the defined area. Road access to the evacuated area will be secured by the RCMP and you will not be allowed to return without a permit. The Wildfire Plan should anticipate how separated family members and staff can check with each other once they have dispersed.

Evacuated persons are encouraged to register at a local Reception Centre, even if they do not need assistance. This can assist with family reunification, later emergency care, and current emergency information.

Use section 23, *Checklist for Personal Evacuation* to prepare a checklist of actions that should be taken before leaving the operation.

**Consider the following actions to prepare for personal evacuation.**

- 1. Consult the Workbook for contents of a home Grab 'n Go Kit. Make a list and assemble the items in a kit. Keep this kit in a vehicle or other location for ease of access, availability.
- 2. In addition to the Kit, prepare a list of operation/farm-related items that should be taken. Add these items to section 23 of the Workbook, *Checklist for Personal Evacuation*. Such items may include:
  - Handling equipment such as halters
  - Cages
  - Blankets
  - Appropriate tools for each kind of animal
  - Building keys, critical documentation
  - Employee records

3. Identify a single person outside the region that members of the family and staff can contact if they are separated during the evacuation.

## 24. Checklist for Visitor and Employee Evacuation

***[Skip to Part C if you do not receive visitors(tourists) or do not have employees on your property that would be at risk during wildfire season]***

Visitor evacuation will primarily be a concern of agritourism or other agricultural operations that receive a significant number of visitors to their operation at any time during wildfire season. This may be applicable to operations with on-site wineries, restaurants, U-pick, on-site tours or accommodation, and farm gate or other retail sales.

Employee evacuation is an important consideration for all operations; but is of particular importance for agriculture operations with large numbers of full time or seasonal employees on site during the wildfire season. In some cases, these employees may also be residing on site.

If you employ out-of-province personnel, provide documentation to confirm their employment at your operation in order for them to be eligible to receive assistance from Emergency Social Services at evacuation reception centres. Keeping an employee list and employee identification records centralized and ready to grab and go is recommended.

1. Determine key roles and responsibilities for implementing the evacuation plan. This includes the primary and backup decision-makers/coordinators and roles for other participants appropriate to your operations. Ensure that contact information for designated individuals are included in Section 4 – *Emergency Contacts*. The decision maker/coordinator responsibilities will generally include the following:
- Review and update the Evacuation Checklist annually,
  - Ensure all emergency evacuation roles are assigned and participants are informed/aware of their responsibilities
  - Determine when/if to pre-emptively limit visitor access
  - Initiate and coordinate evacuation
2. Determine who to communicate with to keep employees and visitors informed during wildfire emergency as well as what information is required to be communicated and who is responsible. This will include monitoring relevant and reliable sources of information (See Section 14) to keep informed of latest developments with respect to local or nearby wildfire activity/threat, and evacuation alerts or orders to aid in decision making. The Tourism Industry Association of BC and Destination BC may have resources, updates, and links to share with visitors and to inform yourself (see Section E – *Resources*).

3. Identify any barriers to effective communication and develop appropriate modes and methods of communication:
- In the event of limited mobile phone reception, consider handheld satellite communications devices with 2-way text communication capability such as inReach.
  - In the event of language barriers (e.g., owner/operators, employees, and visitors with no English or English as a second language). Create a user-friendly copy of the evacuation plan with visuals (map), clear instruction, and translation of essential information as required. (Translation services may be available from the local Immigrant Services Society or agriculture associations).
4. Identify routes and exits from your operation, considering all buildings and business sites where visitors and employees may be located at any given time. Buildings or locations for visitors may include wine cellar, tasting room, restaurant, picnic area, parking lot, in-field tour, in-field picking, etc.. Identify any egress constraints (single exit or egress road) and special procedures required to limit congestion and ensure safe exit (e.g. a pilot car and tag car process). Orderly exit and minimizing traffic jams is critical. Identify any challenging aspects such as locating and evacuating visitors and employees that are dispersed over a large site such as U-pick operations and orchards or vineyards. Make note of all roads, trails and gate locations. Consider designating a marshalling point before evacuating the property.

Contact the local Regional District if you need assistance in planning your evacuation route; particularly if access options are limited and you are in an area at risk of entrapment.

5. Identify a post-evacuation assembly area recognizing that this may be subject to change if your designated assembly area is inside the evacuation zone (i.e., emergency centre or designated safe zone such as a school ground or open public space safe from fire).
6. Develop a system for accounting for personnel and visitors which includes designating an individual or individuals responsible. The most effective system will depend on the size and complexity of your operation. Options include visitor and employee contact lists, as applicable. In some operations it may be difficult to control and track people coming and going. As a precautionary measure, consider limiting entry to parts of the property during the alert stage (recognize that alerts may, however, be in place for weeks).

Conduct a final property sweep at the time of evacuation to ensure no visitors or employees are missed.

- 7. Confirm emergency shut-off procedures for utilities, equipment and processes as applicable. Know where your electrical panel, gas and water shut-off valves are located and how to turn them off. Note, only a registered contractor can safely turn gas back on. Similarly, know the locations and shut-off procedures for any equipment or processes to be shut down before evacuating.
- 8. Confirm procedures for assisting visitors and employees with disabilities or mobility issues.
- 9. Ensure designated employees are aware of the evacuation procedures and routes and that these can be effectively communicated to visitors during an evacuation.

It is recommended that a mock evacuation be conducted annually or periodically subject to staff changeover and experience.

Wildfire evacuation training and hazard awareness for employees can be integrated into your regular worksite safety program (employee orientations, safety meetings, and training). Simplified, user-friendly versions of the evacuation plan may be distributed to employees at the time of orientation.

### **During an Evacuation**

- 1. Follow instructions provided by emergency officials. These may be delivered via website, social media, notifications to site, etc..
- 2. Complete emergency shut-off procedures for utilities, equipment and processes.
- 3. Take your individual Grab 'n Go Kits and any critical paperwork. Keep copies of important records in a waterproof, fireproof and portable container.
- 4. Assist individuals with mobility issues or disabilities.
- 5. Account for personnel and visitors after evacuating including a final sweep of the property.

### **After Evacuation**

Once the Evacuation Order is rescinded emergency officials (local government or Province) will advise when it is safe to return and if there are any special considerations to ensure the safety of visitors and staff at your operation.

## Part C: After a Wildfire

### 25. Checklist for Damage Assessment

Once the danger has passed in an emergency, the local government or Province will rescind an Evacuation Order and allow residents to return to their homes and agriculture operations.

If the operation has suffered any damage, there are several actions that can be taken to reduce the impact and to speed recovery. This section of the Wildfire Plan contains reminders of things to do after an emergency.

**The following steps will help clarify the actions to take in assessing damage after a wildfire event.**

- 1. Consider the checklist shown in section 25 of the Workbook, *Checklist for Damage Assessment*, and make any revisions that would better suit your operation.

### 26. Checklist for Initiating Insurance or Other Loss Coverage

Major wildfire emergencies may have catastrophic consequences for an individual agriculture operation. Some damage may be unavoidable, regardless of the level of preparedness.

Producers in BC have access to several approaches to managing these financial losses, as previously noted in Section 12 and as noted below. These include:

**Commercial Insurance** (see Section 12 of this Guide)

#### **Federal/Provincial Government Risk Management Programs**

These include insurance and income protection programs as noted in Section 12.

Currently, the *AgriRecovery* program provides a coordinated government framework for disaster relief on a case-by-case basis. Funding may be available for losses incurred during a declared disaster and not covered by other programs, and may be cost-shared between the provincial and federal governments. More information on this risk management program is available at:

<http://www.agr.gc.ca/eng/?id=1398968999929>

(Note: government programs are subject to review and change; check with your local Ministry of Agriculture contact for the current program, see contact information in Workbook section 4.)

### **Provincial Disaster Financial Assistance**

Under the *BC Emergency Program Act and Regulations*, producers may be eligible for disaster financial assistance for losses incurred in events declared a disaster and for which insurance was not available. For details, see the information from Emergency Management BC at:

<https://www2.gov.bc.ca/gov/content/safety/emergency-preparedness-response-recovery/emergency-response-and-recovery/disaster-financial-assistance>

### **BC Wildfire Service Fire Suppression Disturbance Rehabilitation**

Sites impacted by fire suppression activities are required to be rehabilitated to ensure that the natural drainage patterns are maintained and fuel hazards are minimized. This includes mitigation of impacts to land features (i.e., watering holes, pastures) on private land. Producers may also be eligible for compensation for loss or damage to structures (i.e., buildings, fencing, waterlines) damaged as a direct result of fire suppression activities on private property. Contact the local BC Wildfire Service fire zone office for information (see contact information in Workbook section 4).

Some disaster relief programs are time limited and the funds available may be limited. Initiate a claim for assistance as soon as possible and within the program-specific application time limits following declared completion of the wildfire event.

Insurance, provincial risk management programs, and disaster financial assistance represent the last lines of disaster defence. Insurers and governments at all levels expect producers to take reasonable steps to protect their operations and livestock, and to not rely only on disaster recovery programs.

Risk reduction efforts, combined with a Wildfire Plan and insurance, provide the breadth of protection needed by producers and livestock owners in the Okanagan.

### **Use the following steps to initiate insurance and other loss coverage.**

1. Review the basic insurance information for the agriculture operation in section 12, *Insurance Information*.
2. Contact insurance agent (or government program agent if you have paid into/subscribed to a business risk management program) to report the damage (refer to the Guide section 12, *Insurance Information*).

Remember that an insurance broker is an advisor to you and can explain things. On the other hand, an insurance adjuster works for the insurance company and is there to determine if and to what degree you are covered for damages they can verify. It is an important distinction and may affect who or how you ask questions.

- 3. Complete a thorough damage assessment (as per the Workbook and Section 25 of this Guide), keep accurate records (notes, receipts, photographs) and document the value of lost assets. Assemble all required supporting documentation and complete and submit claims for losses. Do not rush to settle an insurance claim; be aware that the real damage may not be apparent right away.

## 27. Checklist for Recovery

Recovering from a disaster, such as a wildfire, may take months or even years. Much depends on the extent of damage and the degree of collaboration that draws the community together.

Following a significant disaster, the Regional Districts will continue to share information and coordinate resources within the region.

**Follow these steps to consider the disaster recovery phase of a wildfire event, and the potential actions for the operation.**

- 1. Review the actions in section 27 of the Workbook, *Checklist for Recovery*, and make any amendments and additions that suit the operation.
- 2. Speak with members of the farmer institutes and agriculture associations that support your agriculture commodity group within the region and enquire about their ability to assist in disaster recovery.
- 3. If your operation is damaged, consider reconstruction in ways that protects livestock and operations from future threats, such as including combustion resistant building materials for structures and fences.

## Part D: When Wildfire Plan is Complete

### 28. Finalizing, Storing and Sharing the Wildfire Plan and Summary

Once all the steps are completed in preparing the Wildfire Plan, it is time to make sure the plan is available and will be used as designed.

#### Consider these steps in finalizing the Wildfire Plan.

1. Make sure all the critical elements of agriculture operation information (including maps and response plans) are included in the Wildfire Plan, both in the electronic file and a master paper copy.
2. Finalize the Table of Contents for the *Wildfire Plan*. Click on the Table and then on the tab “Update Table.”
3. Make multiple copies of the *Wildfire Plan*, and store copies in different locations around operation buildings, with one copy in a personal vehicle. Also, add an electronic copy to an off-site location, such as a family member or in Canadian cloud storage.
4. Ensure that all family members and personnel understand the contents of the *Wildfire Plan* and know where to find it. Talk it over with them so all understand the steps needed to protect the operation from a major wildfire emergency.
5. Complete and share the separate *Wildfire Plan Summary* (Appendix 1 of the Workbook) with your regional district/local government emergency management, and (as applicable) other external agencies responsible for emergency management and wildfire response (e.g., fire departments, BC Wildfire Service). The Summary may be shared in advance of the wildfire season, or on an incident by incident basis in order to support identification and protection of your operation, as possible.

Because agriculture operations and contacts are likely to change over time, **it is important to review and update the Wildfire Plan at least once each year.** Revisit each section of this Guide to confirm essential information and your choices.

## Part E: Additional Resources

The *Agriculture Operations Wildfire Preparedness and Mitigation Plan Workbook* and *Guide* complement other wildfire and emergency guidelines, reports, and documents that may be of interest, accessed through the websites shown here.

- **Animal Lifeline Emergency Response Team (ALERT)** – A volunteer-based organization that provides emergency services for domestic animals and livestock in a disaster. Volunteers also support neighbourhood pre-planning and development of response kits, mutual aid agreements and other training and resources.

<http://alertcanada.org/>; 250-681-2198; [info@alertcanada.org](mailto:info@alertcanada.org)

- **BC Assessment Authority** – Administers tax assessments for all private properties in BC which are identified by Land Title PID and Folio Number.

Folio Number (or Assessment Roll Number) is a number assigned to private property for assessment administrative purposes normally printed in the top right corner of an *Assessment Notice*. For most properties one roll number is used for each specific property. It is possible that one property is comprised of several roll numbers, or one roll number can cover several properties. This number may also be as a spatial link to local government/regional district mapping.

<https://info.bcassessment.ca/About-Us/Glossary>

PID is a unique nine-digit number used to identify titled parcels of land in BC. The PID can be found on a property's tax assessment notice or through BC Assessment's e-value BC website. This number may be also be used as a spatial link with other government mapping.

<https://www.bcassessment.ca/>

<https://www2.gov.bc.ca/gov/content/taxes/property-taxes/annual-property-tax/understand/tax-notice/sample>

- **BC Climate Action Initiative** – The BC Agriculture & Food Climate Action Initiative supports farms in adopting a proactive approach to climate change issues.  
<http://www.bcagclimateaction.ca/>
- **BC Emergency Preparedness Tips** – The BC Ministry of Agriculture offers a 4-page guide on emergency preparedness for livestock and crop producers.  
[https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/farm-management/emergency-management/factsheets/900\\_200-3\\_emergency\\_preparedness.pdf](https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/farm-management/emergency-management/factsheets/900_200-3_emergency_preparedness.pdf)
- **BC Environmental Farm Plan** – The BC Agricultural Research and Development Corporation manages a program that enhances the sustainability of any farm.  
[www.bcac.bc.ca/ardcorp/program/environmental-farm-plan-program](http://www.bcac.bc.ca/ardcorp/program/environmental-farm-plan-program)
- **BC Horse Council** – 250-679-3999. Contact: Gord Mackenzie. BC Horse Council Aldergrove: 1-800-856-4302

- **BC Production Insurance** – This insurance is available through the BC government's Business Risk Management programs. Production insurance covers crop losses due to wildfire including yield, quality and stock loss (a wide range of crops are insurable).  
<https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/programs>
- **BC Wildfire Service** – This website offers information about fire bans and current wildfire threats, including the Cowichan Valley region.  
<http://www2.gov.bc.ca/gov/content/safety/wildfire-status>
- **Business Insurance and Risk Management Tools for Agriculture.** This BC Ministry of Agriculture Factsheet No. 900.500-1 outlines business insurance and risk management tools for agriculture.  
[https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/farm-management/emergency-management/factsheets/900500-1\\_business\\_insurance\\_and\\_risk\\_management\\_tools\\_for\\_agriculture\\_2015.pdf](https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/farm-management/emergency-management/factsheets/900500-1_business_insurance_and_risk_management_tools_for_agriculture_2015.pdf)
- **Cariboo-Chilcotin Agriculture/Wildfire Preparedness Project – Opportunities and Barriers to Wildfire Risk Mitigation** – This report offers information on proactive intervention to reduce wildfire risk on rangelands (including treatment considerations and applicable regulations) and emergency planning measures such as sprinkler protection and backup power.  
<https://www.bcagclimateaction.ca/wp/wp-content/media/CB01-Wildfire-Preparedness-and-Mitigation-OpportunitiesBarriers2016.pdf>
- **Canadian Disaster Animal Response Team (CDART)** – Three branches of this volunteer-based organization in BC provide preparation for and actual rescue and shelter of domestic animals in a disaster.  
<http://www.cdart.org/>; [info@cdart.org](mailto:info@cdart.org)
- **Emergency Management Guidebooks for Producers** – The Ministry of Agriculture has prepared three emergency management guides for specific commodity groups and one for small mixed farms.
  - Beef – [https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/farm-management/emergency-management/beef\\_emergency\\_management\\_guide.pdf](https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/farm-management/emergency-management/beef_emergency_management_guide.pdf)
  - Dairy – [https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/farm-management/emergency-management/dairy\\_emergency\\_management\\_guide.pdf](https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/farm-management/emergency-management/dairy_emergency_management_guide.pdf)
  - Pork – [https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/farm-management/emergency-management/bc\\_pork\\_emergency\\_management\\_guide\\_march2015.pdf](https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/farm-management/emergency-management/bc_pork_emergency_management_guide_march2015.pdf)
  - Small Mixed Farms – [https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/farm-management/emergency-management/900600-4\\_em\\_small\\_mixed\\_farm\\_guide.pdf](https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/farm-management/emergency-management/900600-4_em_small_mixed_farm_guide.pdf)
- **Farmer ID Card Program** – The BC Agriculture Council (BCAC) voluntary Farmer ID program provides access to coloured fuel, farmer only tax benefits, insurance and

travel discounts and exclusive offers, industry alerts, and news. The Farmer ID is government recognized.

<https://www.bcac.bc.ca/about-farmer-id-card>

[https://www.bcac.bc.ca/sites/all/themes/bcac/images/BCAC\\_FarmerIDcard\\_Sheet\\_FINAL.PDF](https://www.bcac.bc.ca/sites/all/themes/bcac/images/BCAC_FarmerIDcard_Sheet_FINAL.PDF)

- **FireSmart Protecting Your Community** – In addition to the *Home Owners FireSmart Manual*, this comprehensive guide offers tips on protecting livestock and feed crops.  
<https://www.firesmartcanada.ca/images/uploads/resources/FireSmart-Protecting-Your-Community.pdf>
- **Interior Horse Rescue Society** – This Kelowna-based non-profit society provides horse rescue and adoptions.  
[https://www.equinenow.com/farm/bc\\_interior\\_horse\\_rescue.htm](https://www.equinenow.com/farm/bc_interior_horse_rescue.htm); 250-575-8253
- **Livestock Relocation** – This Ministry of Agriculture site provides an overview of provincial supports for livestock relocation (including relevant policy, procedures and application for relocation assistance) as well as resources for non-farm business livestock owners at:  
<https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/business-market-development/emergency-preparedness/livestock-relocation>
- **Planning for Livestock Relocation During an Emergency Factsheet** – This 2-page guide lists specific actions to take when considering livestock relocation.  
[https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/farm-management/emergency-management/factsheets/91\\_900400-1\\_planning\\_for\\_livestock\\_relocation\\_during\\_an\\_emergency\\_july\\_2016.pdf](https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/farm-management/emergency-management/factsheets/91_900400-1_planning_for_livestock_relocation_during_an_emergency_july_2016.pdf)
- **Premises ID** – The British Columbia Premises ID program links livestock and poultry to geographic locations and allows for rapid notification of livestock and poultry producers during emergencies. The Program was established to reduce the impact of livestock disease or natural disaster by gathering and organizing information about the location of animals, the types of animals at each location and how to contact those responsible for the health of those animals quickly. Registration is not mandatory and is applicable to producers that raise livestock or poultry or transport them to and from the premises. A premise is a parcel of land where animals, plants or food are grown, kept, assembled or disposed of and includes farms, stables, hobby farms, pastures and other places. For further information on the Program, eligibility and to register (online registration and paper form options), visit the following website:

<https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/programs/premises-id>

- **Workbook Agriculture Appendix for BC Local Authority Emergency Plans** – This Plan contains guiding policies, procedures and forms for local authorities coordinating agriculture emergency relocation support. Page 10 has a comprehensive list of agriculture associations and contacts.

[https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/farm-management/emergency-management/relocation/900600-5\\_local\\_gov\\_em\\_plan\\_ag\\_appedix\\_workbook.pdf](https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/farm-management/emergency-management/relocation/900600-5_local_gov_em_plan_ag_appedix_workbook.pdf)

- **Tourism Industry Association of BC (TIABC)** – The TIABC and partners have developed an Emergency Preparedness guide and plan workbook for tourism operators and provides a downloadable public service announcement

<http://www.tiabc.ca/advocacy-policy-development/bctourismatters/emergency-preparedness/>

<http://www.tiabc.ca/advocacy-policy-development/bctourismatters/wildfire-psa-2016/>

<http://www.tiabc.ca/tiabc-in-the-news/bc-wildfires-2017/>