# HRVA Prioritizing Risk & Resiliency Strategies

September 20, 2022 5:00 am

Southside Fire Hall

#### In Attendance

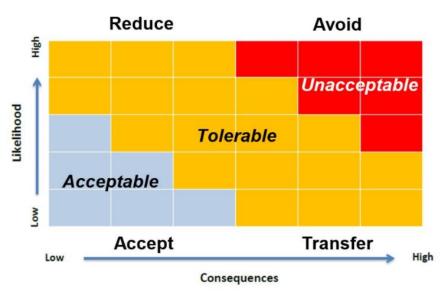
- Director Clint Lambert
- Cole McEntire

### Regrets

- Jim D'Andrea
- Ken Neilson
- Ron Van Tine
- > Travis Crowther
- Nyree Hazelton

## **Introduction Summary Hazard Matrix**

- Scott Zayac
- Cindy Raasveld
- Monika Eriksen
- Trevor Moyah
- Aileen Serle
- Ginger Moyah
- Anne MacDowall
- Jon & Cia Solecki
- Barbara Tom



- > This is the common Hazard Risk Matrix.
- The hazard list referenced within this report is based on the 38 of the 57 hazards, the Hazard Risk Matrix, as shown here, is a useful tool for a local authority during the process of determining the level of risk and the potential consequences to help determine options to reduce, avoid, accept, or transfer responsibility of the four pillars of emergency management (Mitigate, Prepare, Respond, Recover).
- > Methodology How is the matrix created and what does it tell us:
  - For the Likelihood Scoring we used the Median Score.
  - For the Consequence (impact expressed in numbers) Scoring we used the mean, which is the average score.

## Hazard Scoring

This table summarizes the likelihood scoring and consequence scoring. The different colours represent where they fall on the Hazard Risk Matrix for Acceptable, Tolerable and Unacceptable.

	Priority	Hazard List	Current Likelihood	Consequence Total	Future Likelihood
1	赫	Wildfire	D - Likely	31	D - Likely
2	M	Dam and Spillways Failure	B - Unlikely	23	C - Probable

	Priority	Hazard List	Current Likelihood	Consequence Total	Future Likelihood
3	X.	Public Disturbance	C - Probable	19	C - Probable
4	×.	Human Disease	D - Likely	17	D - Likely
5		Marine Vehicle Incident	C - Probable	16	C - Probable
6	ųî.	Public Health Crisis	C - Probable	16	C - Probable
7	Ъ.	Water Service Interruption	C - Probable	15	C - Probable
8	-155	Food Source Interruption	C - Probable	15	C - Probable
9	<b>F</b> I	Transportation Route Interruption	C - Probable	14	C - Probable
10	¥.	Explosions	A - Rare	14	A - Rare
11		Wastewater Interruption	B - Unlikely	14	B - Unlikely
12	Ô	Structure Fire	D - Likely	13	D - Likely
13		Hazardous Material Spill	B - Unlikely	13	B - Unlikely
14		Fuel Source Interruption	C - Probable	13	C - Probable
15		Structural Failure	B - Unlikely	13	B - Unlikely
16	( <u>"A</u> »)	Telecommunications Interruption	D - Likely	12	D - Likely
17		Lake, River, and Stream Flooding	D - Likely	12	D - Likely
18	÷ Å	Extreme Heat	C - Probable	12	D - Likely
19		Oil or Gas Pipeline Spill	A - Rare	12	C - Probable
20	H	Earthquake	A - Rare	11	A - Rare
21	4	Electrical Outage	E - Almost Certain	11	E - Almost Certain
22	<b>6</b>	Freezing Rain or Drizzle	D - Likely	10	D - Likely
23	8	Cyber Security Threat	C - Probable	10	D - Likely
24	P	Lightning	E - Almost Certain	10	E - Almost Certain
25	<b>▲</b> <sup>®</sup>	Landslide/ Debris Flow	B - Unlikely	10	B - Unlikely
26		Motor Vehicle Incident	C - Probable	10	C - Probable
27	Ç.	Snowstorms and Blizzards	D - Likely	9	D - Likely
28	<mark>۴</mark>	Drought	C - Probable	9	C - Probable
29	**f	Plant disease and Pest Infestation	E - Almost Certain	9	E - Almost Certain
30	*	Extreme Cold	D - Likely	9	D - Likely
31	*	Animal Disease	C - Probable	18	C - Probable
32	★	Aircraft Incident	A - Rare	7	A - Rare
33	¢. •,∀.	Space Weather	B - Unlikely	7	B - Unlikely
34	<b>Å</b>	Mine Incident	A - Rare	7	В

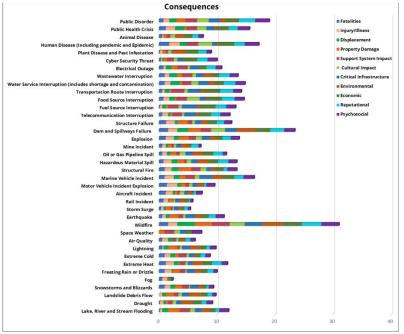
	Priority	Hazard List	Current Likelihood	Consequence Total	Future Likelihood
35	<b>S</b>	Air Quality	D - Likely	6	D - Likely
36	U	Rail Incident	A - Rare	6	A - Rare
37	∰:∎	Storm Surge	A - Rare	5	A - Rare
38	111	Fog	E - Almost Certain	2	E - Almost Certain

Comments:

- > Surprised the Dam and Spillway Failure was a rating of 23, thought this would be lower.
  - In Area E if the dam failed, some felt there would not be a great impact as those further downstream.
  - The Kenney Dam and the spillways are a security concern for the Federal and Provincial Government, as they could be a significant target in a war situation.

Consequence Scoring Summary								
0- None	1 - Low	2 - Medium	3 - High	4 - Extreme				

Here is a visual breakdown of the total scores for the Consequence Scoring, based on the 11 subcategories, which were totaled and into are reflected in the consequence stacking table.



#### Comments:

- > Dam and Spillway Failure:
  - Although some felt this could not affect them directly, this could affect the transportation of goods and supplies to our area.
  - For example, last fall with the flooding down south, supplies were unable to be delivered from the lower mainland as there were road closures.
- > Was surprised Snowstorm and Blizzards was rated low.
  - Many residents are prepared with generators for any weather conditions that may happen.

#### **Hazard Matrix**

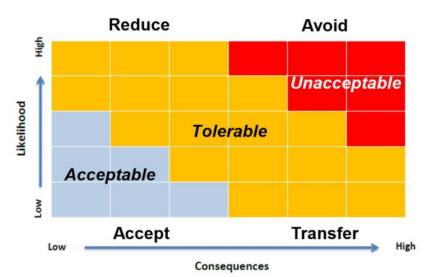
		ral Area E HRVA Risk Piori	ty Matrix Avoid		
	Reduce Electrical Outage (11)		Avoid		
	Lightnein gr (10) Lightnein gr (10) Plant Disease and Pest Infestation (9)				
Air Quality (6)	Human Disease (17) Structural Fire (13) Telecommunication Interruption (12) Lake, River and Stream Flooding (12) Freezing Rain or Drizzle (10) Snowstorms and Blizzards (9) Extreme Cold (9)		Wildfire (31)		
	Public Disorder (19) Marine Vehicle Incident (16) Public Health Crisis (16) Water Service Interruption (15) Food Source Interruption (15) Transportation Route Interruption (14) Fuel Source Interruption (13) Extreme Heat (12) Cyber Security Threat (10) Motor Vehicle Incident (10) Drought (9)				
Animal Disease (8) Space Weather (7)	Wastewater Interruption (14) Hazardous Material Spill (13) Structure Failure (13) Landsiide Debris Flow (10)	Dam and Spillways Failure (23)			
Fog (2) Aircraft Incident (7) Mine Incident (7) Rail Incident (6) Storm Surge (5)	Explosion (14) Oil or Gas Pipeline Spill (12) Earthquake (11)				
0-8	9 - 17 Accept	18 - 26	27 - 35 Transfer	36 - 44	⇒ Higi

Here are the results shown in the Hazard Risk Matrix.

Comments:

- > Surprised at Plant Disease and Infestation is so high.
  - Bark beetle had a big impact on our forests.

#### **Resiliency Strategies**



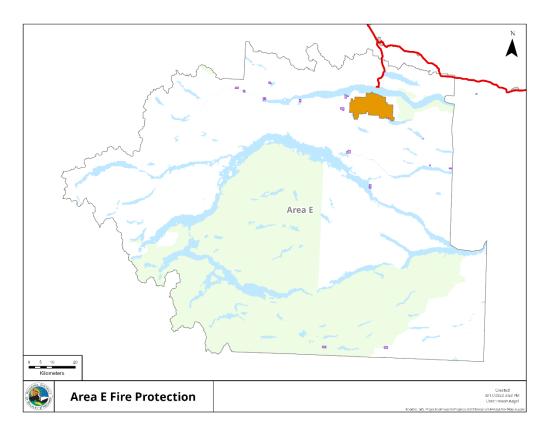
Going back to the idea of how we use the Hazard Matrix when looking for Resiliency Strategies, the highest priority Risk Reduction Ideas would be for the Unacceptable and Tolerable hazards. Strategies can include ways to reduce the risk, avoid the risk or transfer the risk.

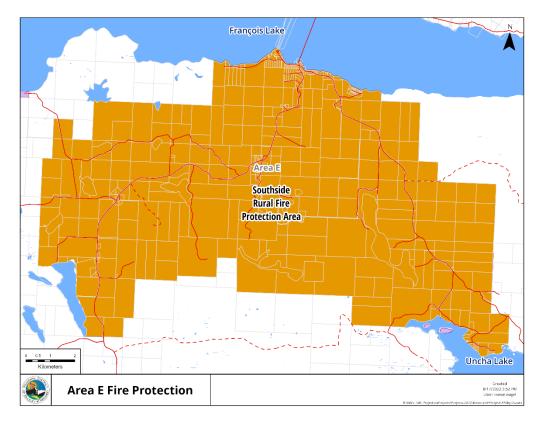
#### **Identifying Risk Reduction Measures**

- Emergency Response:
  - Strategies for increasing response capacity and coordination.
- > Programs, Services and Education:
  - Strategies for enhancing public awareness and capabilities of response personnel.
- > Social and Non-Structural Mitigation:
  - Plans, Bylaws, Regional Strategies for encouraging safer more sustainable communities.
- > Environmental Mitigation:
  - Strategies for repairing or preventing further environmental damage.
- Economic Mitigation
  - Strategies for increasing regional economic resilience.
- Structural Mitigation:
  - Strategies for preventing damage to infrastructure and homes.

Some examples of risk reductions measures are:

- The Southside Rural Fire Department providing Fire Protection to a specified area of the Electoral Area.
- > Cheslatta Carrier Nation Community Response Trailers.
- > Bulkley-Nechako Emergency & Public Alerts.





#### **Risk Reduction Measures Form**

- > When considering your suggestions please consider:
  - What is Practical?
  - What falls under the jurisdiction of the RDBN? What can the RDBN do?
  - What risks does the RDBN to transfer and advocate for?
  - What risks can external agencies reduce?
  - What risk can residents assist in reducing?

• How do we reduce, transfer and avoid risks? Where are the opportunities. Comments:

- > Suggestion to add Southside Health & Wellness Centre under Health Strategies.
- > RDBN to connect with the Chinook Emergency Response group.

### Next Steps

- > Return completed Risk Reduction Measure Form by *Friday October 7 by 4:30 pm*.
- The RDBN will be hosting a dinner once the draft HRVA is completed and will present the document to the committee.