



Evacuation and Shelter-in-Place Plan

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1. INTRODUCTION

The City of Abbotsford Evacuation and Shelter-in-Place Plan is an all hazards plan intended to be implemented should the need arise for an Evacuation and/or Shelter-in-Place Order. The Plan is a supplement to the City of Abbotsford's Emergency Response Plan and is intended for use during the advance planning and/or response phase of an emergency.

Every emergency is different and could require a unique response from the City. In all situations, the assistance and collaboration of City Personnel, critical infrastructure operators, supporting agencies/ organizations, and the public is critical to a successful response.

The objectives of the *City of Abbotsford Evacuation and Shelter-in-Place Plan* are to:

- Enhance decision making;
- Identify potential hazards;
- Identify initial strategies for implementation;
- Establish procedures and guidelines for the delivery of a coordinated response to incidents requiring evacuation or shelter-in-place;
- Establish communication protocols for public and stakeholder notification; and
- Identify factors to be considered in the implementation of public safety actions.

1.1 Out of Scope

Out of scope for this Plan are:

- active threat incidents;
- evacuation of single residences;
- evacuation of Provincial or Federal (Crown) Land;
- evacuation of responders/Abbotsford personnel;
- evacuation of institutions such as hospitals, care facilities and correction facilities;
- evacuation of livestock; and
- long-term shelter-in-place, e.g. pandemic.

1.2 Authority

As identified within the Emergency Program Act (British Columbia):

- A Local Authority is at all times responsible for the direction and control of the Local Authority's emergency response;
- A Local Authority must establish and maintain an emergency management organization to develop and implement emergency plans and other preparedness, response and recovery measures for emergencies and disasters and, that the municipal council must establish and maintain an emergency management organization with responsibility for the whole of the municipality;

- A Local Authority or a person designated in the Local Authority's local emergency plan may, whether or not a state of local emergency has been declared under section 12 (1), cause the plan to be implemented if, in the opinion of the Local Authority or the designated person, an emergency exists or appears imminent or a disaster has occurred or threatens in:
 - 1) the jurisdictional area for which the Local Authority has responsibility, or
 - 2) any other municipality or electoral area if the Local Authority having responsibility for that other jurisdictional area has requested assistance.
- Issue Alerts, Orders, and Rescinds (Evacuation or Shelter-in-Place).

1.3 Definitions

1.3.1 Evacuation

A temporary but rapid removal of person(s) from a specified area that is threatened or impacted as a result of an emergency or as a precautionary measure for the purposes of protecting lives and/or ensuring public safety.

High-level summary of actions:

- Coordinate the evacuation of all specified areas.
- Provide instructions to the public to aid in the safe evacuation of the specified area.
- Organize transportation for individuals within the impacted area who do not have their own transportation.
- Establish a reception centre.
- Coordinate support services, inclusive of food, lodging, clothing, emotional support, information about the incident, and family reunification.
- Coordinate re-entry into and recovery of the impacted area(s).

EVACUATION STAGES

Evacuation Alert

A protocol used by Local Authorities to inform the public who are under threat due to a potential or impending danger.

Should there be a potential of a hazard impacting a specified area, the Local Authority should issue an Evacuation Alert. If the Alert is issued, the impacted community(ies) should initiate preparatory activities that align with the Alert.

Evacuation Order

A protocol used by Local Authorities that instructs all individuals in a specified area to leave immediately.

Evacuation Rescind

A protocol used to inform members of the public that the specified area is now safe (habitable). It is a retraction of the Evacuation Order.

EVACUATION TYPES

Unplanned (or “Tactical”) Evacuation

An evacuation of individuals who are in imminent danger from an emergency situation and need to evacuate immediately before any formal order can be made. The decision for a tactical evacuation is usually made by the initial first responders who arrive at the incident. While no State of Local Emergency (SOLE) is required for a tactical evacuation to take place, a formal Evacuation Order and SOLE for the area involved should be issued if residents need to remain out of the area for a prolonged period.

Planned (or “Strategic”) Evacuation

An evacuation of individuals who are at risk from an emergency that occurs with advanced warning. In these types of evacuations, an Alert is issued to allow individuals at risk the ability to begin preparation for the evacuation of the specified area within a defined time period.

1.3.2 Shelter-in-Place

During an emergency, individuals may be required to take refuge (shelter) within a building or vehicle in order to minimize risks to their health and safety. This is typically required during environmental hazard incidents, where hazardous materials are released into the atmosphere.

High-level summary of actions:

- Provide instruction to residents to aid in the safe sheltering of individuals within the specified area(s).
- Establish a shelter-in-place facility(ies) within the specified area(s).
- Coordinate support services, inclusive of emotional support, and information about the incident.
- Monitor environmental parameters for the specified area(s) to determine when a Shelter-in-Place Rescind can be issued.

SHELTER-IN-PLACE STAGES

Shelter-in-Place Order

A protocol used by Local Authorities that instructs individuals in a specified area to immediately take refuge (shelter) indoors.

Shelter-in-Place Rescind

A protocol used to inform individuals that the specified area is now safe (habitable). It is a retraction of the Shelter-in-Place Order.

2. PREPAREDNESS

In order to effectively implement evacuation and shelter-in-place processes and procedures, the City has undertaken a number of preparedness activities to aid with these response types, inclusive of:

- hazard identification;
- flood vulnerability assessment;
- vulnerable populations assessment; and
- community awareness and education.

2.1 Hazard Identification

2.1.1 Evacuation

Using an all-hazards approach, hazards identified for the City of Abbotsford that could result in evacuation include:

- earthquake
- flooding;
- hazardous material release (chemical, biological, or other hazardous substances in solid, liquid or gaseous form);
- interface fires; and
- other hazards which constitute a health or safety risk to individuals within the City.

2.1.2 Shelter-in-Place

Using an all-hazards approach, hazards identified for the City of Abbotsford that could result in the need to shelter-in-place include:

- earthquakes;
- hazardous material release (chemical, biological, or other hazardous substances in solid, liquid or gaseous form);
- storms: snow, severe wind or lightning storms resulting in downed powerlines, high levels of disaster debris or impacted access and egress routes; and
- other hazards which constitute a health or safety risk should individuals not take shelter, inclusive of radiation levels which fall outside of Health Canada's guidelines for human exposure.

2.2 Flood Vulnerability Assessment

The City of Abbotsford has invested in the Lower Mainland Flood Management Strategy (LMFMS), managed by the Fraser Basin Council, which is a regional collaborative initiative to review and protect the Lower Mainland from Fraser River and coastal flood risks. As part of the strategy, the region's vulnerability to two Fraser River scenarios was assessed and maps of

approximate flood extent and depth produced. Additionally, the City of Abbotsford Emergency Planning Committee further developed the evacuation plans for the three known floodplains (Sumas, Matsqui, Glen Valley) within Abbotsford (see [Appendix B – Flood Evacuation Route Plans](#)).

2.3 Vulnerable Populations

In order to support the diverse populations in the City of Abbotsford the needs of the following groups should be considered:

- Children attending elementary school, preschool, or daycare;
 - There are 30 public elementary schools and 16 public middle/secondary schools administered by the Abbotsford School District serving almost 18,500 full- and part-time students.
 - There are an additional 12 independent schools in Abbotsford.
 - There are over 100 licensed child care facilities within the city.
- Individuals with communication challenges: including those with limited ability to speak, see, and hear; read or understand English; limitations in learning and understanding;
- Individuals with mobility restrictions;
- Individuals with medical challenges;
 - In addition to the Abbotsford Regional Hospital and Cancer Centre (a 295-bed health care facility) there are a number of licensed residential health care facilities including independent/assisted living facilities, treatment centres, and hospices.
- Individuals with medically required supervision needs such as those with dementia or Alzheimer's;
- Individual with supervision needs: including prisoners;
 - There are three federal correction facilities located on federal reserve land near King Road just south of the TransCanada Highway, including the Matsqui Institution (rated capacity: 446 inmates), Fraser Valley Institution for Women (rated capacity: 112 inmates), and the Pacific Institution (rated capacity: 509 inmates).
- Individuals without transportation;
- Individuals with domestic animals (pets);
- At-risk individuals: e.g. the transient or homeless, those with substance abuse issues, mental health challenges, or those experiencing intergenerational trauma;
 - There are a variety of subsidized housing facilities and shelters in the city.
- Any other person who may be identified as requiring special consideration.

2.4 Community Awareness and Education

The City aims to ensure members of the public, City personnel, responsible parties, and support agencies/ organizations are informed of what to expect, what can be done, and what the City is doing to address an emergency.

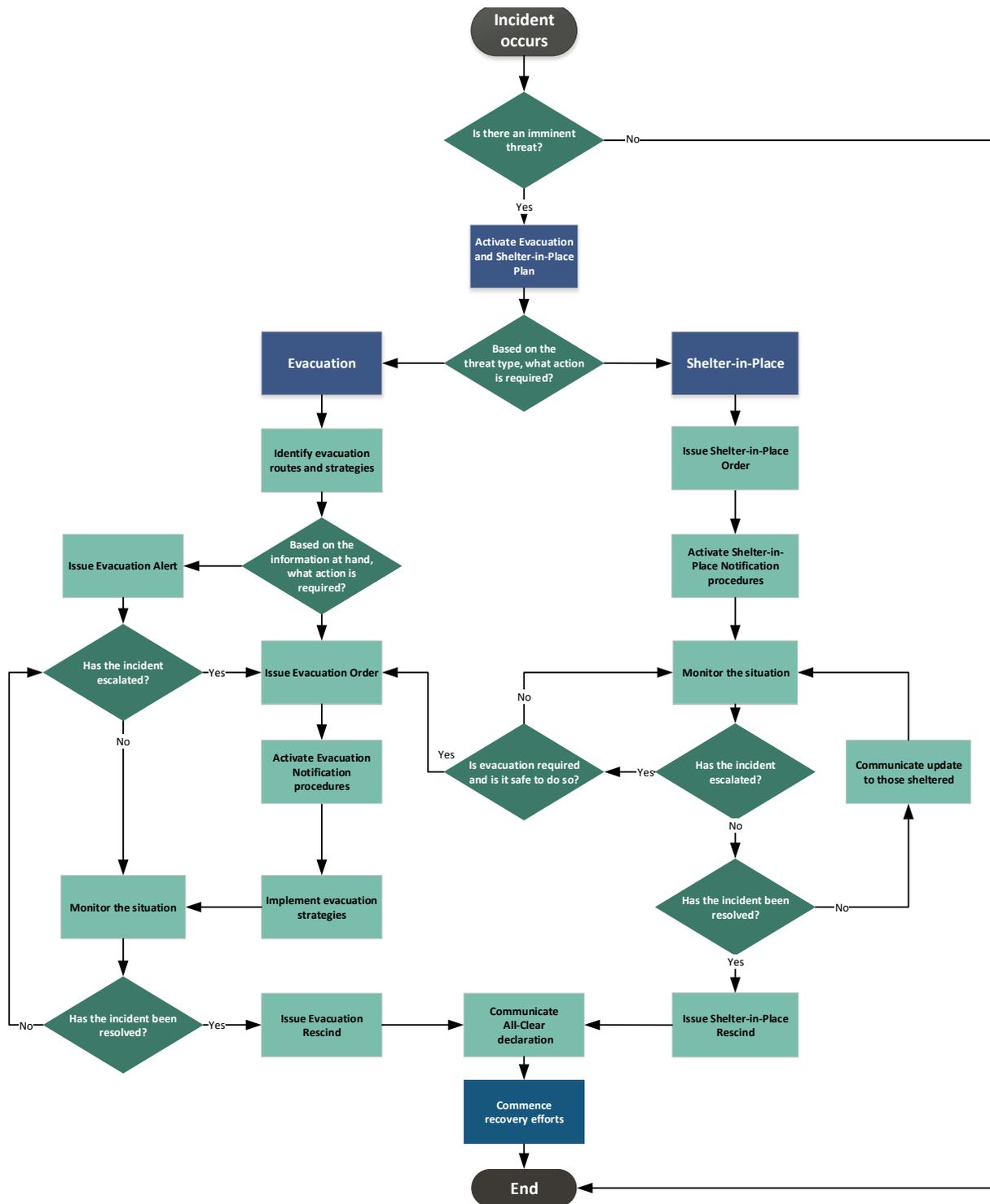
To support members of the public in increasing their level of preparedness, the following information is available for public consumption and use:

- [City of Abbotsford Emergency Program website](#) consisting of:
 - emergency kits and checklists;
 - know the risks (all hazards);
 - flood preparation; and
 - storm preparation.
- Trans Mountain Callout System (emergency notification system) for individuals who register for the service.
 - This self-registration service has been established for communities within the vicinity of Trans Mountain Sumas Terminal. Interested person(s) and businesses can register for this service through Kinder Morgan Canada's self-registration web portal (<https://kmc.sendwordnow.ca>).

3. PLAN ACTIVATION

Should an incident occur which places individuals in the city at risk, the City of Abbotsford EOC Director will activate the Plan. The decision will be based on information and incident details provided to the EOC Director from field personnel and/or the responsible party. For additional information regarding the activation decision-making process, refer to [Figure 1](#).

Figure 1 – Activation Decision Flowchart



4. EVACUATION

4.1 Considerations and Strategies

4.1.1 Evacuation Routes and Strategies

In the event of an evacuation, the City will determine a suitable evacuation route for the impacted community(ies).

When identifying a route, the following should be considered:

Phased Evacuation: a method of reducing congestion and demand for transportation resources during an incident that requires evacuation. Individuals in the area(s) of highest risk would be evacuated first through enforced traffic management.

Pre-identified Transportation Routes: routes used during routine operations that should be considered during the development of evacuation routes and strategies.

Pre-identified Evacuation Routes: suggested routes to be used in incidents that require individuals to evacuate a specified area, which should be referenced during the development of evacuation strategies.

- The City has a number of pre-identified evacuation routes developed for the Sumas Mountain area and the communities of Glen Valley, Matsqui Prairie, and Sumas Prairie. Information regarding the Pre-Identified Evacuation Routes are provided in [Appendix B – Flood Evacuation Route Plans](#) and [Appendix C – Sumas Mountain Evacuation Plan](#).

Traffic Control: a method of supporting traffic movement along evacuation routes. The primary method of controlling traffic is to establish traffic control points along evacuation routes for the purposes of directing traffic. Traffic control may also be required on other routes to minimize the impact on evacuation routes.

- Should traffic control be required, the Public Works Department will be tasked with managing all traffic control efforts, inclusive of performing flagging activities, and may request support from contract flagging companies.

Closure of Highway On and Off Ramps: the closure of highway on and off ramps to limit additional traffic in the specified area(s).

- Traffic Signal Coordination and Timing: the alteration of traffic signals intended to maximize traffic flow in the outbound direction and away from the area of risk during an evacuation.

Contra-flow Operations: the reversing of one or more lanes of a highway to allow for an increase in traffic flow in one direction.

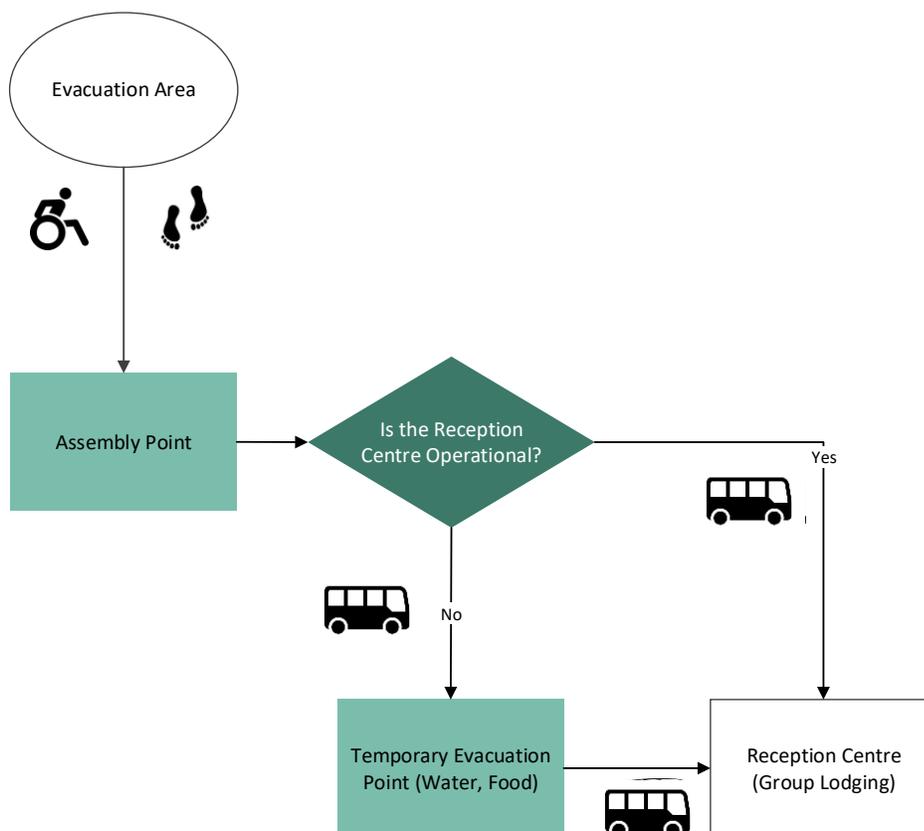
Should contra-flow operations be utilized, the Abbotsford Police, in consultation with the City Engineering Department, would take the lead on the development of the contra-flow plan. In the case of contra-flow operations on Highway #1 and #11 the RCMP Highway Patrol would take the lead in consultation with BC Ministry of Transportation and Infrastructure. It is recommended that this type of evacuation only be utilized during day-time hours.

Individuals who require assistance to evacuate will be directed to assembly points within the impacted community(ies).

Consideration should be made to utilize public facilities and parks as assembly points first, particularly during school hours, to limit the mix of the public with school children.

The City has an agreement with the Abbotsford School Division (No. 34), who will support evacuation efforts by providing buses to identified assembly points from which individuals will be and safely transported to temporary evacuation points or reception centres.

Figure 2 – Evacuation Flowchart for Population without Transportation



4.1.3 Reception Centres

Should an Evacuation Order be issued by the City, and upon instruction from the Emergency Operations Centre (EOC), the Abbotsford Emergency Support Services (ESS) volunteers will open a reception centre based on the ESS Response Activation Levels. Where possible, temporary accommodations for domestic animals (pets) will also be established.

Table 1: ESS Response Activation Levels

Level	Description
1	Minor evacuation; an incident involving one or two families. Services are provided at the incident site (e.g. house fire, water main rupture).
2	Limited evacuation; an incident involving three or more families. Services are delivered either on site or in a reception centre (e.g. apartment fire, explosion).
3	Limited evacuation; involves a larger number of evacuees and have an increase in complexity. The number of reception centres and/or group lodging facilities that are activated increase as needed (e.g. chemical spill requiring evacuation of a neighbourhood).
4	Extensive evacuation; involves a larger number of evacuees and has an increase in complexity. The number of reception centres and/or group lodging facilities that are activated increase as needed (e.g. major flooding, interface fire, earthquakes).

4.1.4 Notification Methods

The City has identified the following notification methods for use during an incident resulting in an Evacuation Order:

- Loudhailer notifications disseminated by the Police throughout the impacted community(ies); and
- Door knocking conducted by Abbotsford Police and supported by Abbotsford Fire Rescue Service and Central Fraser Valley Search and Rescue (CFVSAR);
- Local media (television, radio);
- Social media (Facebook, Twitter);

Message templates have been developed for use through the aforementioned notification methods and are included in [Appendix F – Evacuation Notification Templates](#).

4.1.5 Evacuating Indigenous Communities

It is important to employ culturally appropriate practices when evacuating an Indigenous Community to reduce the stress associated. Often Indigenous Communities are evacuated with little consideration to their cultural uniqueness and the negative consequences to the well-being of the community when displaced from their traditional territory. Taking into consideration and providing for the cultural wellness of Indigenous Communities during an evacuation is of vital importance to a successful evacuation.

Considerations to lessen the impact of an evacuation for an Indigenous community include, but not limited to:

- Staying in traditional territories whenever possible;
- Evacuating to nearby host Indigenous Communities first, if remaining on traditional territories not possible;
- Identify and establish a Community Liaison from both the host community and Indigenous community;
- Consider a “Welcoming Ceremony” between the host community and evacuated community;
- Keeping Families and Clans together;
- Providing culturally appropriate support which includes:
 - Health services (mental and physical);
 - Traditional medicines;
 - Translation services;
 - Traditional food and beverage services;
 - Supporting cultural and spiritual events during the evacuation period; and
 - Providing culturally trained support workers to assist evacuees.

4.1.6 Evacuating Livestock

While the considerations and strategies for evacuation of livestock is considered to be out of scope for this plan, the [EMBC Policy 2.01 \(Provincial Support for Livestock Relocation During an Emergency\)](#) provides information on support available for the emergency evacuation of livestock. The Ministry of Agriculture provides support to local authorities in the coordination of the emergency relocation and care of livestock via the PREOC. Moving livestock to safety is encouraged during the Evacuation Alert stage.

A toolkit to assist agricultural producers in the Fraser Valley with flood preparedness and resilience is currently under development (see: www.bcagclimateaction.ca/regional/rap/fraser-valley).

4.2 Response

If an incident occurs and there is concern for the lives and safety of individuals, the City EOC Director must decide if an evacuation is required. This decision will be based on information obtained through field personnel, the responsible party (if applicable), and subject matter experts.

In order to issue an Evacuation Order, the City must:

- activate their Emergency Operations Centre (if not yet established); and
- declare a State of Local Emergency (SOLE) ([Appendix E – Declaration of State of Local Emergency Template](#))

4.2.1 Evacuation Alert

Should the City respond to or be notified of an incident that is in close proximity to a community and has the potential to become life threatening, the City may issue an Evacuation Alert to give individuals advanced warning so that they can prepare themselves and their properties prior to an Order being issued. Evacuation Alerts do not require declaration of a State of Local Emergency.

The City has identified the following notification methods for use during an incident requiring an Evacuation Alert:

- Local media (television, radio);
- Social media (Facebook, Twitter);
- Door knocking

Dissemination of such a notification will be coordinated through the City's EOC through the Information Officer.

The evacuation of vulnerable populations during the Evacuation Alert stage should be considered. Moving vulnerable populations before an Evacuation Order is issued may reduce risks to the individual and help to reduce stress.

Note: Depending on the hazard, and the specifics of each individual event, an Evacuation Order may be immediately required, and no Evacuation Alert given.

4.2.2 Evacuation Order

If there is a life-threatening incident in the vicinity of an Abbotsford community the EOC Director may issue an Evacuation Order.

In order to do so, an evacuation strategy must first be developed. The strategy should identify:

- the evacuation area;
- the date and time the Evacuation Order is effective from;
- assembly point(s) for individuals who require assistance leaving the evacuation area(s);
- evacuation routes; and
- the reception centre location(s).

TEMPORARY ACCESS INTO EVACUATED AREAS

Granting temporary access into evacuated areas may help reduce the impacts of the emergency event and allow the community to begin the recover process earlier. The First Nation or Local Authority that has jurisdiction for the area under Evacuation Order is the primary authority for approving or denying requests for temporary access. It is important to make an informed decision that considers all applicable benefits, risks, and considerations for allowing such access. In an emergency event, supporting response agencies can help identify important considerations for approving or denying requests for temporary access.

EMBC's guide "Managing Access to Areas Under Evacuation Order for Local Authorities and First Nations" provides a recommended process, along with tools and templates, for managing the temporary access into areas under Evacuation Order.

4.2.3 Evacuation Response Checklist

TASK/ ACTION

ADVANCED PLANNING

- Determine the area(s) at risk and in need of (potential) evacuation:
 - Identify geographic boundaries
 - Identify the general population in areas of risk
 - Identify any special needs facilities/ populations in risk area(s)
 - Consider factors which would influence the evacuation, such as; weather forecast and time of day (daytime versus evening, school hours, etc.)

- Determine the estimated number of evacuees

- Determine evacuation routes for risk area(s)
 - Review and confirm pre-identified areas and routes
 - Order evacuation route signage

- Determine transportation requirements for population without transportation
 - Confirm Assembly points
 - Source supplemental means of transportation

- Confirm location of reception centres
 - Determine setup and operational requirements

- Prepare messaging for Evacuation Alert and Evacuation Orders.
(Appendix F – Evacuation Notification Templates)

EVACUATION ALERT (continued next page)

- Complete an Evacuation Alert Template
(Appendix F – Evacuation Notification Templates)

- Prepare and disseminate messaging regarding the Evacuation Alert to the public.
(see [4.1.4 Notification Methods](#))
 - Engage and work with the Joint Information Centre (JIC)

- Estimate the number of evacuees

- Notify and maintain situation awareness with evacuation support agencies.
 - Engage and work with the Liaison Officer

- Establish potential reception centre(s)

- Once the Alert is in place, consider evacuating vulnerable populations and recommending livestock relocation

TASK/ ACTION

- Evacuee registration hotline and/or online registration readied
- Notify neighbouring jurisdictions that may be impacted or can support the activities associated with an evacuation

EVACUATION ORDER

- Declare a State of Local Emergency
([Appendix E – Declaration of State of Local Emergency Template](#))
- Complete an Evacuation Order template
([Appendix F – Evacuation Notification Templates](#))
- Disseminate the Evacuation Order to the public
(see [4.1.4 Notification Methods](#))
- Conduct a systematic evacuation of all residents in the evacuation area
 - Implement security provisions
 - Close down traffic on affected routes
 - Install evacuation route signage
- Prepare and disseminate situation updates to the public, and supporting agencies
 - Work with the JIC and Liaison Officer
- Monitor the evacuation
- Re-assess the incident and risk frequently, confirming the need and scope of evacuation
- Engage with the evacuees

4.3 Rescind

When the hazardous conditions that necessitated the evacuation have ceased and the area has been declared safe, the Evacuation Order can be rescinded or downgraded to an Alert. If it's not safe for the entire Evacuation Order to be rescinded, an Evacuation Rescind can be issued for the entire Evacuation Order area with a new Evacuation Order and/or Alert issued immediately afterwards identifying the new geographic boundaries. Alternatively, an amendment to the existing Evacuation Order may be issued with the new boundaries clearly identified.

All Evacuation Orders require a formal rescind. Evacuation Alerts should be cancelled when conditions are no longer hazardous, and communications issued to update the public and inform emergency crews to stand down.

4.3.1 Early Re-Entry for Community Support Agencies

Allowing the early re-entry of community support agencies while the Evacuation Order remains in effect can help to prepare for a safe and orderly return of residents to the evacuated area. Early re-entry can allow agencies the ability to assess and restore services in a safe and efficient manner before evacuees return.

EMBC's guide [Managing Access to Areas Under Evacuation Order](#) provides further information on facilitating early re-entry.

4.3.2 Evacuation Rescind Checklist

TASK/ ACTION

PLANNING - PRIOR TO THE RETURN OF EVACUEES

- Re-assess the incident and risk frequently confirming the need and scope of evacuation

- Assess that significant health and safety hazards have been eliminated from the evacuated areas

- Determine requirements for, and coordination of, the return of evacuees to the areas, such as
 - Full re-entry or staged re-entry
 - Return of evacuees without transportation

- Prepare messaging for re-entry

- Determine re-entry routes
 - Review and confirm pre-identified areas and routes ([Appendices B & C](#))

- Notify evacuation supporting agencies and neighbouring jurisdictions that return of evacuees will begin

EVACUATION RESCIND: RETURN OF EVACUEES

- Complete an Evacuation Rescind template ([Appendix F – Evacuation Notification Templates](#))

- Disseminate Evacuation Rescind to the public and communicate process of re-entry (see [4.1.4 Notification Methods](#))

5. SHELTER-IN-PLACE

5.1 Considerations and Strategies

In addition to the community awareness and education efforts noted in [Section 2.3 Vulnerable Populations](#), the following instructions may be provided to the public regarding steps to efficiently and effectively shelter-in-place inclusive of:

- Residents within the specified area are to immediately take refuge (shelter) in their homes or places of business, undertaking the following activities immediately:
 - Close and seal all exterior doors and windows using tape and plastic wrap if available.
 - Gather in rooms that are the furthest away from the hazard, e.g. interior rooms.
 - Turn off all air conditioning units, furnaces, and exhaust systems.
 - Monitor environmental parameters of the building including temperatures and CO2 levels if able.
 - Limit movement.
- Individuals who are outdoors at the time of the Shelter-in-Place Order is issued are to proceed to the closest public building, or shelter-in-place facility(ies) established within the specified area(s).
- Individuals who are in transit may be instructed to shelter in their vehicles. This form of sheltering should be used as a last resort.
- Individuals within the specified area(s) are to obtain and maintain situational awareness through monitoring of the City of Abbotsford social media channels and local media; and
- Listen and be aware of unusual sounds, hazards, and smells.

Consideration should be made to utilize public facilities and parks as assembly points first during school hours, to limit the mix of the public with school children.

Should additional facilities be required the following should be considered:

- Are there rooms within the identified facility that can be easily sealed?
 - Are materials onsite to assist with taping up the windows and doors?
- Will there be trained City personnel onsite to support members of the public at the identified facility(ies)?
 - City personnel onsite would maintain regular contact with the EOC regarding the coordination of required resources such as food, water, and medication.

5.2 Response

If an incident occurs and there is concern for the lives and safety of individuals, the City EOC Director must decide if there is a need to Shelter-in-Place. This decision will be based on information obtained through field personnel, the responsible party (if applicable), and subject matter experts.

In order to issue a Shelter-in-Place Order, the City must ensure that they have:

- activated their Emergency Operations Centre (if not yet established); and
- declare a State of Local Emergency (SOLE) ([Appendix E – Declaration of State of Local Emergency Template](#))

5.2.1 Shelter-in-Place Order

If there is a life-threatening incident in the vicinity of an Abbotsford community the EOC Director may issue a Shelter-in-Place Order. In order to do so, a Shelter-in-Place strategy must first be developed. The strategy should identify:

- the impacted area;
- the date and time the Shelter-in-Place Order is effective from;
- the location of established Shelter-in-Place facilities for individuals without access to a home or business to take refuge (shelter) in; and
- protocols for sheltering in vehicles.

NOTIFICATION METHODS

The City has identified the following notification methods for use during an incident resulting in a Shelter-in-Place Order:

- Local media (television, radio);
- Social media (Facebook, Twitter); and
- Trans Mountain Callout System (for communities within the vicinity of Trans Mountain Sumas Terminal).

Message templates have been developed for use through the aforementioned notification methods and are included in [Appendix G – Shelter-in-Place Notification Templates](#).

5.2.2 Shelter-in-Place Response Checklist

TASK/ ACTION

ADVANCED PLANNING

- If the Shelter-in-Place is in response to a hazardous material release, ensure an Air Monitoring Plan has been activated
- Determine the area(s) at risk and in need of (potential) evacuation:
 - Identify geographic boundaries
 - Identify the general population in areas of risk
 - Identify any special needs facilities/ populations in risk area(s)
 - Consider factors with would influence the evacuation, such as; weather forecast and time of day (daytime versus evening, school hours, etc.)
- Estimate the number of sheltered

SHELTER-IN-PLACE ORDER

- Prepare and disseminate messaging regarding the shelter in place (see [5.2.1 Notification Methods](#))
 - Engage and work with the JIC
- Prepare and disseminate situation updates to the public, and supporting agencies
 - Work with the JIC and Liaison Officer
- Monitor the situation
- Re-assess the incident and risk frequently, confirming the need and scope of shelter in place measures:
 - Rescind shelter in place
 - Proceed to evacuation; see [4.0 Evacuation](#)
- Notify neighbouring jurisdictions that may be impacted or can support the activities associated with the shelter in place consequences

5.3 Rescind

To support the impacted community(ies) after an incident, there are a number of considerations and activities that will need to be coordinated inclusive of:

- an environmental assessment to determine any secondary hazards;
- a Shelter-in-Place Rescind; and
- public information sessions to provide impacted individuals with details regarding:
 - personal safety such as personal protective equipment; and
 - mental and emotional support programs.

5.3.1 Shelter-in-Place Rescind Checklist

Once the life-threatening incident has been contained and an environmental assessment has been completed, the EOC Director will issue a Shelter-in-Place Rescind. Following a Shelter-in-Place Rescind, individuals may resume day-to-day activities within the impacted community(ies).

Notification of the Shelter-in-Place Rescind should be provided via the same methods used to disseminate the Shelter-in-Place Order, inclusive of:

- Local media (television, radio);
- Social media (Facebook, Twitter); and
- Trans Mountain Callout System (for communities within the vicinity of Trans Mountain Sumas Terminal).

Message templates have been developed for use through the aforementioned notification methods and are included in [Appendix G – Shelter-in-Place Notification Templates](#).

TASK/ ACTION

SHELTER-IN-PLACE RESCIND

- Re-assess the incident and risk frequently, confirming the need and scope of shelter in place measures:
 - Rescind shelter in place
 - Proceed to evacuation; see [4.0 Evacuation](#)
- Disseminate message of shelter in place rescind to the public
- Notify supporting agencies and neighbouring jurisdictions that shelter in place measures have been rescinded

APPENDIX A – GLOSSARY AND ACRONYMS

Glossary

Word or Phrase	Definition
Assembly Point	A designated place where individuals have been instructed to gather after evacuating a specified area in the event of an emergency, or as a precautionary measure for the purposes of protecting their lives and/or ensuring their safety.
Emergency Support Services (ESS)	Services, such as food, lodging, clothing, emotional support, information about the crisis, and family reunification, that are coordinated by the City's Emergency Support Services (ESS) program.
Evacuation/ Shelter-in-Place Areas	Specified areas of a building or community that have been impacted by an incident and require members of the public to either evacuate or shelter-in-place based on the hazard type.
Responsible Party	The owner and/or operator of an industrial facility, pipeline, transportation system, or other business endeavor whose operation has caused an incident that has impacted the surrounding community, whether governed by legislation or not.
Unified Command	An authority structure in which the role of incident commander is shared by two or more individuals, each already having authority in a different responding agency.

Acronyms

Abbreviation	Definition
BCEMS	British Columbia Emergency Management System
EMBC	Emergency Management British Columbia
EOC	Emergency Operations Centre
ERAP	Emergency Response Assistance Plan
ESS	Emergency Support Services
ICP	Incident Command Post
JIC	Joint Information Centre
PREOC	Provincial Regional Emergency Operations Centre
SAR	Search and Rescue
SOLE	State of Local Emergency

APPENDIX B – FLOOD EVACUATION ROUTE PLANS

Introduction

Within the City of Abbotsford there are three floodplains (Glen Valley, Matsqui Prairie, and Sumas Prairie) (see map on page 24) and an extensive system of dykes and drainage infrastructure to protect communities and infrastructure from seasonal floods on the Fraser, Vedder, and Sumas River systems. In the spring and early summer, there is the potential for flooding on the Fraser and Vedder Rivers following rapid snow melt or a combination of snow melt and intense rainfall (i.e. a “freshet” event). In the fall and winter months, the Sumas River is prone to flooding as it can receive large volumes of meltwater following rain on snow events in the Cascade mountains.

The two largest floods on record for the City of Abbotsford (the floods of 1894 and 1948) were due to a freshet event on the Fraser River. The Fraser River flood of 1894 resulted in the highest water levels in history, but it was the later flood of 1948 that led to the greatest consequences. During the flood of 1948 ten people were killed, thousands of farm animals lost, major transportation routes were disrupted, and many businesses were forced to close¹.

With the population of Abbotsford now nearing 200,000 people and intensive agricultural production and related activities within the municipality generating over \$2 billion in economic value annually², a flood event on the scale of the 1894 flood poses a catastrophic risk to the city. Abbotsford is host to a large share of the province’s food production, processing, and storage facilities and the impacts to food supply and associated infrastructure following a flood would be felt by the entire province. Additionally, several key transportation links, including two highways and three railways, and a variety of utility infrastructure that serves the Lower Mainland pass through the municipality. This major regional and local infrastructure is also vulnerable to damage and disruption in the event of a flood.

Aside from the economic impacts arising from agricultural losses and the disruption of critical infrastructure, a large flood event presents a threat to life and safety. With the potential for sudden, catastrophic dike failure and limited emergency egress routes in some locations, **preparation and advanced planning are key** to reducing costs and suffering incurred. There are opportunities for early detection and action and many of these are captured in the City of Abbotsford’s *Flood Response Plan* (including monitoring, preparedness, warning, and response activities). This *Flood Evacuation Route Plan Appendix* complements the material captured in the *Flood Response Plan*. Within this appendix, evacuation considerations and pre-identified evacuation routes are documented for each of the three floodplains.

With climate change expected to increase both the magnitude and occurrence of floods in the region³ there is a pressing need for flood mitigation and preparedness efforts to protect people, livelihoods, infrastructure, and the environment. The following floodplain evacuation plans have been developed to support a successful evacuation operation during a flood emergency and ultimately increase community resilience.

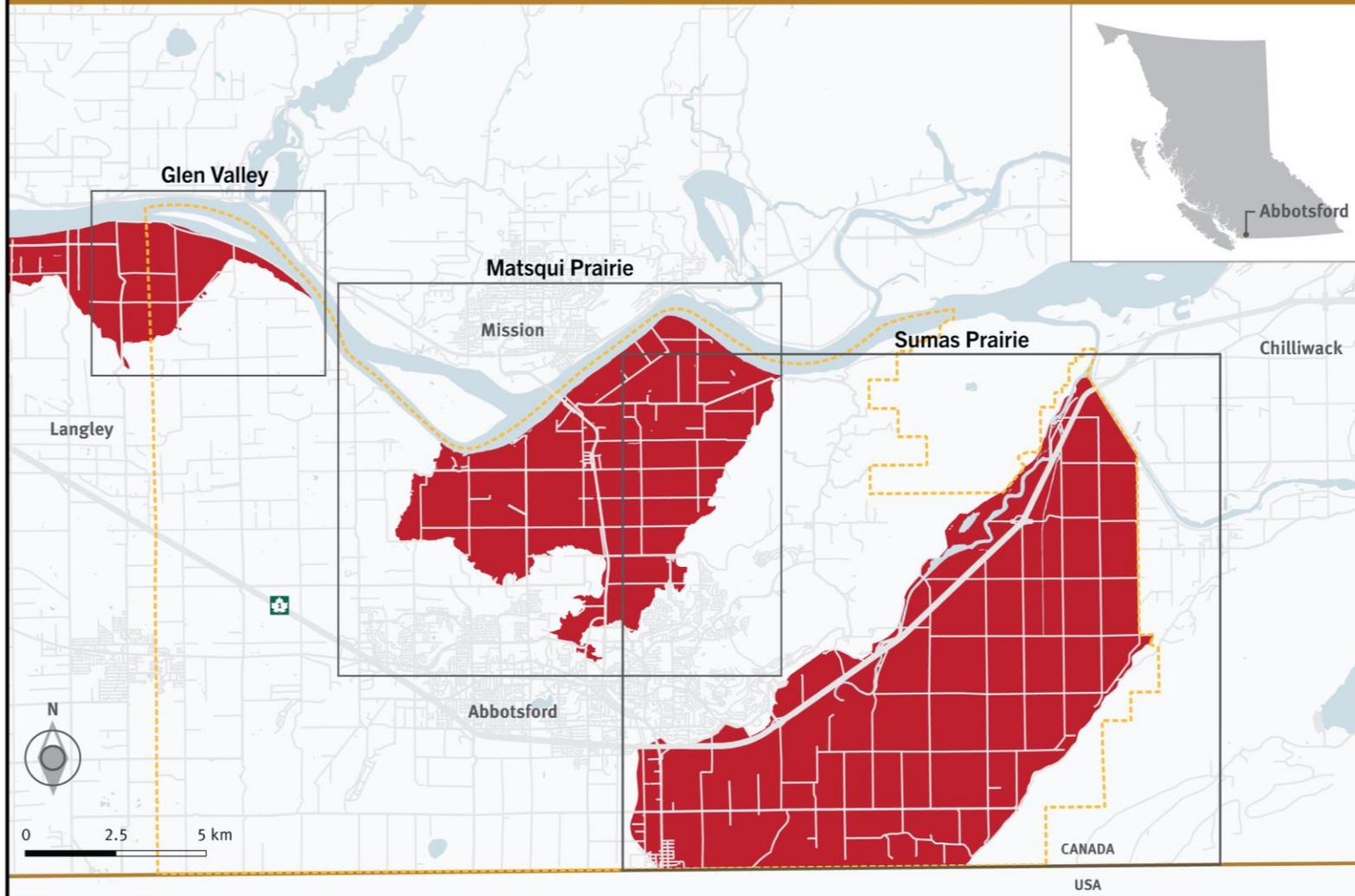
¹ ENG 15-2015 Fraser River Bank Erosion – Disaster Costing

² Regional Snapshot Series: Agriculture Agricultural Economy in the Fraser Valley Regional District, 2017

³ Freshet Flooding and Fraser Valley Agriculture: Evaluating Impacts and Options for Resilience Study, 2016

Major Floodplains of Abbotsford

Glen Valley, Matsqui Prairie, and Sumas Prairie Floodplains.



Map created under the TsunamiClear Visual Standards.

Community: Glen Valley

General Area Description

- Glen Valley is a small, rural community in northwest Abbotsford adjacent to the Fraser River.
- Lying below the escarpment next to the river, Glen Valley is flat and boggy and is home to a variety of dairy, blueberry, and cranberry farms.
- The community is vulnerable to flooding from the Fraser River due to the low elevations and a lack of dikes.
- The CN railway that runs adjacent to River Road does **not** function as a dike.
- Glen Valley is likely to be the first area in Abbotsford impacted by flooding related to Fraser River spring freshet.

Flooding History

- May 2018 – Evacuation alert issued for Glen Valley residents in the unprotected area north of River Road between the CN railway and the river due to a rise in river levels from the freshet.
- June 2012 – Approximately 150 Glen Valley residents put on evacuation alert. Evacuation order issued for 28 homes (approximately 67 residents).
- May & June 1948 – Widescale, catastrophic Fraser River flood event caused by snowmelt from an above normal snowpack combined with rainfall. Glen Valley was inundated by flood waters.

Vulnerable Populations/Areas of Concern

- The area below the escarpment by the river is the most vulnerable.
- Properties along River Road are most vulnerable due to their low elevation and proximity to the Fraser River.
- The intersection between Lefevre Rd and River Road has experienced flooding previously.
- There is a makeshift campground with long-term residents at the eastern end of River Road.

Critical Infrastructure

- **Transportation:** CN railway runs adjacent to the Fraser River.
- **Water:** Pump house located just west of Abbotsford/Langley border, north of the CN railway
- **Food:** Dairy, poultry, and berry farms (see [4.1.6 Evacuating Livestock](#))

Potential Assembly Points

- Jubilee Community Hall - 7989 Bradner Rd. Abbotsford BC V4X 2B6. Phone: 604-856-8494

Potential Reception Centres

- Bradner Hall - 5305 Bradner Road, Abbotsford, BC V4X 2P1. Phone: 604-856-8441
- Bradner Elementary - 5291 Bradner Road Abbotsford, BC V4X 2P5. Phone: 604-856-3304

Possible Evacuation Routes

- Lefevre Road is the main egress route for Glen Valley residents east of the boundary between the City of Abbotsford and Township of Langley.
- Primary evacuation route: Take Lefevre Road to Graham Crescent, which meets up with McTavish Road.
- Other evacuation route: Take River Road to Bradner Road, then a right onto Dike Road and a left onto Lefevre Road.
- Residents familiar with the area may evacuate by ATV, farm vehicle, etc. using cross-country, private (farm) trails.

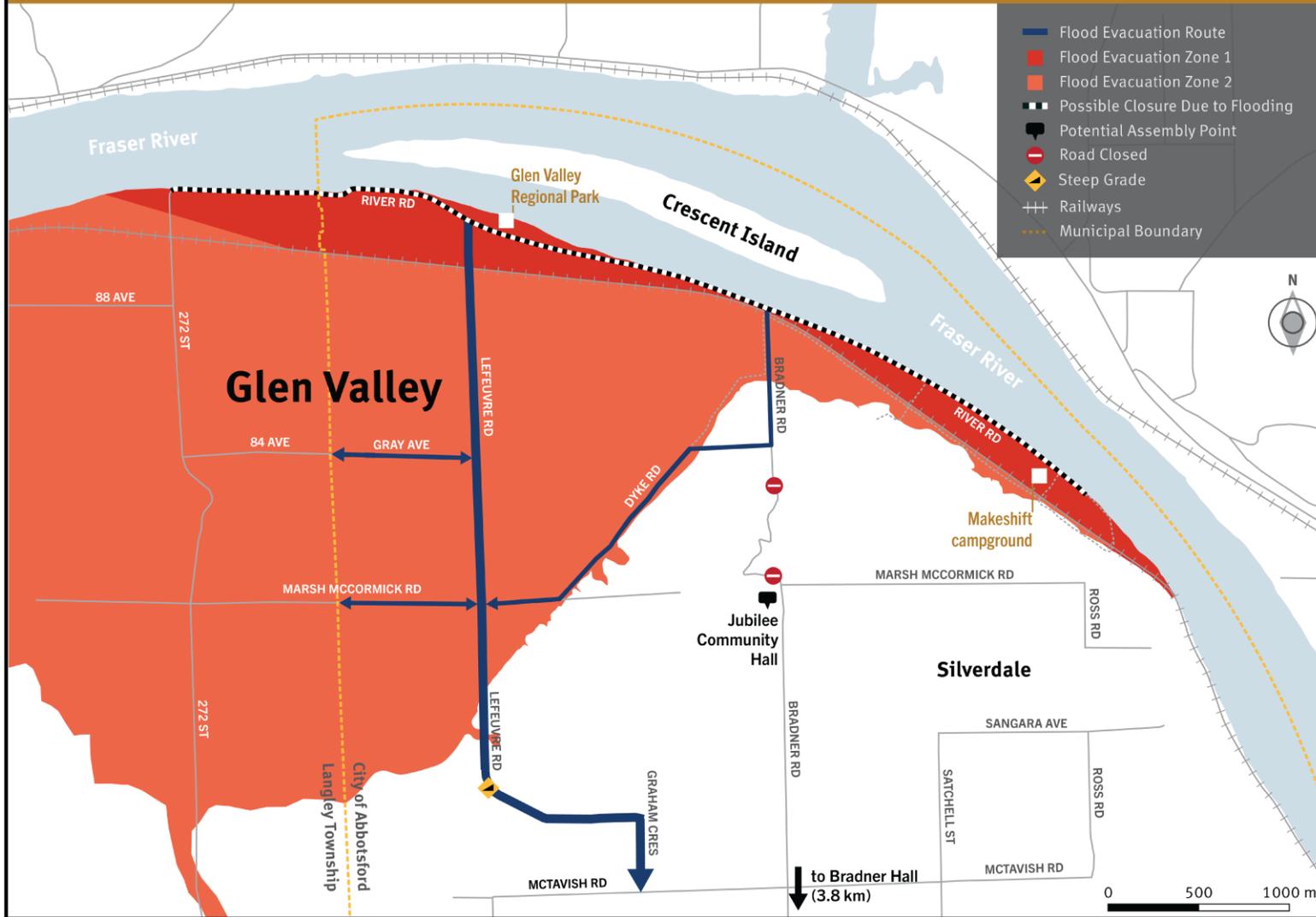
See **flood evacuation route map** for Glen Valley on page 27

Evacuation Route Considerations

- Steep decline around a sharp corner in the area of Lefevre Road and Graham Crescent.
- Traffic volumes may be increased by Township of Langley residents evacuating using Abbotsford roads.
- Abbotsford residents evacuating via Township of Langley roads will still need to check-in with the Abbotsford reception centre
- A coordinated approach to both public communications and evacuation logistics of Glen Valley should be made between the City of Abbotsford and the Township of Langley

Flood evacuation route map for Glen Valley, Abbotsford

Evacuation routes, landmarks, and flood areas.



Map created under the TsunamiClear Visual Standards.

Community: Matsqui Prairie

General Area Description

- Matsqui Prairie refers to the floodplain that surrounds the historic village of Matsqui situated within the City of Abbotsford.
- The floodplain stretches from the Fraser River in the north down into the neighbourhood of Babich in the south (by the McCallum Road intersection with Highway 11), where it is bordered by the higher grounds of Clearbrook and downtown Abbotsford. The higher elevations of Sumas Mountain and the Mount Lehman-Bradner region border the floodplain to the east and west, respectively.
- This low-lying area used to flood regularly which created prime agricultural land due to the rich sediments deposited by the Fraser River.
- The area is now protected against flooding from the Fraser River by dikes that run from the escarpment on the west to Sumas Mountain to the east.
- The section of the river bank between the northerly tip of Matsqui Prairie and Sumas Mountain (the northeast side of the head of Matsqui Prairie) is prone to erosion and several erosion arcs have formed along this stretch. While there have been efforts to study the erosion arcs and repair/reinforce the dike there are still concerns that one of the erosion arcs will enlarge and cause catastrophic failure of the Matsqui dike.
- A catastrophic dike failure is likely to occur without warning, whereas overtopping of the dike due to a freshet event on the Fraser River should have some advance notice.
- In addition to the risk of flooding following the overtopping or failure of dikes protecting the prairie, there is also the risk of localized flooding surrounding Clayburn Creek following a heavy rainfall event. The flooding has historically impacted Clayburn Village, Clayburn Road, and the surrounding lowland agricultural area.
- Should flooding due to a Fraser River freshet event occur at the same time as flooding along Clayburn Creek, evacuation routes could be impacted by the possible closure of Clayburn Road.

Flooding History

- May 1894 – Dyke collapsed and entire Matsqui Prairie was flooded.
- May & June 1948 – Widescale, catastrophic Fraser River flood event caused by snowmelt from an above normal snowpack combined with rainfall. Matsqui dikes failed and eight feet of water inundated the Matsqui Prairie. An estimated 355 homes in Matsqui were damaged. It took six weeks before the water from the Fraser fully receded from the Prairie.
- June 2012 – Evacuation alerts issued for three residents on Walters Road between the Matsqui Dike and the Fraser River due to a rise in river levels from the freshet.
- Clayburn Creek has a long history of flooding. The 2012 Clayburn Creek Integrated Stormwater Management Plan contains a record of flood events near Wright Street reported by Clayburn Village residents which dates back to 1935. More recently, in

November 2018, the City of Abbotsford closed Clayburn Road between Bell Road and Wright Street due to high water levels.

- Flood flows outside the creek channel have occurred annually downstream of Wright Street for several years and now also occur at Wright Street on an annual basis.

Vulnerable Populations/Areas of Concern

The eastern flank of Matsqui Prairie from Clayburn Road north to the river is an area of concern. Evacuation routes heading east are limited to Sumas Mountain Road, which is unsuitable for all vehicle types as it is a narrow, steep winding gravel road, and Clayburn Road which is liable to closure due to flooding.

Concentrated populations on the Matsqui Prairie are located at:

Matsqui Village

- Elementary school
- Private Punjabi K-12
- Preschool
- Small businesses
- Single family homes

Clayburn Village

(at Clayburn Road & Wright Street)

- Small businesses
- Single family homes

Matsqui First Nation

Two reserves belonging to the Matsqui First nation are located within the municipal boundaries of modern-day Abbotsford:

- Sahhacum (IR#1) – located either side of Highway 11, between Abbotsford’s industrial area to the south and Matsqui Village to the north.
- Matsqui Main (IR#2) – located between the bank of the Fraser River to Harris Road
 - Single family homes
 - Band office with Learning Centre

Critical Infrastructure

- **Transportation:** Highway 11, Railways (Canadian Pacific Railway, CN Railway, Southern Railway BC)
- **Water:** Water transmission main, JAMES Wastewater Treatment Plant, ditches and drainage pump stations: McLellan, Matsqui, Delong and Vanderloo (the pump stations serve to evacuate water from the prairie).
- **Food:** Matsqui Prairie contains almost 5,000 hectares of high value, productive agricultural land and associated infrastructure (e.g. dairy and poultry processing, greenhouses, food storage facilities)

- **Information & Communication Technology:** National Defense Communication centre
- **Energy and utilities:** BC Hydro towers and sub-stations, gas mains
- **Manufacturing:** Industrial welding, bio solid fuel, and commercial composting facility.
- **Government:** Matsqui First Nations band office

Potential Assembly Points

- Matsqui Elementary – 33661 Elizabeth Avenue, Abbotsford, BC, V4X 1T4. Phone: 604-826-8181

Potential Reception Centres

- Agrec building – at Abbotsford Exhibition Park – 32470 Haida Drive, Abbotsford, BC, V2T 5A6
- Abbotsford Recreation Centre – 2499 McMillan Rd, Abbotsford, BC V2S 7S5. Phone: 604-853-4221

Possible Evacuation Routes

See [flood evacuation route map](#) for Matsqui Prairie on page 31

- Primary evacuation routes:
 - Highway 11 – Northbound exit into Mission
 - Highway 11 – Southbound to Sumas Way and onto Highway 1
 - Bell Road down to Clayburn Road, left on Clayburn Road, and then either a right onto Wright Street or continue up onto Old Clayburn Road or Straiton Road (tight and winding road)
 - West on Harris Road to reach Bradner-Mt Lehman uplands
 - West on Downes Road with the option to head south on Clearbrook
- Other evacuation route: Sumas Mtn Road is a secondary route for evacuating the eastern flank of the prairie

Evacuation Route Considerations

- Evacuating north into Mission via Highway 11 may not be an option if the low-lying area of Mission has flooded.
- Clayburn Road may not be available as an evacuation route should Clayburn Creek flood following high rains.
- Sumas Mtn Road is a narrow, steep, winding road and the first 2km is gravel surface.

Other Considerations

The City of Abbotsford Food Waste Processing Facility (Net Zero Waste) which composts all of the city's organic waste is located within the floodplain. There is the potential for contamination in the event of a flood.

Community: Sumas Prairie

General Area Description

- Sumas Prairie is a reclaimed lake bed south of Highway 1 between Abbotsford city centre and Chilliwack.
- In the early 1920s, Sumas Lake, a large freshwater lake situated between Sumas and Vedder Mountains, was drained to address flooding problems from the lake and satisfy increased demand for fertile farmland.
- To drain the lake a large-scale system of dams, dykes, canals, and pumphouses were built. The Vedder River, which had previously flowed into Sumas Lake, was re-routed into the newly dredged Vedder Canal and the lake was drained through the Sumas Lake Canal into the Fraser River.
- Today the Prairie extends from the Vedder Canal southwestwards into northern Whatcom County, Washington and is home to productive agricultural land as well as residential and commercial zones.
- The Barrowtown Pump Station prevents the lake from reforming in the Prairie by continually pumping water from the Sumas Canal, which collects water from the surrounding network of ditches, canals, and culverts, up and into the Sumas River which then empties into the Fraser River.
- The Prairie is threatened by flooding from the Vedder Canal in the northeast and from the Nooksack River in Washington state.
- **Flood Scenario – Vedder Canal:**
 - The dikes lining the Vedder Canal have been determined to be seismically unstable and, while the dikes have received upgrades, the current elevations are not thought to be high enough to withstand a 1-in-200-year flood. The Vedder Canal dikes protect the Sumas Prairie from the threat of flooding posed by spring freshet from the Fraser River and flood flows from the Chilliwack/Vedder drainage basin. There is potential for overtopping or a catastrophic breach of the dike which would flood the Prairie.
 - A large flood could result in waters reaching the west side of Sumas Way.
- **Flood Scenario – Nooksack River:**
 - The Nooksack River, which lies just south of the border in Washington state, carries water from the slopes of Mount Baker west towards Lynden, Washington before flowing south and emptying into the ocean at Bellingham Bay. The river receives high amounts of rainfall as well as snowmelt from the deep snowpack in the Cascade mountains. Between November and February, the Nooksack is particularly prone to flooding due to rain on snow events which generate large volumes of meltwater.
 - Although the Nooksack River itself never crosses into Canada, when it overtops its banks the floodwaters flow north and follow the Sumas River into Abbotsford. A Nooksack flood event would primarily impact the western portions of Sumas

Prairie, as seen in 1990 when floodwaters from the Nooksack swamped the Whatcom Road and Highway 1 interchange and West Sumas Prairie (see Flooding History Section below).

- There are concerns that a large-scale flood event could lead to the Nooksack River changing its course entirely and flowing into the channel of the much-smaller Sumas River with potentially catastrophic consequences to Sumas, Washington and the West Sumas Prairie in BC.
- The communities of Everson and Sumas, Washington will flood before the waters reach Abbotsford. A sensor was recently installed in a ditch just outside of Everson to monitor the water levels from October to March. There is a need for diligent monitoring of the Nooksack water levels and advanced planning as early detection and action are key to protecting life and safety in the Sumas Prairie.

Flooding History

Vedder Canal

June 1948 – Widescale, catastrophic Fraser River flood event caused by snowmelt from an above normal snowpack combined with rainfall. Approximately 4,000 Sumas Prairie residents were evacuated on June 11 after the dikes along the Vedder Canal were threatened by rising water levels.

Nooksack River

November 1990 – The Nooksack River breached a dyke in Everson, Washington and flowed north into the Sumas River basin. Major flooding occurred in the West Sumas Prairie in Abbotsford and in the Washington State cities of Everson and Sumas. The flood waters came up over Whatcom Road and led to the closure of the Trans-Canada Highway for 26 hours. Several other roads were closed. In West Sumas Prairie many roads were closed and buildings were flooded. The interceptor dike at Arnold Slough that bisects the prairie prevented floodwaters from reaching the old Sumas Lake bed.

Vulnerable Populations/Areas of Concern

Schools

- Upper Sumas Elementary School – 36321 Vye Rd, Abbotsford, BC V3G 1Z5. Phone: 604-852-3900
- Barrowtown Elementary – 5137 Tolmie Road, Abbotsford, BC V3G 2V4. Phone: 604-823-6722

Sumas First Nation

The Sumas First Nation, one of 5 bands in the 11-member Stó:lō Nation, have a 245.30 hectare reserve at the foot of Sumas Mountain with an on-reserve population of 141 people.

- Administration Office – 2788a Sumas Mountain Rd, Abbotsford, BC V3G 2J2. Phone: 604-852-4041
- Busy Bear Preschool – 3092 Sumas Mtn Road, Abbotsford, BC V3G 2G5. Phone: 604-852-1260

Whatcom Rd & Highway 1 interchange

- Quality Hotel & Conference Centre – 36035 N Parallel Rd, Abbotsford, BC V3G 2C6.
Phone: 604-870-1050
- Abbotsford Firehall 2 (use back gate for access in the event of a flood)
- Churches off Delair Road

Sumas Way Interchange

- Large commercial retailers including Walmart and Costco

Riverside Road

- Industrial area with manufacturing and fabrication shops

Community of Huntington

- Sumas-Huntingdon Border Crossing
- Small businesses
- Single family homes
- Daycare

Critical Infrastructure

- **Transportation:** Highway 1 (Trans-Canada), Highway 11, Railways, Bridges, Sumas-Huntingdon Border Crossing
- **Water:** Barrowtown Pump Station – Failure of pump could lead to filling of drainage system. Although the pump has no backup power system, the pump station is serviced by two electrical power feeds, one from the Chilliwack and one from Abbotsford.
- **Food:** Sumas Prairie contains almost 33,000 acres of high value, productive agricultural land and associated infrastructure (e.g. dairy and poultry processing, greenhouses, food storage facilities)
- **Information and Communication Technology:**
- **Safety:** Abbotsford Firehall 2
- **Energy and Utilities:** BC Hydro towers, transmission lines, and sub-stations; Spectra and Fortis natural gas mains and transfer stations; Trans Mountain liquids pipeline, pump station, and terminal (with storage tanks).
- **Government:** Sumas First Nation administration office, Canada Border Services Agency's Abbotsford-Huntingdon office

Evacuation details for Vedder Canal Flood Scenario

Potential Assembly Points

- Cole Road rest stop (Highway #1 and Exit 99)

See **flood evacuation route map** for Vedder Canal Flood Scenario on page 36

Potential Reception Centres

- Agrec building – at Abbotsford Exhibition Park – 32470 Haida Drive, Abbotsford, BC, V2T 5A6
- Abbotsford Recreation Centre – 2499 McMillan Rd, Abbotsford, BC V2S 7S5. Phone: 604-853-4221

Possible Evacuation Routes

- Primary evacuation routes:
 - Those north of No. 3 Rd should take No. 3 Road west to Highway 1 and then head southwest on Highway 1
 - Anyone south of No. 3 Rd should head southwest until they reach Whatcom Road and then take Whatcom Road north to Old Yale Rd.
- Other evacuation route:
 - Atkinson Road in a private road with a locked gate but could request access for use in an emergency to get people up onto higher elevations.
 - Those on Sumas First Nation could go up Sumas Mountain Road.

Evacuation Route Considerations

- Challenge posed by Highway 1 dissecting the region. There are only two interchanges (at No. 3 Rd and at Whatcom Rd) that allow motorists to cross over the highway and head north.
- The three bridges leading into Chilliwack (Highway 1, Keith Wilson, and Vedder bridges) are weak and there is the possibility of collapse/washout in the event of a flood. These bridges will likely be unsuitable for use by trucks in a flood scenario.
- Routes up onto the higher elevations of Vedder Mountain lead back into the floodplain.
- There will likely be congestion in the northeast area of the Prairie with people evacuating into the Sumas Prairie from Chilliwack.

Evacuation details for Nooksack River Flooding Scenario

Potential Assembly Points

- Intersection of 4th Ave & HWY 11 in Huntington. This location will likely be impacted fairly quickly but could use with advance notice.

See **flood evacuation route map** for Nooksack River Flood Scenario on page 38

Potential Reception Centres

- Primary reception centre should be set up in Abbotsford with a secondary reception centre in Chilliwack. Options in Abbotsford include:
 - Agrec building – at Abbotsford Exhibition Park – 32470 Haida Drive, Abbotsford, BC, V2T 5A6
 - Abbotsford Recreation Centre – 2499 McMillan Rd, Abbotsford, BC V2S 7S5. Phone: 604-853-4221

Possible Evacuation Routes

- Primary evacuation routes:
 - People west of Whatcom Road should head north or west: take either Sumas Way or Whatcom Road North or take Riverside Road north and turn left onto either Vye Road or King Road to head west.
 - Those between Whatcom Road and the dike should head northeast to get to the other side of the dike and then continue into Chilliwack.
 - Those north of the dike should head northeast into Chilliwack. Route options:
 - Take No. 3 Rd west to Highway 1 and then head northeast on Highway 1 crossing the bridge into Chilliwack, or
 - Take the Keith Wilson bridge northeast into Chilliwack, or
 - Take Yarrow Central Road east to the Vedder bridge
- Other evacuation route:
 - Atkinson Road in a private road with a locked gate but could request access for use in an emergency to get people up onto higher elevations.
 - Those on Sumas First Nation could go up Sumas Mountain Road.

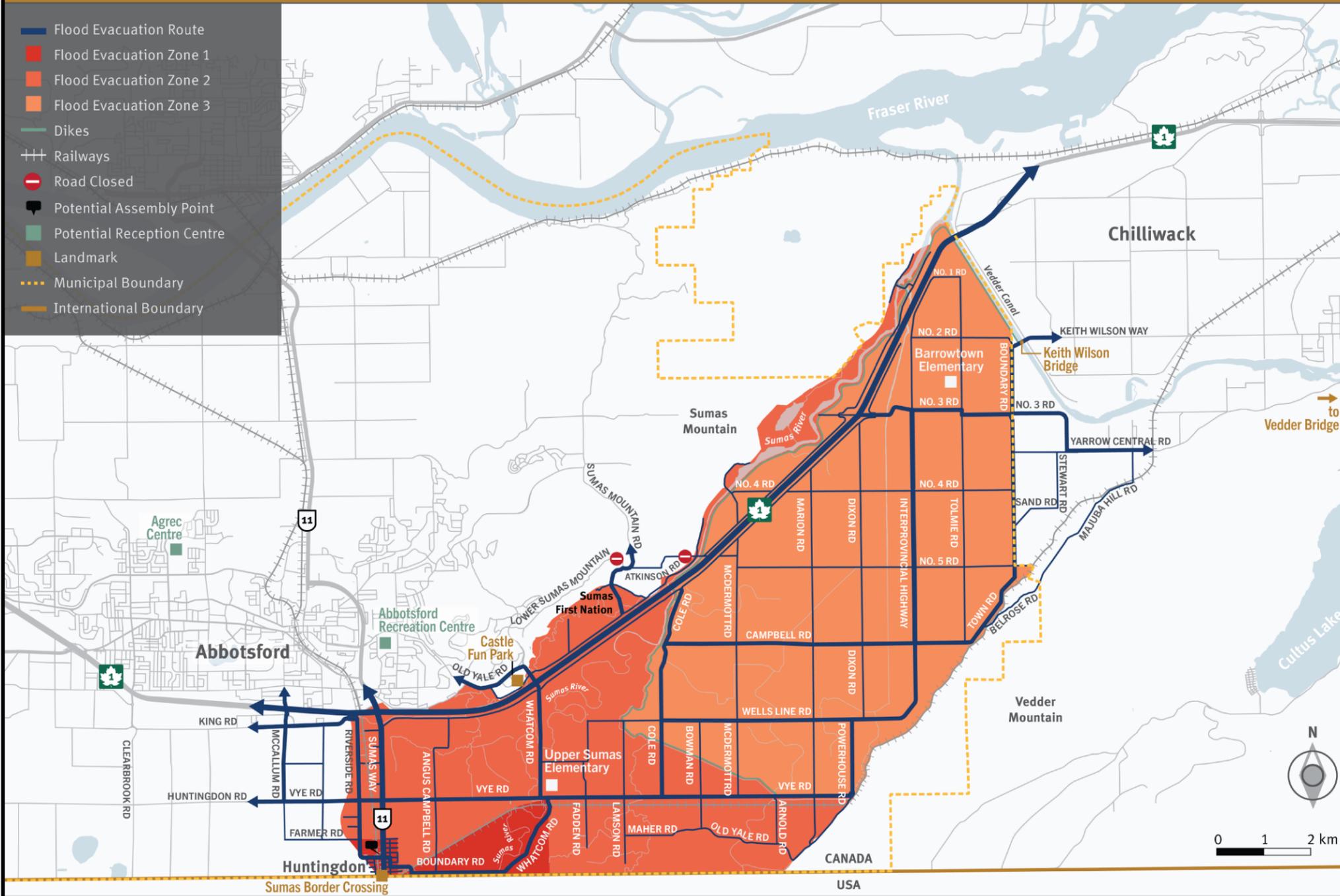
Evacuation Route Considerations

- Evacuating to the south is not an option with limited facilities to cross into the US and the presence of the Nooksack's floodplain.
- There will likely be additional evacuees coming from Washington State up into Huntington.
- The Nooksack River flooding should be contained in the western portion of the Sumas Prairie by the dike, so the priority is to get people onto the northeast side of the dike.

Could direct evacuees into Chilliwack, but Chilliwack sits at a lower elevation than Abbotsford and there are more support resources for evacuees to the west of the floodplain.

Flood evacuation route map for Sumas Prairie (Nooksack River Flood Scenario)

Evacuation routes, landmarks, and flood areas.



Map created under the TsunamiClear Visual Standards.

APPENDIX C – SUMAS MOUNTAIN EVACUATION PLAN

General Description

This evacuation plan addresses the Sumas Mountain communities of Auguston Development; Dawson Road Community; and Buckingham Community.

Shelter Facilities

In the event of a Shelter-in-Place Order being issued, the City has determined a number of facilities in the Sumas Mountain area for individuals to take refuge (shelter). The facilities which may be utilized include:

- Straiton Community Hall
- Auguston Traditional School
- Barrowtown Elementary School
- Upper Sumas Elementary School

Potential Assembly Points

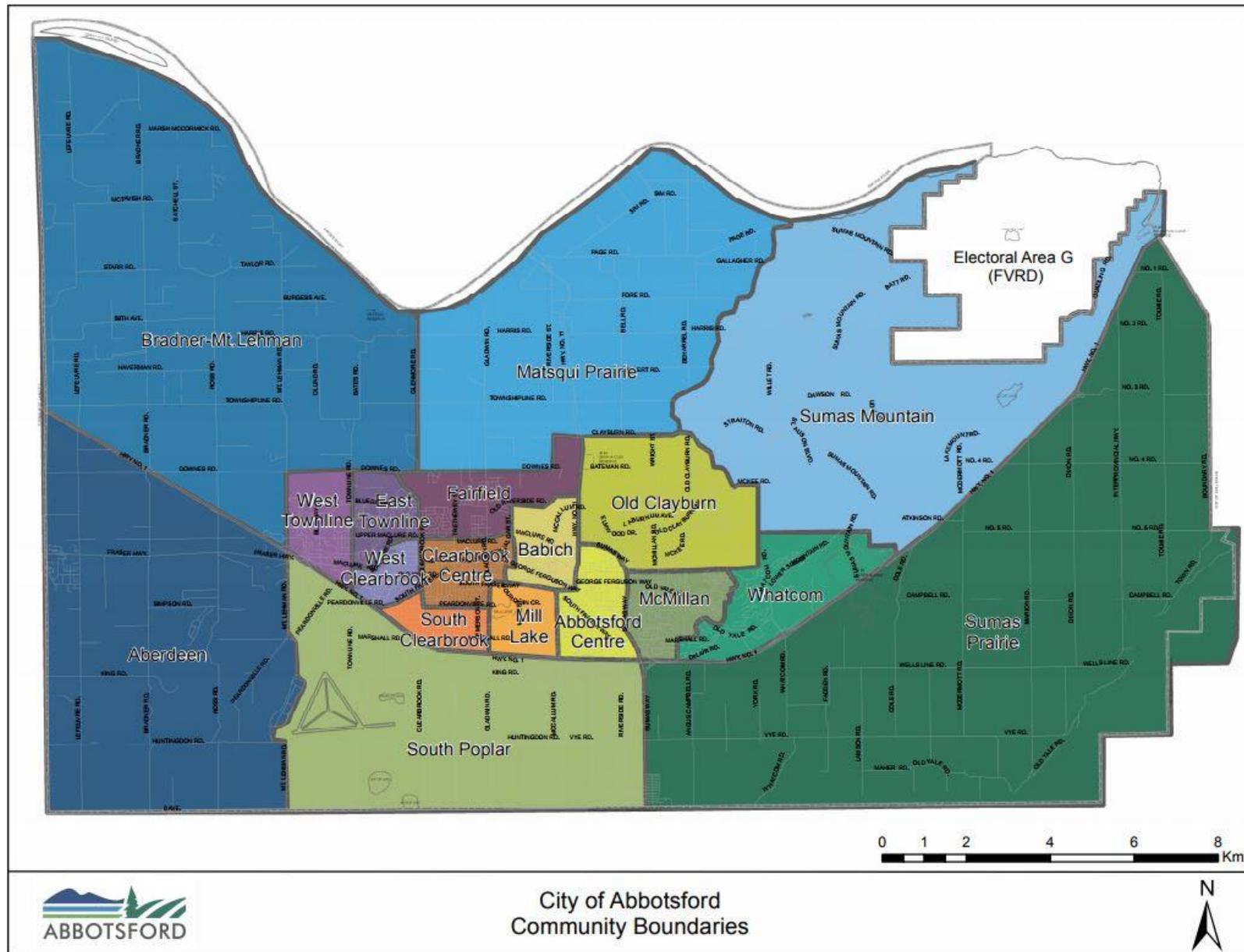
Initial assembly points to be utilized during an evacuation of the Sumas Mountain area may include:

- Auguston Strip Mall
- Shadbolt Park
- Straiton Hall
- Auguston Traditional School
- Barrowtown Elementary School
- Upper Sumas Elementary

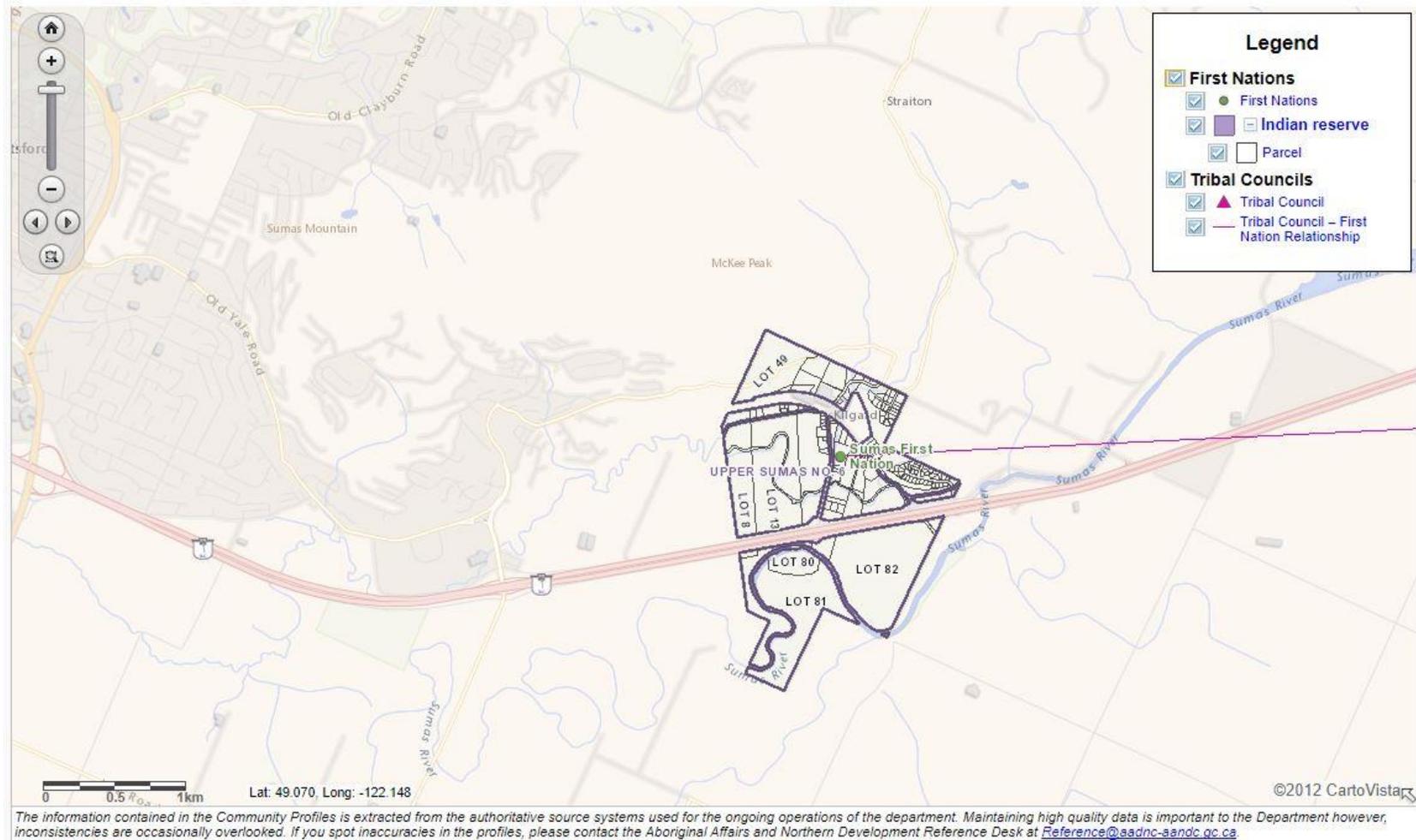
Potential Reception Centres

Should an incident impact the communities of Sumas Mountain area, the pre-identified reception centre likely to be selected would be the Abbotsford Recreation Centre located at 2499 McMillan Road.

Community Boundaries Map (showing location of Sumas Mountain)



Sumas First Nation Reserve Boundaries

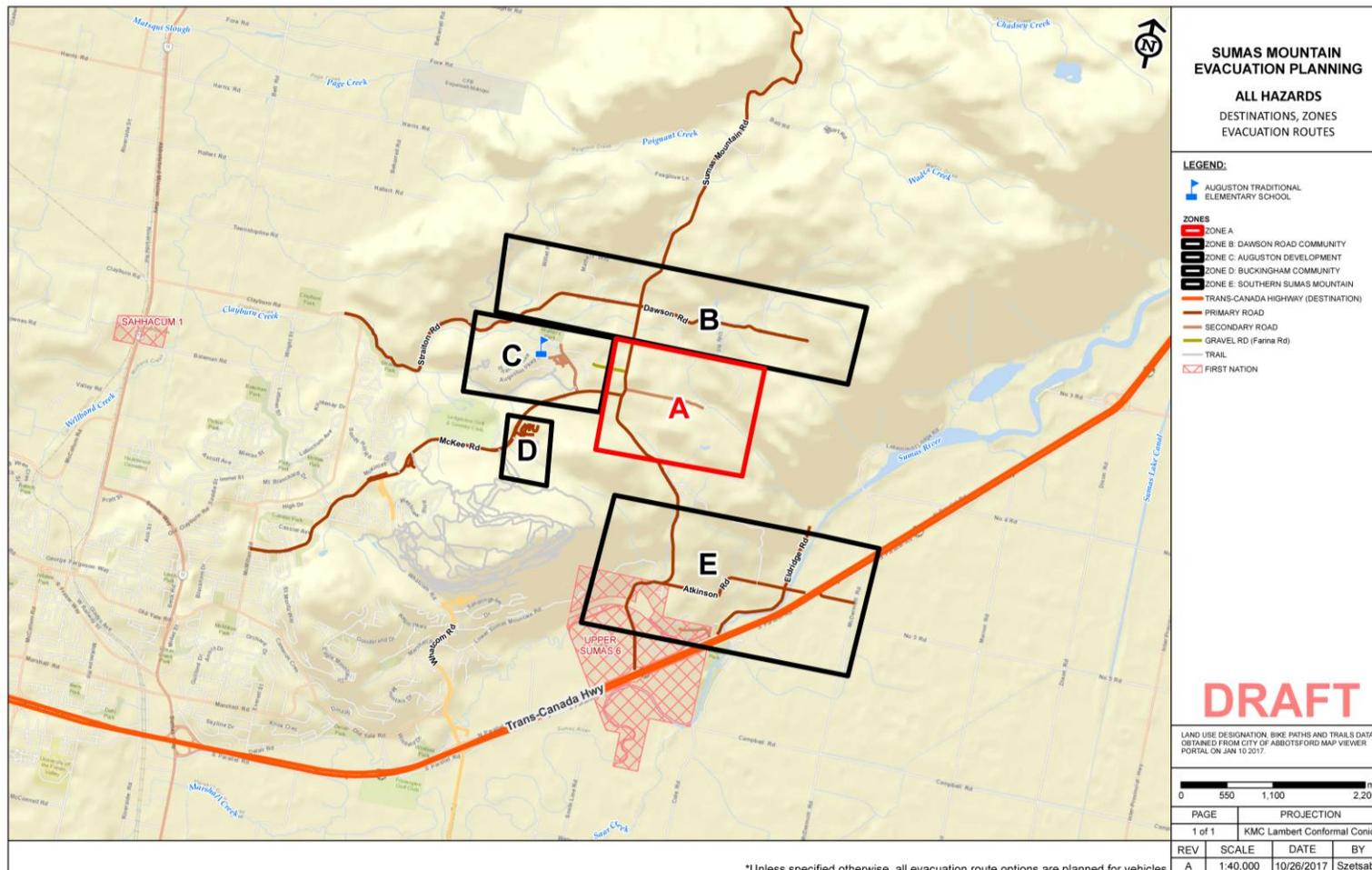


Pre-identified Evacuation Route Maps

In the event of an incident requiring the evacuation of the Sumas Mountain area and Sumas First Nation, the area has been divided into five evacuation areas:

- Zone A: Sumas Mountain Terminal Area**
- Zone B: Dawson Road Community**
- Zone C: Auguston Development**

- Zone D: Buckingham Community**
- Zone E: Southern Sumas Mountain**



*Unless specified otherwise, all evacuation route options are planned for vehicles

Zone A: Sumas Terminal Area



Sumas Terminal Area Vehicle Evacuation Routes:

- Head south on Sumas Mountain Road until reaching the highway.
- Head north on Sumas Mountain Road, it will eventually turn into “Upper Sumas Mountain Road”, which parallels with the Fraser River; Upper Sumas Mountain Road will end at Page Road, leading evacuees to the Matsqui Prairie neighbourhood.
- Head north on Sumas Mountain Road. Once at Dawson Road, go west. Dawson Road turns into “Straiton Road”, which leads into the Clayburn neighbourhood.
- Head north on Sumas Mountain Road until reaching McKee Road, then go west. McKee eventually intersects with Whatcom Road, which will lead to the highway.
- Head west on Keeping Road, head south on Sumas Mountain Road, then west onto McKee Road. McKee eventually intersects with Whatcom Road, which will lead to the highway.
- Head west on Keeping Road, then head south on Sumas Mountain Road until reaching the Highway.
- Head west on Keeping Road, head north on Sumas Mountain Road. It will eventually turn into “Upper Sumas Mountain Road”, which parallels with the Fraser River; Upper Sumas Mountain Road will end at Page Road, leading evacuees to the Matsqui Prairie neighbourhood.
- Head west on Keeping Road, then north on Sumas Mountain Road. Once at Dawson Road, go west. Dawson Road turns into “Straiton Road”, which leads into the Clayburn neighbourhood.

The above instructions pose multiple routes for evacuees to take from an all hazards approach. Caution must be taken when disseminating route information to the public to ensure that the route provided does not take evacuees towards the hazard itself.

Zone B: Dawson Road Community



SUMAS MOUNTAIN EVACUATION PLANNING

DAWSON ROAD COMMUNITY
 COMMUNITY AND EVACUATION ROUTES

LEGEND:

- AUGUSTON TRADITIONAL ELEMENTARY SCHOOL
- DAWSON ROAD COMMUNITY (ZONE B)
- EVACUATION ROUTE
- TRANS-CANADA HIGHWAY (DESTINATION)
- PRIMARY ROAD
- SECONDARY ROAD
- GRAVEL RD (FARINA RD)
- TRAIL
- FIRST NATION

DRAFT

BIKE PATHS AND TRAILS DATA OBTAINED FROM CITY OF ABBOTSFORD MAP VIEWER PORTAL ON JAN 10 2017.

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*Unless specified otherwise, all evacuation route options are planned for vehicles

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Dawson Road Community Vehicle Evacuation Routes:

- Make way onto Dawson Road (north or south) until it turns into Straiton Road, which will lead into the Clayburn neighbourhood.
- Make way onto Dawson Road (north or south) head (east or west) onto Sumas Mountain Road. Once at Sumas Mountain Road, head south until reaching the highway.
- Make way onto Dawson Road (north or south) head (east or west) onto Sumas Mountain Road. Once at Sumas Mountain Road, head north and it will eventually turn into “Upper Sumas Mountain Road”, which parallels with the Fraser River. Upper Sumas Mountain Road will end at Page Road, leading evacuees to the Matsqui Prairie neighbourhood.

The above instructions pose multiple routes for evacuees to take from an all hazards approach. Caution must be taken when disseminating route information to the public to ensure that the route provided does not take evacuees towards the hazard itself.

Zone C: Auguston Development



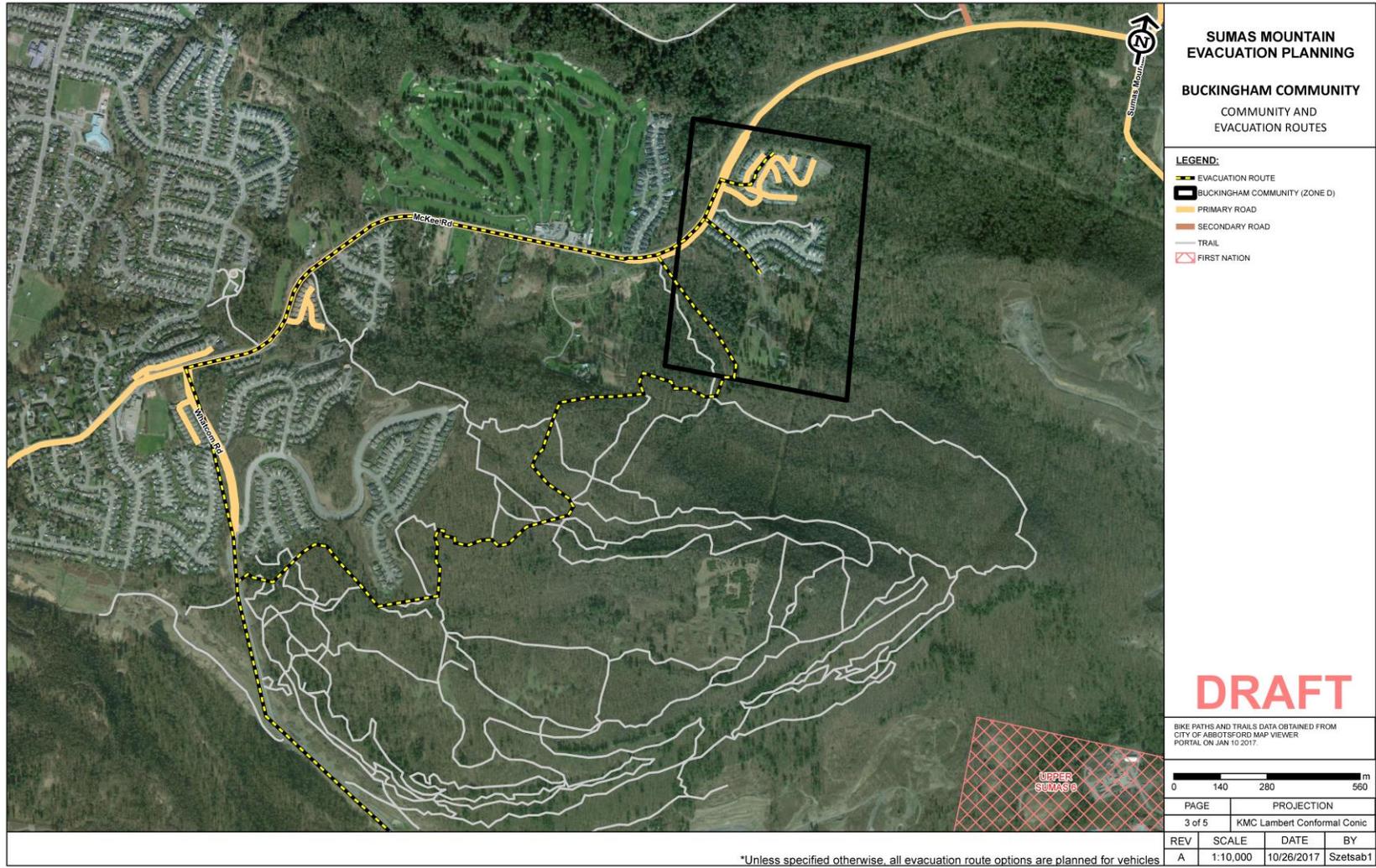
*Unless specified otherwise, all evacuation route options are planned for vehicles

Auguston Development Vehicle Evacuation Routes:

- Head south on Blauson Boulevard, and west on McKee Road. McKee eventually intersects with Whatcom Road, which will lead to the highway.
- Head South on Blauson Boulevard, and east on McKee Road. Once at Sumas Mountain Road, head south and that will lead to the Highway.
- Head South on Blauson Boulevard, and east on McKee Road. Once at Sumas Mountain Road, head north until it intersects with Dawson Road, once there go west. Dawson Road turns into “Straiton Road”, which leads into the Clayburn neighbourhood.
- Head South on Blauson Boulevard, and east on McKee Road. Once at Sumas Mountain Road, head north. It will eventually turn into “Upper Sumas Mountain Road”, which parallels with the Fraser River. Upper Sumas Mountain Road will end at Page Road, leading evacuees to the Matsqui Prairie neighbourhood.
- Farina Road is normally NOT used for vehicles, but pedestrians. However, it can be used in an emergency if people in the “Auguston Development” are unable to use Blauson Boulevard.

The above instructions pose multiple routes for evacuees to take from an all hazards approach. Caution must be taken when disseminating route information to the public to ensure that the route provided does not take evacuees towards the hazard itself.

Zone D: Buckingham Community

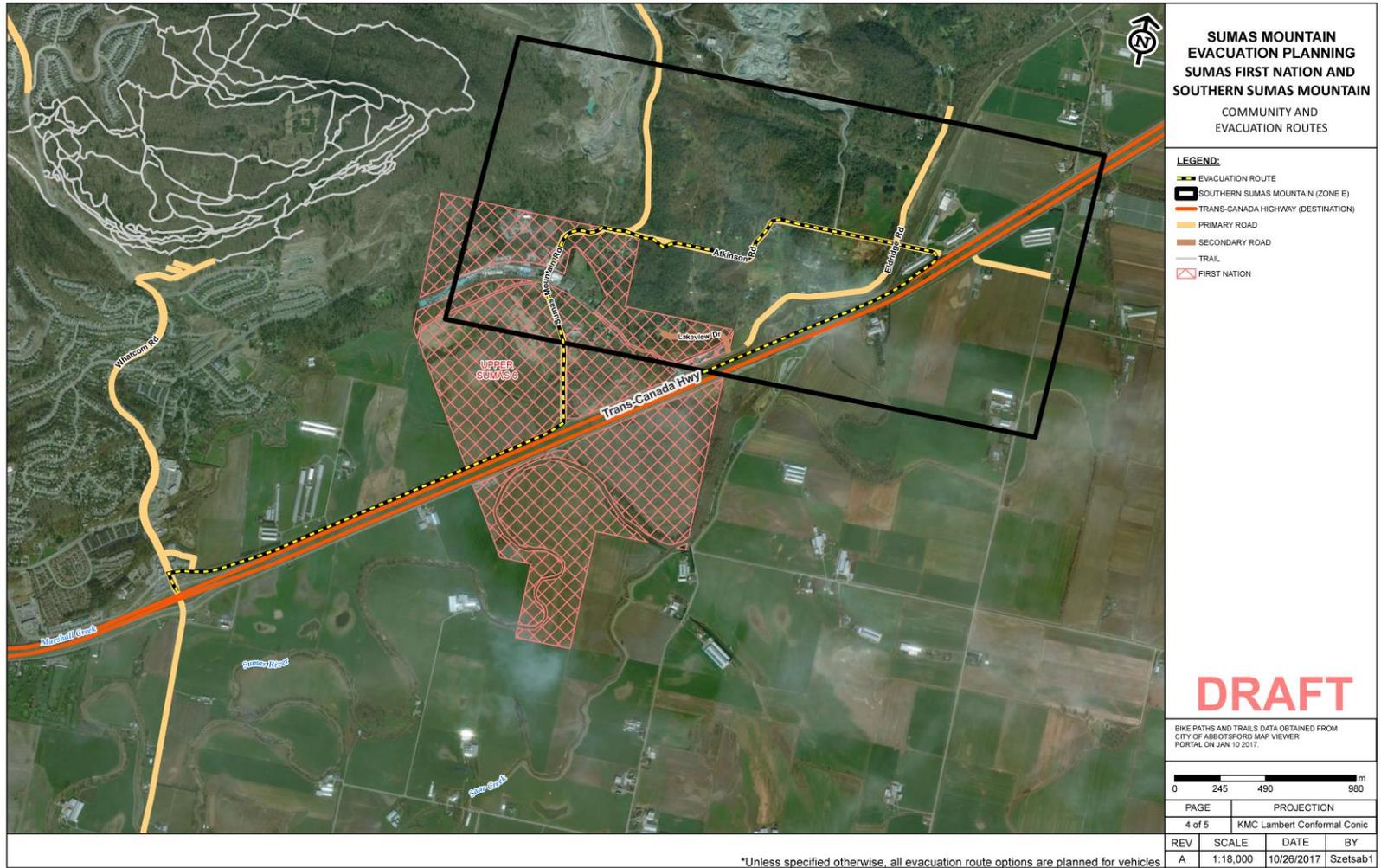


Buckingham Community Vehicle Evacuation Routes:

- Head to McKee Road and head west through the Upper Ten Oaks Neighbourhood to Whatcom Road and to the highway.

The above instructions pose multiple routes for evacuees to take from an all hazards approach. Caution must be taken when disseminating route information to the public to ensure that the route provided does not take evacuees towards the hazard itself.

Zone E: Southern Sumas Mountain



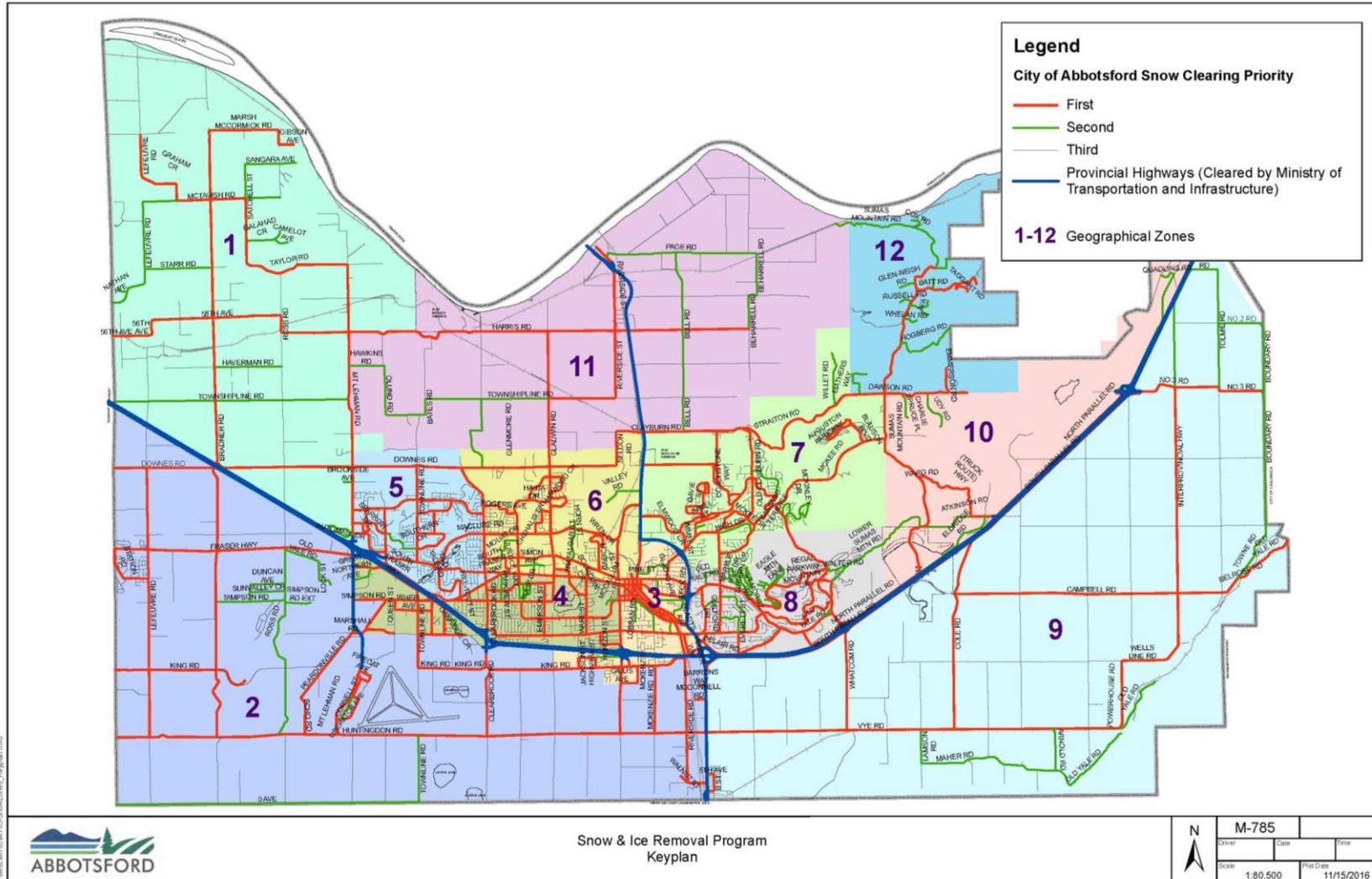
2788 Sumas Mountain Road, Abbotsford, BC V3G 2J2 (Commercial – Residential)

Southern Sumas Mountain Vehicle Evacuation Routes:

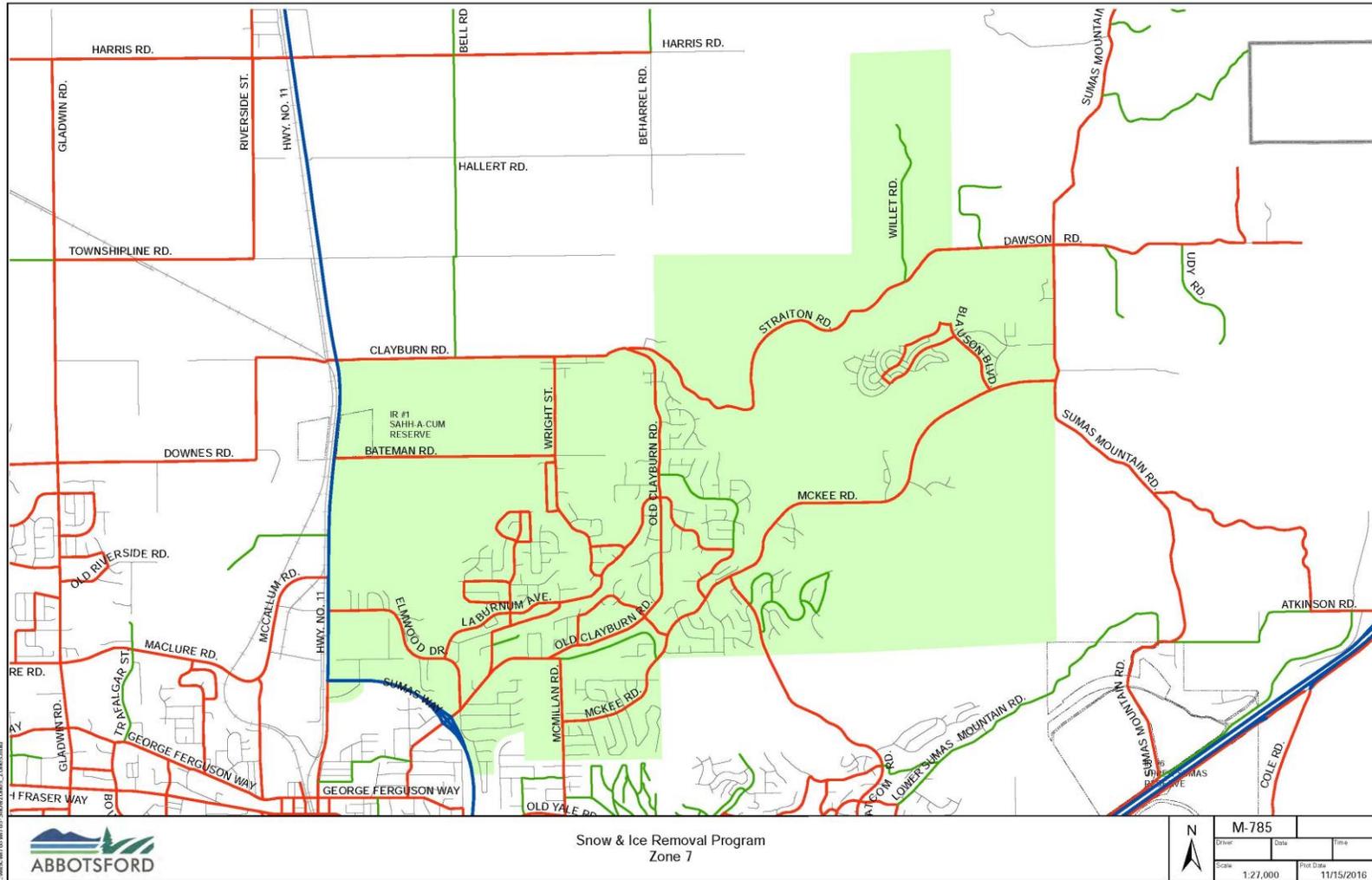
- Head south on Sumas Mountain Road until reaching the highway.
- Head north on Silver Way, then turn left (west) onto Sumas Mountain Road to go south until reaching the highway.
- Head north on Silver Way, then turn right (east) onto Atkinson Road. Continue on Atkinson Road, which leads to the highway.
- Head north on Silver Way, then turn left (west) onto Sumas Mountain Road. Once at Lower Sumas Mountain Road, follow it until Whatcom Road, then head south until reaching the highway.

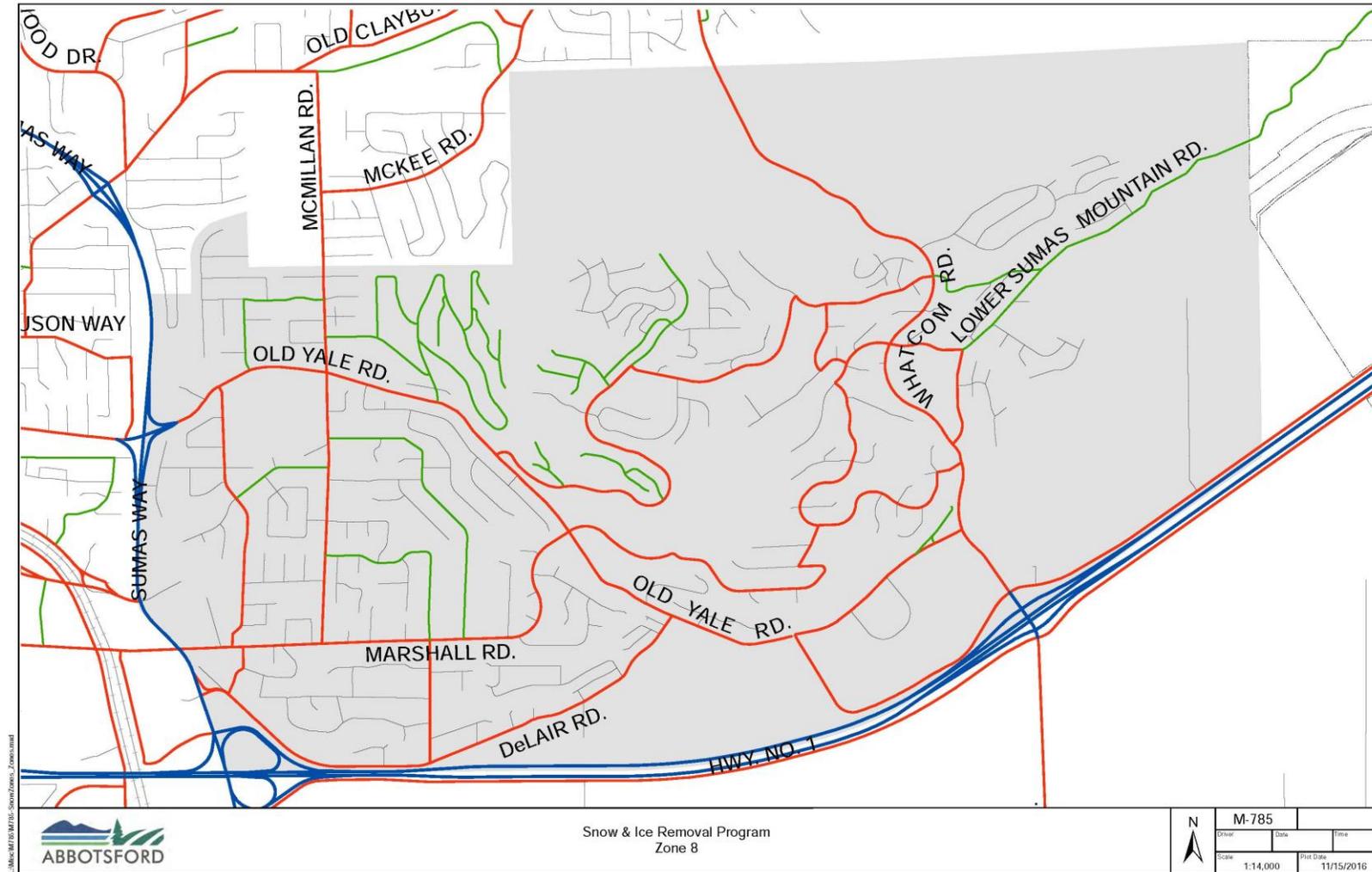
The above instructions pose multiple routes for evacuees to take from an all hazards approach. Caution must be taken when disseminating route information to the public to ensure that the route provided does not take evacuees towards the hazard itself.

Snow and Ice Removal Program Map

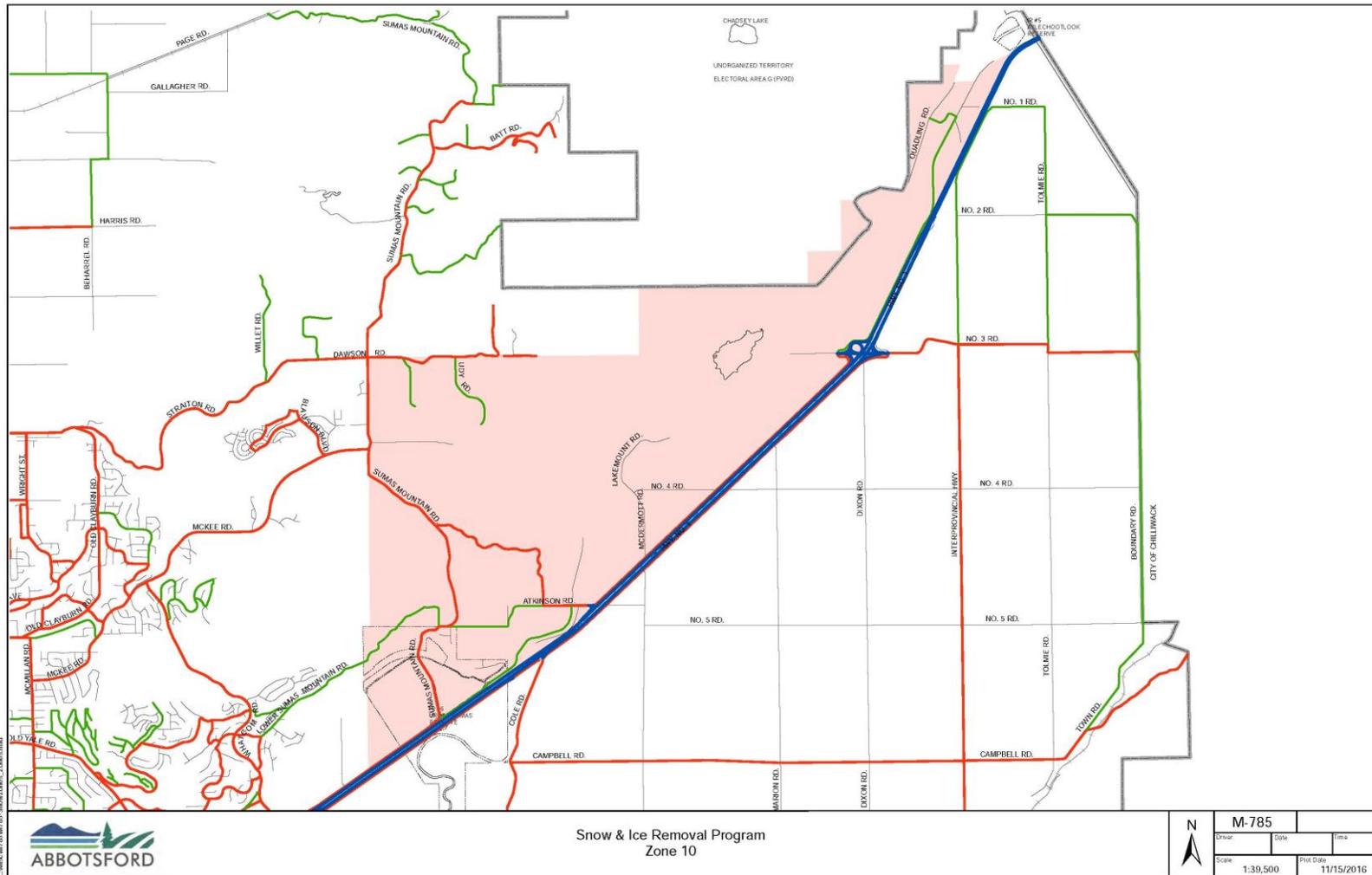


Evacuation and Shelter-in-Place Plan
 Appendix C – Sumas Mountain Evacuation Plan

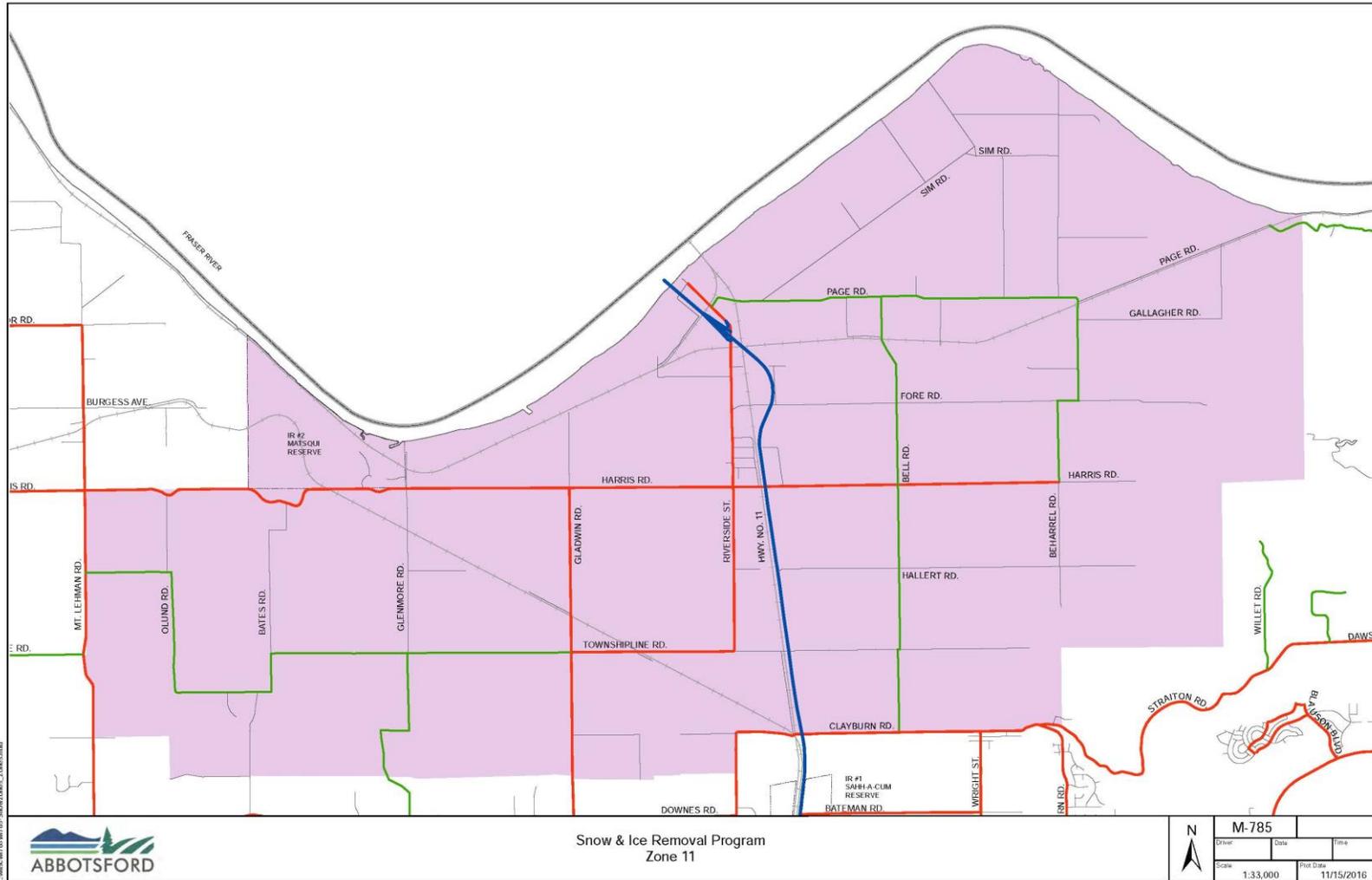


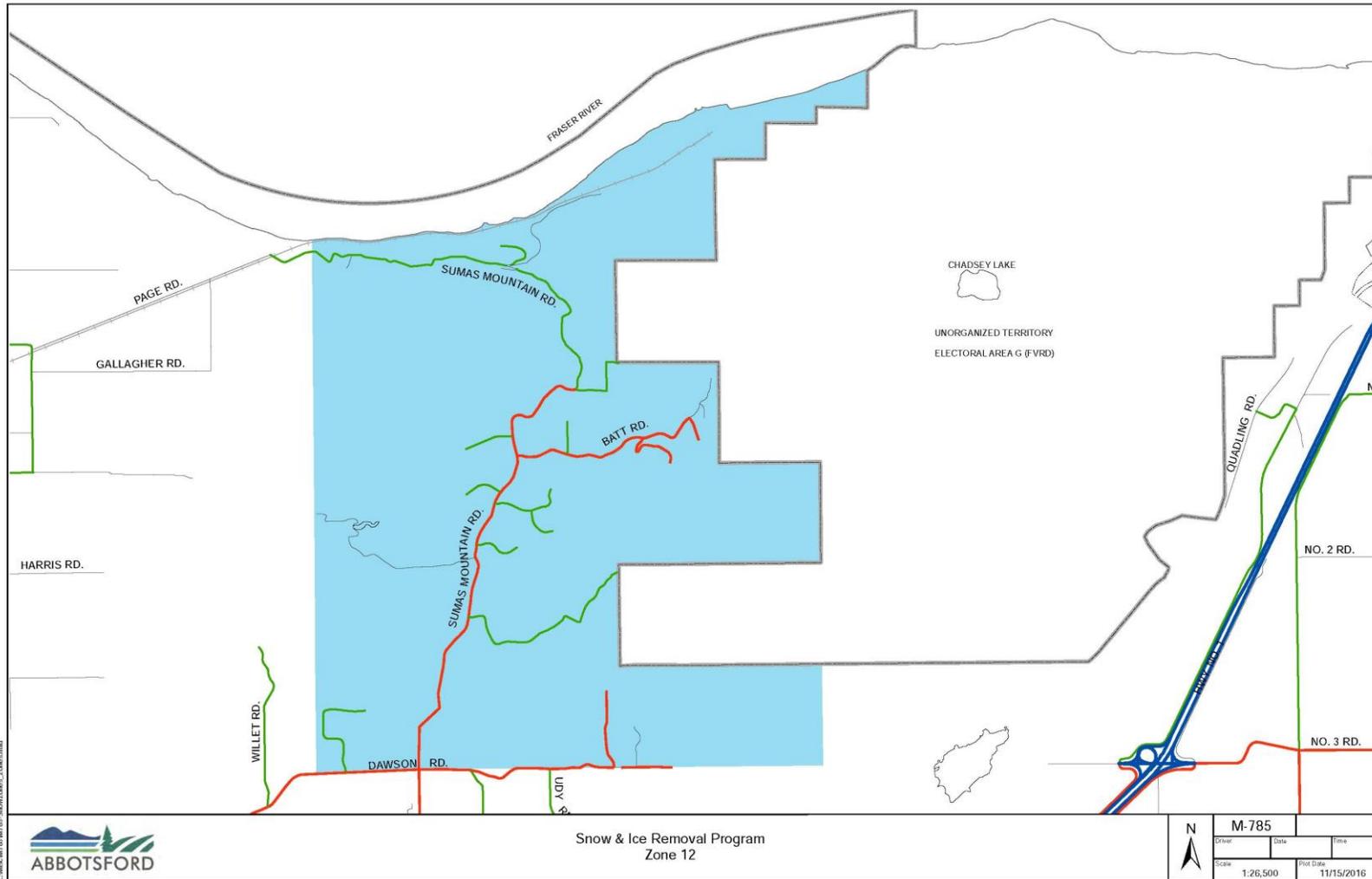


Evacuation and Shelter-in-Place Plan
 Appendix C – Sumas Mountain Evacuation Plan



Evacuation and Shelter-in-Place Plan
 Appendix C – Sumas Mountain Evacuation Plan





Industrial Facilities

Industrial facilities with identified hazards that could result in the need to take public safety measures within the vicinity of City of Abbotsford communities of the Sumas Mountain area include:

- Trans Mountain Sumas Terminal
- Mainland Sand & Gravel Ltd
- Fraser Pacific Enterprises Inc

Preparedness

Information regarding preparedness efforts that could be communicated to the City include:

- facilities identified potential impacts and evacuation/ shelter-in-place areas;
- the circumstances under which evacuation or shelter-in-place may be required;
- methods and procedures of notifications to the City; and
- opportunities to participate in exercises and training.

Response and Recovery

Should an incident occur within the industrial facility, the “responsible party” may be asked to:

- provide data and information to the City of Abbotsford EOC regarding public safety concerns and actions;
- provide a Liaison Officer to the City of Abbotsford EOC; and
- work with the City of Abbotsford representatives inclusive of the Public Information Officer, Liaison Officer and Planning Unit (Environmental Unit) for the purposes of collaboration and information sharing regarding air monitoring data.

Information regarding response and recovery efforts that may be communicated to the City include:

- initial notification of a confirmed incident that may impact the Sumas Mountain area inclusive of incident details to aid with the planning and implementation of public safety and emergency management activities;
- provision of technical advice to aid in the determination of appropriate public safety action, including whether to issue a Shelter-in-Place Order, Evacuation Alert/Order;
- situational updates for the incident should be provided to the City EOC through regular briefing from the responsible party’s ICP or EOC Liaison Officer; and
- the opportunity to participate in response and recovery activities as they relate to the City.

Responsible Party Contact Details Contacts

Business Name	Phone Number
Trans Mountain Corporation	1-888-876-6711 (24/7 emergency hotline)
Mainland Sand and Gravel Ltd.	(604) 826-4611
Fraser Pacific Enterprise Inc.	(604) 856-5443

APPENDIX D – MEDIA HOLDING MESSAGE TEMPLATES

General

“The safety of all citizens is our priority.”

“The latest information will be provided on www.abbotsford.ca and on Twitter @City_Abbotsford as available and as the situation unfolds.”

Evacuation

Alert

“We are aware of [insert incident details]. An evacuation alert has been issued for the communities of [insert community names] as of [insert date and time of evacuation]. Please check www.abbotsford.ca and Twitter @City_Abbotsford for the latest information and updates.”

Order

“We are aware of [insert incident details]. The communities of [insert community names] is/are being evacuated immediately as of [insert date and time of evacuation].”

“All members of the public in [insert community name] are to evacuate the area immediately. Should you have a vehicle, please proceed to [insert reception centre location]. For anyone requiring assisting in leaving the area, please proceed to [insert assembly point location]. Buses will be onsite to assist you in safely evacuating the area. It is requested that all evacuated citizens register at the reception centre. Please check www.abbotsford.ca and Twitter @City_Abbotsford for the latest information and updates.”

Rescind

This is the [insert position]. The Order to Evacuate for the communities of [insert community names] is no longer in effect. Citizens may return to the area unless advised otherwise through additional communications.”

Shelter-in-Place

Order

“We are aware of [insert incident details]. The communities of [insert community names] are to take refuge within their home or a nearby building as of [insert date and time]. Please check www.abbotsford.ca and Twitter @City_Abbotsford for the latest information and updates.”

Rescind

“This is the [insert position]. The Order to Shelter-in-Place for the communities of [insert community names] is no longer in effect. Citizens may return to the area unless advised otherwise through additional communications.”

APPENDIX E – DECLARATION OF STATE OF LOCAL EMERGENCY TEMPLATE

Declaration of State of Local Emergency ORDER

WHEREAS there is a *[type of hazard]* within the jurisdiction of the City of Abbotsford;

AND WHEREAS the *[nature of emergency]* poses an existing or imminent threat to people and property within the area known as *[jurisdictional area where emergency exists, e.g. Electoral Area A]*;

AND WHEREAS this *[type of hazard]* emergency requires prompt coordination of action or special regulation of persons or property to protect the health, safety or welfare of people or to limit damage to property;

NOW THEREFORE:

IT IS HEREBY ORDERED pursuant to Section 12 (1) of the Emergency Program Act (RS, 1996, Chap 111) that a state of local emergency exists in *[specific geographic boundaries of designated area]* due to *[short hazard description]* and *[short consequence statement]*;

IT IS FURTHER ORDERED THAT the City of Abbotsford, its employees, servants and agents are empowered pursuant to Section 13 (1) of the Emergency Program Act to do all acts and implement all procedures that are considered necessary to prevent or to alleviate the effects of the emergency.

ORDERED by the *[head of local authority]* this date, *[date – mm/dd/yyyy]*, to remain in force for seven days until *[date – mm/dd/yyyy]* at midnight unless cancelled by order of City of Abbotsford.

[Mayor or Designate],
City of Abbotsford

APPENDIX F – EVACUATION NOTIFICATION TEMPLATES

Evacuation Alert Template

EVACUATION ALERT

[DESCRIPTOR OF AREA]

[DATE (mm/dd/yyyy) AND TIME (24-hr clock)]

An Evacuation Alert has been issued by the City of Abbotsford at the Emergency Operations Centre (EOC).

[Briefly describe event and potential risk]

Because of the potential danger to life and health, the City of Abbotsford has issued an **Evacuation Alert** for the following areas:

[Geographic description including boundaries and properties potentially impacted]

An Evacuation Alert has been issued to prepare you to evacuate your premises or property should it be found necessary. Residents will be given as much advance notice as possible prior to an evacuation. However, you may receive limited notice due to changing conditions.

[Provide map or description of potential evacuation route and map of evacuation alert area]

WHAT YOU SHOULD DO:

- Locate all family members and designate a meeting area outside the evacuation area, should an Evacuation Order be called while separated.
- Pack essential items such as government-issued ID, medications, eyeglasses, valuable papers (e.g. insurance, credit, and mortgage information), immediate care needs for dependents and, if time and space permits, keepsakes for quick departure.
- Prepare to move disabled persons, children and/or neighbours, if assistance is needed.
- Prepare to take pets with you and move livestock to a safe area (if possible).
- Arrange transportation for all your household members. Fill the gas tanks of personal vehicles. If transportation assistance is needed, call *[contact number]*.
- Arrange accommodation for all members of the residence, if possible.
- Wait for an Evacuation Order to be issued before evacuating. Monitor *[news/radio/online source]* for information on evacuation orders and location of Reception Centres.

Further information will be issued at *[date/time/meeting location]* or visit *[website/social media page]* for more information.

[Signature of Mayor or Designate]

City of Abbotsford

Evacuation Order Template

EVACUATION ORDER

[DESCRIPTOR OF AREA]

[DATE (mm/dd/yyyy) AND TIME (24-hr clock)]

Pursuant to Section 12 (1) of the BC Emergency Program Act an **Evacuation Order** has been issued by the City of Abbotsford due to immediate danger to life safety due to *[briefly describe event]*.

Members of the Abbotsford Police Department and *[include other applicable agencies]* will be expediting this action.

The Evacuation Order is in effect for the following areas:

*[Geographic description including boundaries and properties impacted.
Include map of evacuation area and evacuation route]*

YOU MUST LEAVE THE AREA IMMEDIATELY

WHAT YOU SHOULD DO

- Follow the travel route provided and register at *[ESS Reception Centre address and name of facility]*.
- If you need transportation assistance from the area, advise the individual providing this notice or call *[contact number]*.
- Shut off all gas and electrical appliances, other than refrigerators and freezers.
- Close all windows and doors.
- Close gates (latch) but do not lock.
- Gather your family and, if you have room, take a neighbour or someone needing transportation. Do not use more vehicles than you have to.
- Take critical items (medicine, purse, wallet, and keys) only if they are immediately available. Take pets in pet kennels or on leash.
- Do not use the telephone unless you need emergency service.

Further information will be issued at *[date/time/meeting location]* or visit *[website/social media page]* for more information.

[Signature of Mayor or Designate]

City of Abbotsford

Evacuation Rescind Template

EVACUATION RESCIND

[DESCRIPTOR OF AREA]

[DATE (mm/dd/yyyy) AND TIME (24-hr clock)]

The Evacuation Order, pursuant to [Section 12 (1) of the BC Emergency Program Act] issued at [date and time] to the area(s) [geographic locations] has been rescinded.

[Indicate if an Evacuation Alert remains in effect]

An Evacuation Order may need to be reissued; however, if that is deemed necessary, the Evacuation Order process will re-commence.

WHAT YOU SHOULD DO:

- Fill the gas tank of personal vehicles.
- Bring a minimum of three days of food and essential supplies (e.g. medications, pet supplies) with you as local grocery stores may not yet have adequate stock.
- If your animals or livestock have been relocated, call [contact number] to coordinate their safe return.

For more information contact: *[insert contact details]*.

[Signature of Mayor or Designate]

City of Abbotsford

APPENDIX G – SHELTER-IN-PLACE NOTIFICATION TEMPLATES

Shelter-In-Place Order Template

SHELTER-IN-PLACE ORDER

[DESCRIPTOR OF AREA]

[DATE (mm/dd/yyyy) AND TIME (24-hr clock)]

Pursuant to *[cite legal authority]*, a Shelter-in-Place Order has been issued by the City of Abbotsford due to immediate danger to life safety due to *[briefly describe event]*.

The Shelter-in-Place Order is in effect for the following areas:

- *[Geographic description including boundaries and properties impacted.]*
- *[Include map of shelter-in-place area.]*

WHAT YOU SHOULD DO

- Go inside and close [and lock] all windows and exterior doors
- If there is a danger of explosion, close the window shades, blinds, or curtains
- Turn off all fans, heating and air conditioning systems. Close fireplace dampers
- Get your emergency kit and turn on the radio
- Cell phones may be overwhelmed or damaged during an emergency. It is ideal to have a hard-wired telephone in the room you select. If you do not have a hard-wired telephone, bring your cell phone and charger to ensure you have a method to communicate. Call your emergency contact and have the phone available if you need to report a life-threatening condition
- Go to an interior room without windows that is above-ground level, if you can. Because some chemicals are heavier than air, avoid sheltering in basements
- Bring your pets with you, and be sure to bring additional food and water supplies for them
- Use duct tape and plastic sheeting (heavier than food wrap) to seal all cracks around the door and any vents into the room. A wet towel can also be used to create a seal along doors and windows
- Monitor the radio, television, and Emergency Info BC online until you are told by local officials all is safe or you are told to evacuate

DO NOT leave your building or home until you receive notification that the danger has passed.

For more information contact: *[insert contact details]*.

[Signature of Mayor or Designate]

City of Abbotsford

Shelter-In-Place Rescind Template

SHELTER-IN-PLACE RESCIND

[DESCRIPTOR OF AREA]

[DATE (mm/dd/yyyy) AND TIME (24-hr clock)]

The Shelter-in-Place Order, pursuant to *[cite authority and legislation]* issued *[date and time]* to the area(s) *[geographic locations(s)]* is rescinded.

A Shelter-in-Place Order may need to be reissued. However, if that is deemed necessary the process will re-commence.

For more information contact: *[insert contact details]*.

[Signature of Mayor or Designate]

City of Abbotsford