



Regional District of Bulkley-Nechako HRVA Electoral Area 'A' Committee

Summary - Hazard Identification Workshop

Date: October 8th, 2021

Time: 12 pm – 3 pm

Format: Zoom

Overview

On Friday, October 8th, 2021, participants from the HRVA Committee for Electoral Area 'A' came together on Zoom to discuss and select the hazards that will be included in the process. This document provides a summary of what was discussed throughout the session. Thank you to everyone who took the time out of their work week to contribute to this session.

The Hazard Identification workshop objectives were as follows:

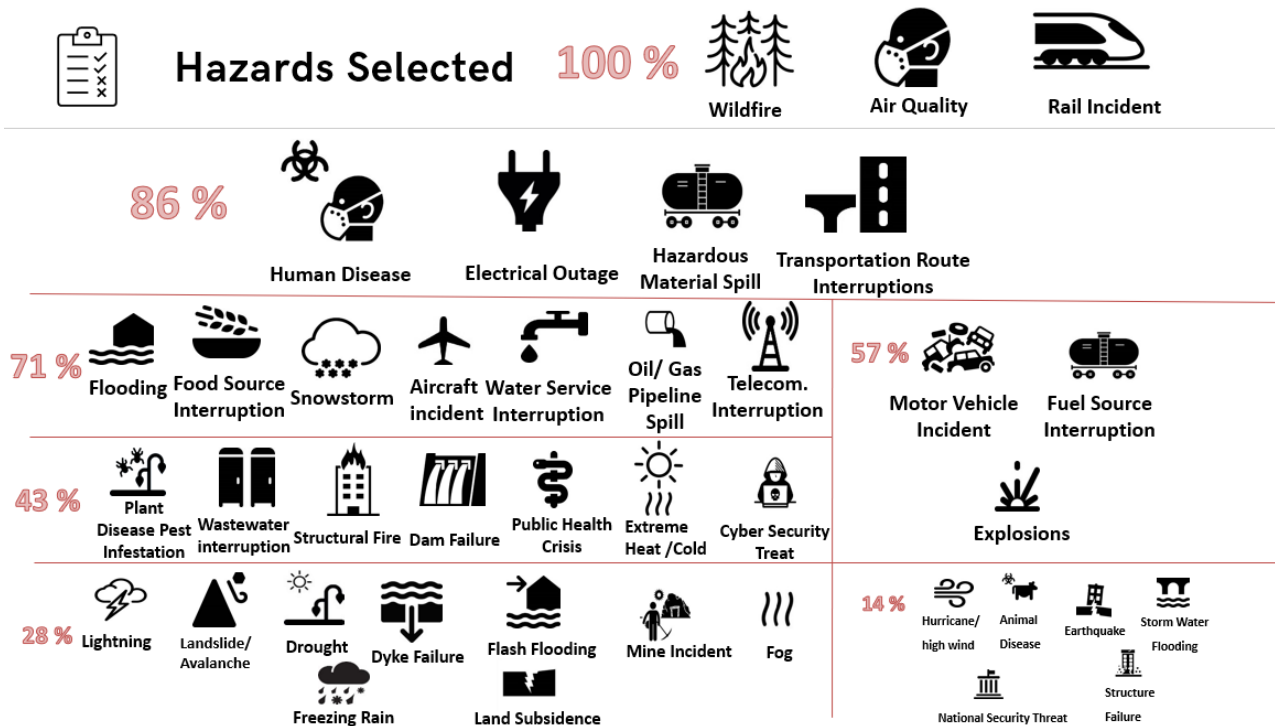
- select hazard for the electoral area "A" HRVA project focus;
- review and discuss known and historical hazards in electoral area "A";
- discuss, define, and identify on a map any unique local hazards in electoral area "A";
- identify additional hazard information needs/ sources.

Participants

Name	Organization
Laurence Turney	Village of Telkwa
Anthony Noonan	Witset
Megan Darcy	Agricultural Coordinator RDBN
Cpl. Dean Klubi	RCMP
Anastasia Ledwon	Bulkley Valley Search and Rescue
Jay Morton	BC Ambulance
Matt Herzog	ESSD Town of Smithers /RDBN
Brad Martin	Bulkley Valley Research Centre
Don Ford	Long Time Resident ESS Volunteer
Mark Fisher	RDBN
Deborah Jones-Middleton	RDBN
Chris Walker	RDBN
Liliana Dragowska	RDBN

12:00- 12:30 Welcome, Introductions, Goals and Outcomes

The session began with a welcome from Director Fisher and a round table of introductions., This was followed by a short presentation from Liliana reviewing the objectives of the meetings, overview of the HRVA committee process, and reviewed the results of the hazard identification survey for Electoral area 'A'. The results of the survey the HRVA committee members completed before the workshop were as follows and discussed:



12:30 - World Café Breakout Groups

Participants were broken out into groups under each of the sub-topic areas. Groups were given 30 minutes in the first round, and 25 min in subsequent round to discuss the following questions?

- Should this hazard be included in Area A HRVA?
- Is the hazard confined to a specific location in the electoral area? ID on map.
- What do you know about this hazard?
- What do we need to know about this hazard?

Participants were asked to refer to the two reference documents and join into one of three live google jam boards that were used to record the breakout room conversation and building on the conversations from each consecutive group.

The google Jam Boards Summarize the discussions in each group. These discussions and additional hazard research will be added to the Hazard Identification Background paper for area 'A'. The revised hazard background paper will be distributed and used by the advisory committee to assist in scoring the likelihood and consequence of hazards on the Electoral Area.

The reference documents used included [RDBN Hazard Identification Backgrounder](#) and [All 57 Hazard Definitions](#).

Breakout Room #1

Natural Hazards

Breakout Room 1



1. Air Quality



8. High Wind Event



2 & 3. Extreme Heat / Cold



4. Fog



5. Freezing Rain



10. Snowstorms



17. Wildfire



9. Lightning



19. Landslide



18. Avalanche



20. Land Subsidence (sinkholes)



22. Earthquake

Round 1	Round 2	Round 3
Brad Marten Anastasia Ledwon Dean Klubi	Meghan Matt Herzog Laurence Turney	Don Ford Jay Morton Mark Fisher

The notes below summarize the discussion in each group. Additional information and notes can be viewed on the [Google Jam Board for breakout room #1](#):

Hazard Grouping	Notes	Include
Air Quality	<ul style="list-style-type: none"> ➤ Yes, due to the mills, burning of slash piles, road dust, wood burning appliances, wildfire ➤ Quality decreases in wildfire season ➤ Bulkley Valley Airshed management plan ➤ Discussion about venting index, and respiratory issues Include incentive programs as mitigation measure 	Yes
Atmospheric	<ul style="list-style-type: none"> ➤ Include extreme heat/cold, fog, freezing rain, high wind, and snowstorms ➤ These atmospheric events cause human health issues, infrastructure failures, and critical service failures ➤ Fog is a concern in the fall in the Bulkley Valley and in Witset. Can cause motor vehicle incidents or service interruptions at the airport ➤ High wind events are increasing in hazard, with poplar trees being affected, especially those around power lines ➤ What is the trend of extreme weather events – see section on climate trends in backgrounder paper. 	Yes
Fire	<ul style="list-style-type: none"> ➤ Lightening and wildfire are interconnected ➤ Lightening is not a stand-alone hazard that can really be mitigated, we are not giving out lightning rods. ➤ Wildfire is linked to mental health ➤ Collect and share after action reports from RDBN wildfires and the effects on residents ➤ Are there stats on how many fires CN has cause in the province or our region? 	Yes
Geological	<ul style="list-style-type: none"> ➤ Avalanches are more of a back country concern and may affect minor transportation routes, but none that would affect critical infrastructure ➤ Landslides are a concern in the Bulkley Valley ➤ Recognition that landslides out of EA 'A' can have impact on interruption of critical services ➤ No land subsidence or sink hole issues ➤ Events outside of the region can have an impact on interruption of critical services 	Yes
Seismic	<ul style="list-style-type: none"> ➤ Not a local concern ➤ Small tremor in the past have been felt but no faults in the area 	No

Breakout Room #2

Hazards for Discussion



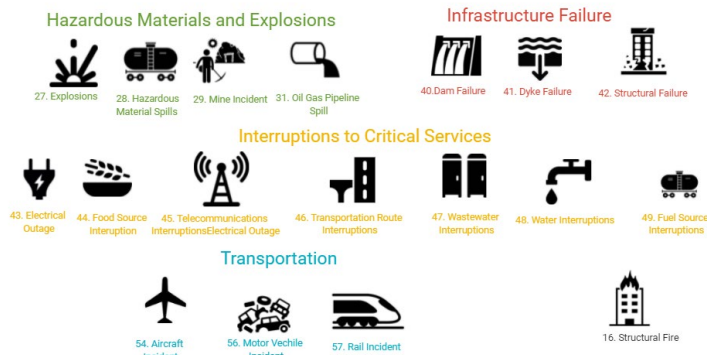
Round 1	Round 2	Round 3
Mark Fisher Don Ford Jay Morton Anthony Noonan	Brad Marten Anastasia Ledwon Dean Klubi	Meghan Matt Herzog Laurence Turney

The notes below summarize the discussion in each group. Additional information and notes can be viewed on the [Google Jam Board for breakout room #2:](#)

Hazard Grouping	Notes	Include
Disease and Epidemics	<ul style="list-style-type: none"> ➤ Yes, include animal, human and plant disease, pest infestation and public health to some degree they are a high consequence but currently a low to moderate likelihood ➤ Threat of animal and plant disease from out of region ➤ Pandemic messaging and education – low likelihood and high impact 	Yes
Flooding	<ul style="list-style-type: none"> ➤ Lakes, rivers and stream, and flash flooding can do a lot of damage in a short period of time ➤ Background paper indicated known hazard areas that are prone to flooding ➤ Review climate trends and projects from the background paper of hazard ID 	Yes
Hydrological	<ul style="list-style-type: none"> ➤ Drought impact to human life and safety ➤ No monitoring of ground wells on private property and downstream effects. ➤ Affected by climate change and climate modelling. ➤ Can affect food security, both wild and cultivated – need for public education on small mitigation issues like rain barrels 	Yes
Security	<ul style="list-style-type: none"> ➤ Cyber security is a big threat for government and businesses for Business Continuity ➤ Increase in people expressing dissatisfaction with political issues ➤ Water treatment and reservoirs is a huge security issue for communities and can interrupt critical services 	Yes

Breakout Room #3

Hazards for Discussion



Round 1	Round 2	Round 3
Meghan Matt Herzog Laurence Turney Anthony Noonan	Brad Marten Ledwon Dean Klubi	Mark Fisher Don Ford Jay Morton Anastasia

The notes below summarize the discussion in each group. Additional information and notes can be viewed on the [Google Jam Board for breakout room #3:](#)

Hazard Grouping	Notes	Include
Hazardous Materials and Explosions	<ul style="list-style-type: none"> ➤ Telkwa Coal Mine potential re-opening need more info on potential hazards associated with the mine ➤ PNG Pipeline runs through towns and through Telkwa pass ➤ Dome mountain gold mine- check EA, clarify risks and hazards ➤ Trucks and trains with hazardous materials in our community and in our watershed is important to have exclusion zones for highways. ➤ CN runs directly beside Witset Lake the community water source ➤ Find info on Davidson Mine, old silver and copper mine tailings 	Yes
Infrastructure Failure	<ul style="list-style-type: none"> ➤ Structural failure a consequence to extreme weather events or fires. ➤ Dam failures – need more information on historic tailings ponds ➤ Current dyke mitigation works in Telkwa to protect highways 	Yes
Interruptions to Critical Services	<ul style="list-style-type: none"> ➤ Yes, to all hazards, these are not confined to this region ➤ Witset water and wastewater interruptions are a high priority hazard as many community members are without clean water and septic numerous times a year. The water plant has been studied and there is no infrastructure money to replace, human rights issue. ➤ Need for neighborhood planning when it comes to rural residents' dependencies on critical infrastructure and services. i.e. Who has wells vs gravity feed water in certain neighborhoods? ➤ Need info how many community water systems are in rural areas. 	Yes
Transportation	<ul style="list-style-type: none"> ➤ Aircraft, motor vehicle and rail incidents ➤ Events outside of EA A are important and affect this region. ➤ List backup runways for air crafts ➤ Independent aircraft incidents – how do they impact local SAR resources and call outs. ➤ Need more info on CN Rail Response time and capacity within the region. Where are the hazmat teams, what is the capacity of the local area to deal with these types of events? 	Yes
Structural Fire	<ul style="list-style-type: none"> ➤ Yes, a lot of our rural area residents do not have fire protection ➤ Knowing structural fires may spread to wildfires ➤ Need for additional prevention education i.e., cleaning chimneys ➤ Need for first responders to know what hazardous or explosive materials are stored in what buildings in communities and rural area properties, building on the farms. ➤ Need for planning and evacuation routes for bigger community gathering structures and locations. 	Yes

Summary of Hazards Selected

The first step in the HRVA process was to identify the possible hazards that will need to be analyzed in the study area. The list below is an adaptation of hazards identified in the BC Emergency Management Regulation and a reflection of the HRVA Committees Selection of Hazards as discussed. Climate change is recognized as having impacts on the frequency and intensity of many hazards and may also cause new hazards to emerge.

This list will guide the HRVA analysis moving forward. The objective moving forward will be to consider the mostly likely hazards and consider historic experience data when scoring the frequency, severity, and consequence of each specific hazard.

Atmospheric

- ☒ 1. Air Quality ↗
- ☒ 2. Extreme Heat ↗
- ☒ 3. Extreme Cold ↗
- ☒ 4. Fog ↗
- ☒ 5. Freezing Rain or Drizzle ↗
- ☐ 6. Space Weather ↗
- ☐ 7. Hail ↗
- ☒ 8. Hurricane/Typhoon/High Wind Event ↗
- ☐ 9. Lightning ↗
- ☒ 10. Snowstorms and Blizzards ↗
- ☐ 11. Tornado ↗

Disease & Epidemic

- ☒ 12. Animal Disease ↗
- ☒ 13. Human Disease (Includes Pandemic/Epidemic) ↗
- ☒ 14. Plant Disease and Pest Infestation ↗
- ☒ 15. Public Health Crisis

Fire

- ☒ 16. Structure Fire
- ☒ 17. Wildfire ↗

Geological

- ☒ 18. Avalanche ↗
- ☒ 19. Landslide/Debris Flow ↗
- ☐ 20. Land Subsidence (and Sinkholes) ↗
- ☐ 21. Submarine Slides

Seismic

- ☐ 22. Earthquake
- ☐ 23. Liquefaction
- ☐ 24. Tsunami (Tectonic and Terrestrial)

Volcanic

- ☐ 25. Ash Fall
- ☐ 26. Volcanic Flow (Pyroclastic, Lava, Lahars)

Hazardous Materials and Explosions

- ☒ 27. Explosions
- ☒ 28. Hazardous Materials Spill
- ☒ 29. Mine Incident

- ☐ 30. Nuclear Incident
- ☒ 31. Oil or Gas Pipeline Spill
- ☐ 32. Space Debris

Hydrological

- ☒ 33. Drought ↗
- ☐ 34. Seiche ↗
- ☐ 35. Storm Surge ↗

Flooding

- ☒ 36. Lake, River, and Stream Flooding ↗
- ☐ 37. Coastal Flooding ↗
- ☐ 38. Storm Water Flooding (urban, local, pluvial) ↗
- ☒ 39. Flash Flooding ↗

Infrastructure Failure

- ☒ 40. Dam and Spillways Failure ↗
- ☒ 41. Dike Failure ↗
- ☐ 42. Structure Failure ↗

Interruptions to Critical Services

- ☒ 43. Electrical Outage ↗
- ☒ 44. Food Source Interruption (supply chain, or community food stores) ↗
- ☒ 45. Telecommunications Interruption ↗
- ☒ 46. Transportation Route Interruption ↗
- ☒ 47. Wastewater Interruption ↗
- ☒ 48. Water Service Interruption (Includes shortage and contamination) ↗
- ☒ 49. Fuel Source Interruption ↗

Security

- ☒ 50. Cyber Security Threat
- ☐ 51. National Security Threat
- ☐ 52. Public Disturbance
- ☐ 53. Major Planned Event

Transportation

- ☒ 54. Aircraft Incident
- ☐ 55. Marine Vehicle Incident
- ☒ 56. Motor Vehicle Incident
- ☒ 57. Rail Incident

Unique Hazards

Committee members discussed unique hazards that are not covered by the list above, these included:

Mental Health Impacts

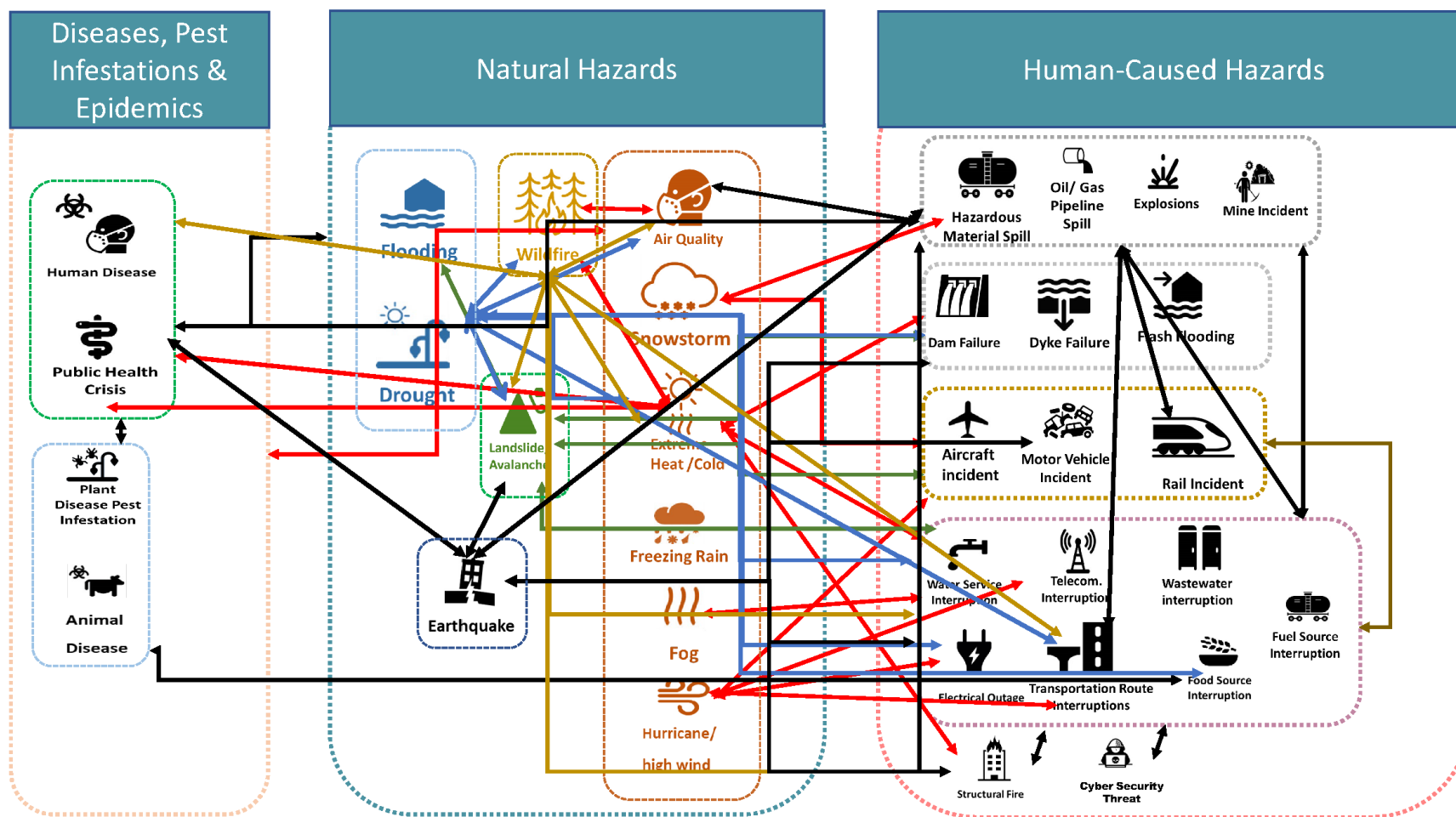
Information Transfer – where residents get their information. There are bad sources of information. Information transfer can be a hazard to rural residents and could apply to the security and safety of rural residents.

2:45 PM - 3:00 PM Wrap up and next steps

Committee members discussed the need for Liliana to share a summary of selected hazards to be confirmed at the next committee meeting and then input into the provinces online tool.

Committee members were asked to complete an evaluation of the meeting once a summary is sent out and to complete the doodle poll for availability on a next meeting day at the end of November or the beginning of December on community resiliency to the selected hazards.

In addition, Committee members discussed the benefit of Liliana creating a visualization depicting the interconnectedness of identified hazards, this diagram can be seen below:



Hazard Groupings

Atmospheric Disease & Epidemic Geological Hazardous Materials Hydrological
Fire Infrastructure Failure Interruptions to Critical Services Security Transportation