

HRVA
Prioritizing Risk & Resiliency Strategies

September 28, 2022 2:00 pm

Microsoft Teams

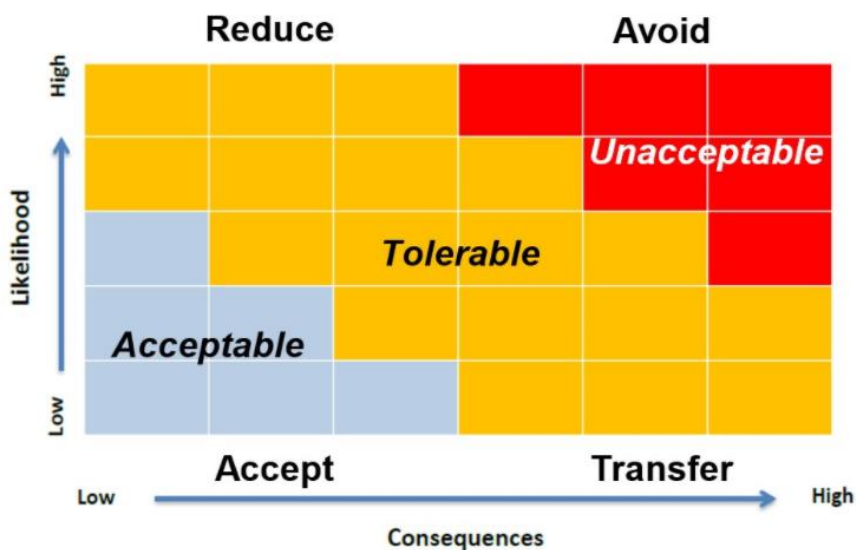
In Attendance

- Director Jerry Petersen
- Wayne Salewski
- Ian Leslie
- Craig Smith
- Kevin Day
- Gilbert Vickers
- Michelle Roberge

Regrets

- Jason Alexis
- Chris Mushumanski
- Donna Williams
- Ken Young
- James Simpson
- Michelle Racher
- Ken Isaak
- Geoff Sargent
- Aman Paul
- John Kochel
- Nadine Frenkel

Introduction Summary Hazard Matrix



- This is the common Hazard Risk Matrix.
- The hazard list referenced within this report is based on the 37 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.

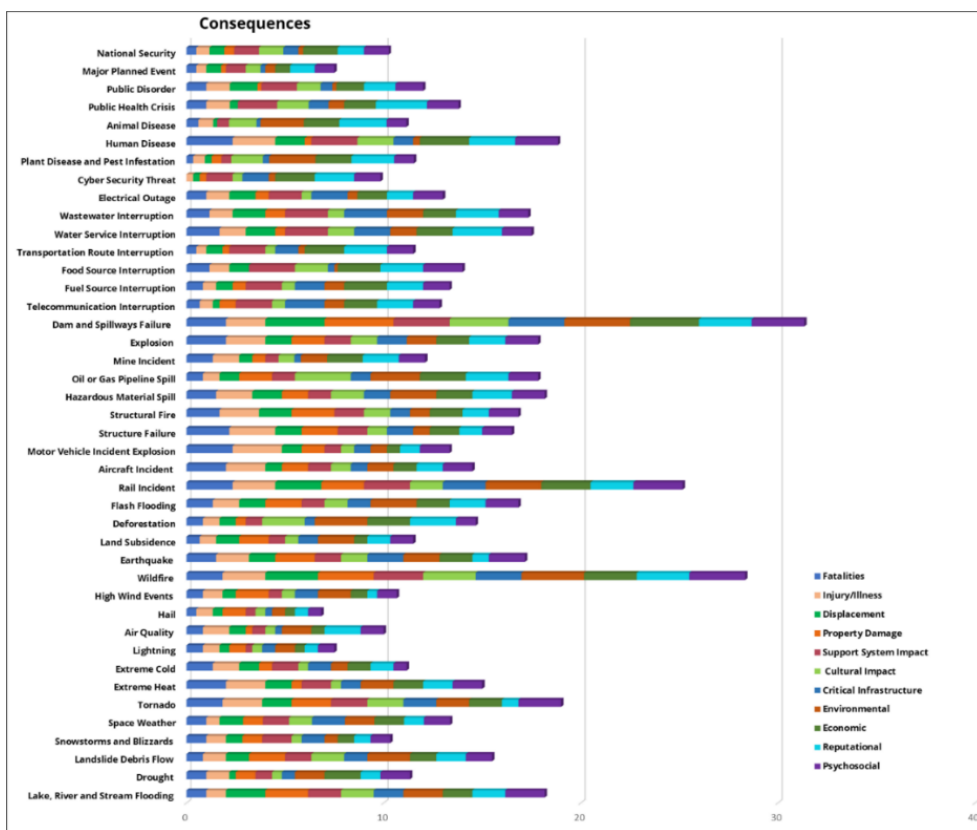
Priority	Hazard List	Current Likelihood	Consequence Total	Future Likelihood
1	 Dam and Spillways Failure	B - Unlikely	31	B - Unlikely
2	 Wildfire	D - likely	28	E - Almost Certain
3	 Rail Incidents	D - likely	25	D - likely
4	 Tornado	B - Unlikely	19	B - Unlikely
5	 Human Disease	C - Probable	19	D - likely
6	 Lake, River, and Stream Flooding	D - likely	18	D - likely
7	 Hazardous Material Spill	C - Probable	18	D - likely
8	 Oil or Gas Pipeline Spill	C - Probable	18	C - Probable
9	 Explosions	B - Unlikely	18	C - Probable
10	 Water Service Interruption	C - Probable	18	C - Probable
11	 Wastewater Interruption	C - Probable	17	C - Probable
12	 Earthquake	B - Unlikely	17	B - Unlikely
13	 Structure Fire	D - likely	17	E - Almost Certain
14	 Flash Flooding	C - Probable	17	C - Probable
15	 Structural Failure	C - Probable	17	C - Probable
16	 Landslide/ Debris Flow	C - Probable	16	C - Probable
17	 Extreme Heat	D - likely	15	D - likely
18	 Deforestation	D - likely	15	D - likely
19	 Aircraft Incident	C - Probable	15	C - Probable
20	 Food Source Interruption	C - Probable	14	D - likely
21	 Public Health Crisis	C - Probable	14	D - likely
22	 Space Weather	B - Unlikely	13	B - Unlikely
23	 Motor Vehicle Incident	D - likely	13	D - likely
24	 Fuel Source Interruption	C - Probable	13	C - Probable
25	 Electrical Outage	D - likely	13	E - Almost Certain
26	 Telecommunications Interruption	D - likely	13	E - Almost Certain
27	 Mine Incident	B - Unlikely	12	C - Probable
28	 Public Disturbance	C - Probable	12	C - Probable

Priority	Hazard List	Current Likelihood	Consequence Total	Future Likelihood
29	Plant disease and Pest Infestation	C - Probable	12	D - likely
30	Transportation Route Interruption	C - Probable	12	D - likely
31	Land Subsidence	B - Unlikely	12	B - Unlikely
32	Drought	C - Probable	11	D - likely
33	Extreme Cold	D - likely	11	D - likely
34	Animal Disease	C - Probable	11	D - likely
35	Hurricane/ Typhoon/High Wind	C - Probable	11	D - likely
36	Snowstorms and Blizzards	E - Almost Certain	10	E - Almost Certain
37	National Security Threat	C - Probable	10	C - Probable
38	Air Quality	E - Almost Certain	10	E - Almost Certain
39	Cyber Security Threat	C - Probable	10	C - Probable
40	Lightning	E - Almost Certain	8	E - Almost Certain
41	Major Planned Event	C - Probable	8	C - Probable
42	Hail	C - Probable	7	C - Probable

Consequence Scoring Summary

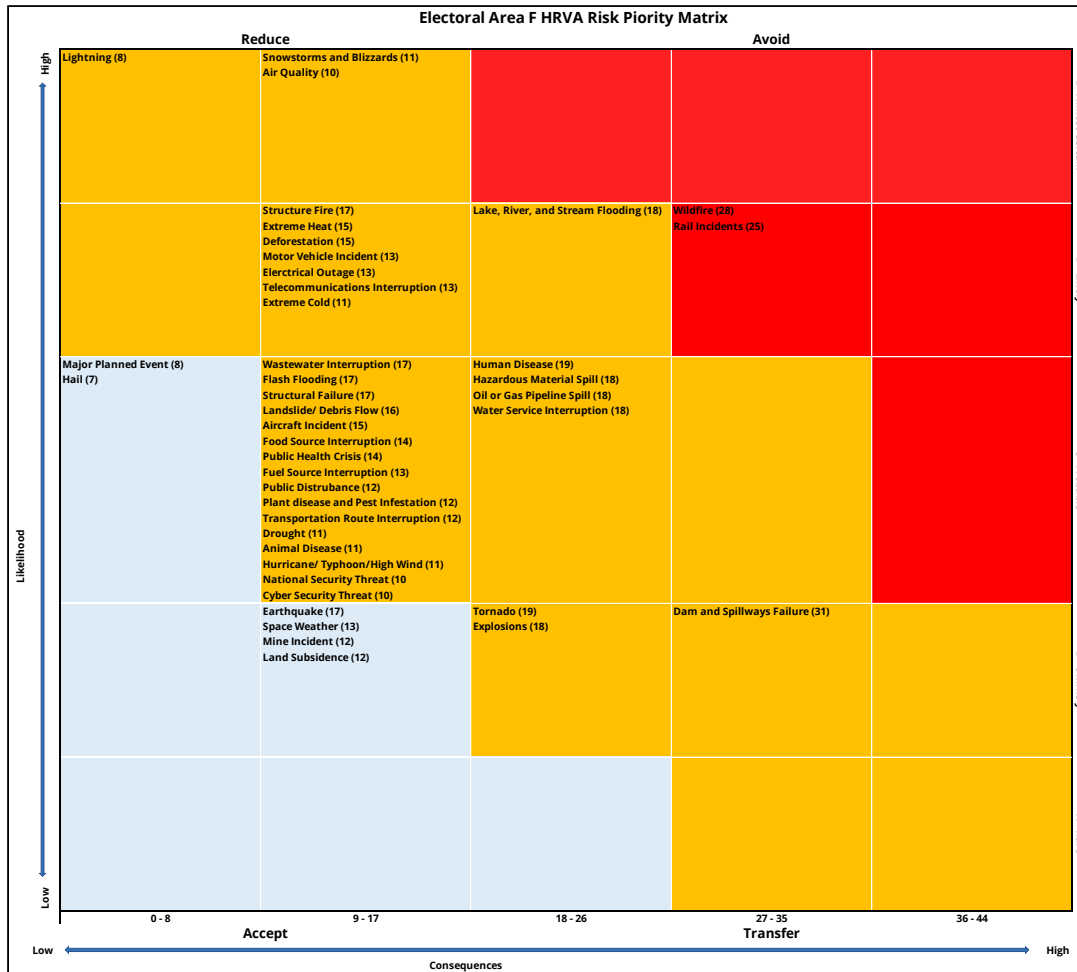
0- None	1 - Low	2 - Medium	3 - High	4 - Extreme
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➤ Here is a visual breakdown of the total scores for the Consequence Scoring, based on the 11 sub-categories, which were totaled and into are reflected in the consequence stacking table.



Hazard Matrix

Here are the results shown in the Hazard Risk Matrix.

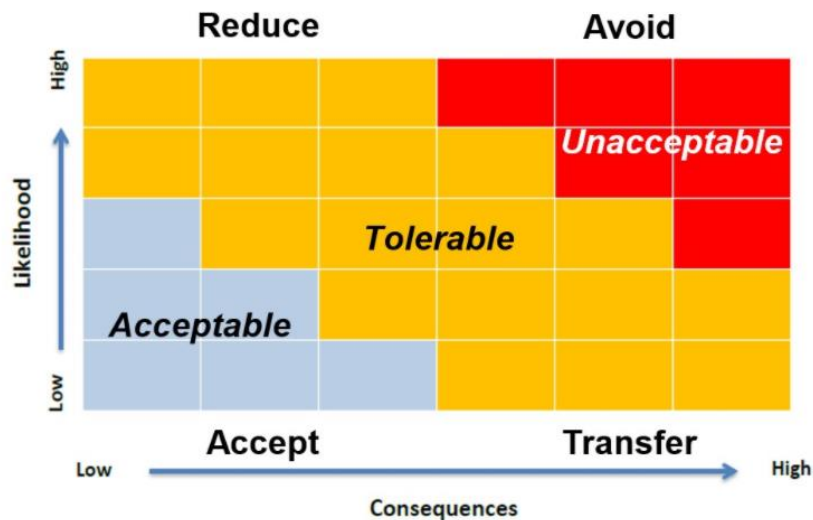


Comments/Questions:

- Deborah, was there any surprises with these results?
 - There were no surprises, I thought the Dam and Spillway Failure would have been a higher ranking.
 - The Dam was equivalent in consequences to Wildfire, with Rail Incidents following.
 - The fact that they are likely is good but could be almost certain to happen.
- When you see numbers sequentially, is there a large gap between 18 that puts you in moderate, 25 that puts this in high is there a chance of prejudice because the number is a couple of numbers out?
 - When looking at the matrix the priority for planning, preparedness and mitigation would be in the upper mid area (Structure Fire, Lake, River and Stream Flooding, wildfire, and rail incidents). These could have an impact in different ways. Wildfire would have a big impact, having residents engage in the FireSmart program would help to reduce the risk. By having residents FireSmart their properties this would help with the mitigation.
 - With Rail Incidents, advocating to have better response mechanisms in our areas would be a risk reduction effort.
 - Lakes, River, and Stream Flooding, we are already working with Rio Tinto, monitoring the levels regularly. Rio Tinto can mitigate the levels to a point, however,

the RDBN may be able to advocate to the province to investigate risk reduction efforts they could put into place.

Resiliency Strategies



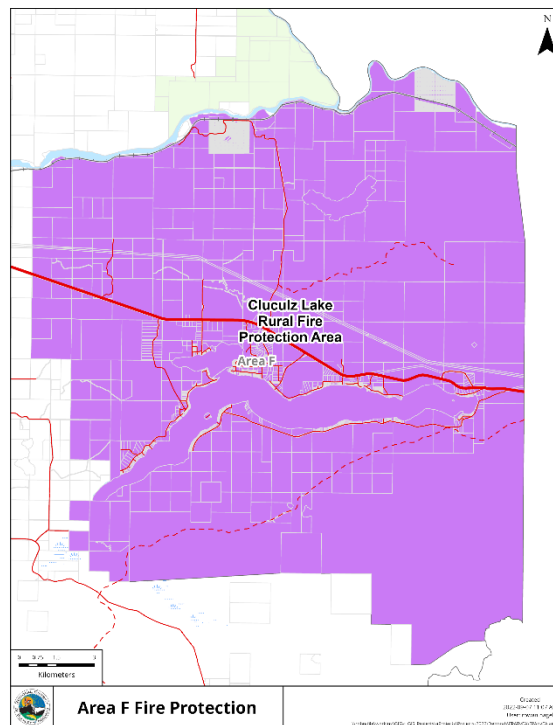
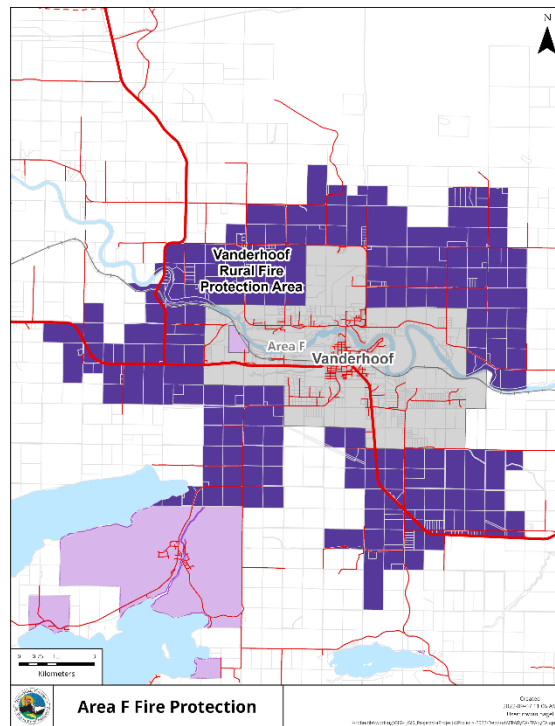
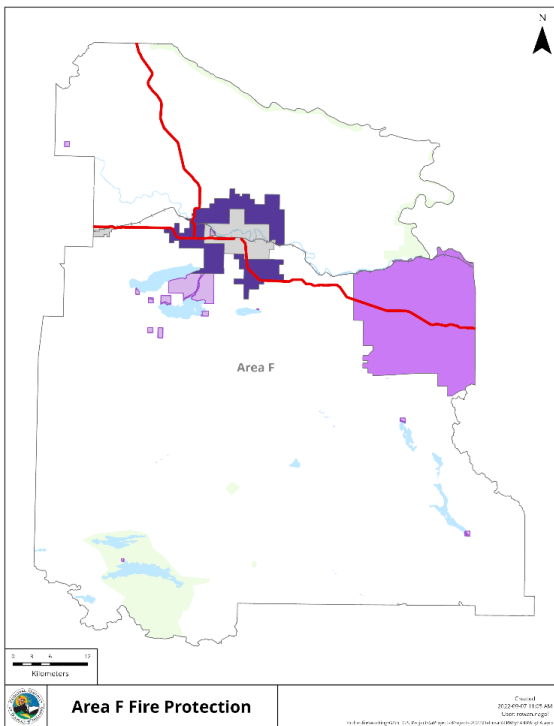
- Going back to the idea of how we use the Hazard Matrix when looking for Resiliency Strategies, the highest priority Risk Reduction Ideas would be for the Unacceptable and Tolerable hazards. Strategies can include ways to reduce the risk, avoid the risk or transfer the risk.

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:

- FireSmart Program.
- The Cluculz Lake and District of Vanderhoof Rural Fire Protection Service Areas are an example of a strategy providing Fire Protection to a specified area of the Electoral Area.
- Provincial Wildland Urban Interface Fuel Management Program.
- Saik'uz Community Wildfire Protection Plan
- District of Vanderhoof Flood Plain Management Bylaw.
- Nechako Reservoir Dam Emergency Plan.



Comments/Questions:

- The Northwest Invasive Plant Council Weed Removal Homeowner rebate is up to \$750 now, not \$500.
- Was there CN represented on this committee?
 - CN was invited to participate but declined to participate in these meetings.
 - We will be reaching out to CN with the results as rail was a determined to be a concern in all electoral areas.

- Is there availability for a fire trailer in the areas outside of protective areas?
 - The Regional District could advocate to BC Wildfire Service to have training and supplies in place.
 - Currently the Cheslatta First Nation Community on the Southside purchased 9 equipped (fire) trailers along with some training on the equipment for the community to use.
 - A good strategy would be for the Regional District to advocate for these trailers to be put into place with the province.
 - Fire Warden program will be discussed at the provincial level next week in Victoria.
- Once the drafted report is complete, does the RD Elected Director consider how this is funded and implemented?
 - The staff would review the work plans and measure the importance of each of the risk reduction ideas presented. Staff would also see what funding opportunities there may be other than taxation.
 - These are two great steps in the process, advocacy by the RD to change policy/practice by those who are creating risk.
 - Advocacy does take time by staff and directors, it is not as intense as writing the whole plan or program in place, advocacy is an important part of what the RDBN Board does.
- The report looks great, it was concise and easy to understand.

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, or avoid risks? Where are the opportunities.

Next Steps

- Return completed Risk Reduction Measure Form by **Wednesday October 12 by 4:30 pm.**
- The RDBN will be hosting a lunch or dinner once the draft HRVA is completed and will present the document to the committee.