



APPENDIX E

1. Hazard Analysis Method

The following method provides a quantitative aid to compare relative hazard risks¹. It does not predict the occurrence of a particular hazard, rather it provides hazard "score" useful for examining multiple hazards borough-wide.

Steps:

1. Multiply the "severity rating" by the "factor weight". This provides a subscore for each factor (history, vulnerability, maximum threat and probability).
2. Total subscores for each factor. This provides a total score for that hazard.
3. Compare total scores for all hazards to prioritize mitigation actions among hazards

History (factor weight = 2)

The record of occurrences of previous disasters or events.

Severity Rating

Low	0-1 event per 100 years	1 point
Moderate	2-3 events per 100 years	5 points
High	4 + events per 100 years	10 points

Vulnerability (factor weight = 5)

The percentage of population and property that is at obvious risk to each hazard.

Severity Rating

Low	<1 % affected	1 point
Moderate	1-10 % affected	5 points
High	>10 % affected	10 points

Maximum Threat (factor weight = 10)

The maximum percentage of population and property that could be impacted by a particular hazard.

Severity Rating

Low	<5 % affected	1 point
Moderate	5-25 % affected	5 points
High	>25 % affected	10 points

Probability (factor weight = 7)

The number of occurrences of each hazard in the past 100 years and the factors that have contributed to increase or decrease risk for the area involved.

Severity Rating

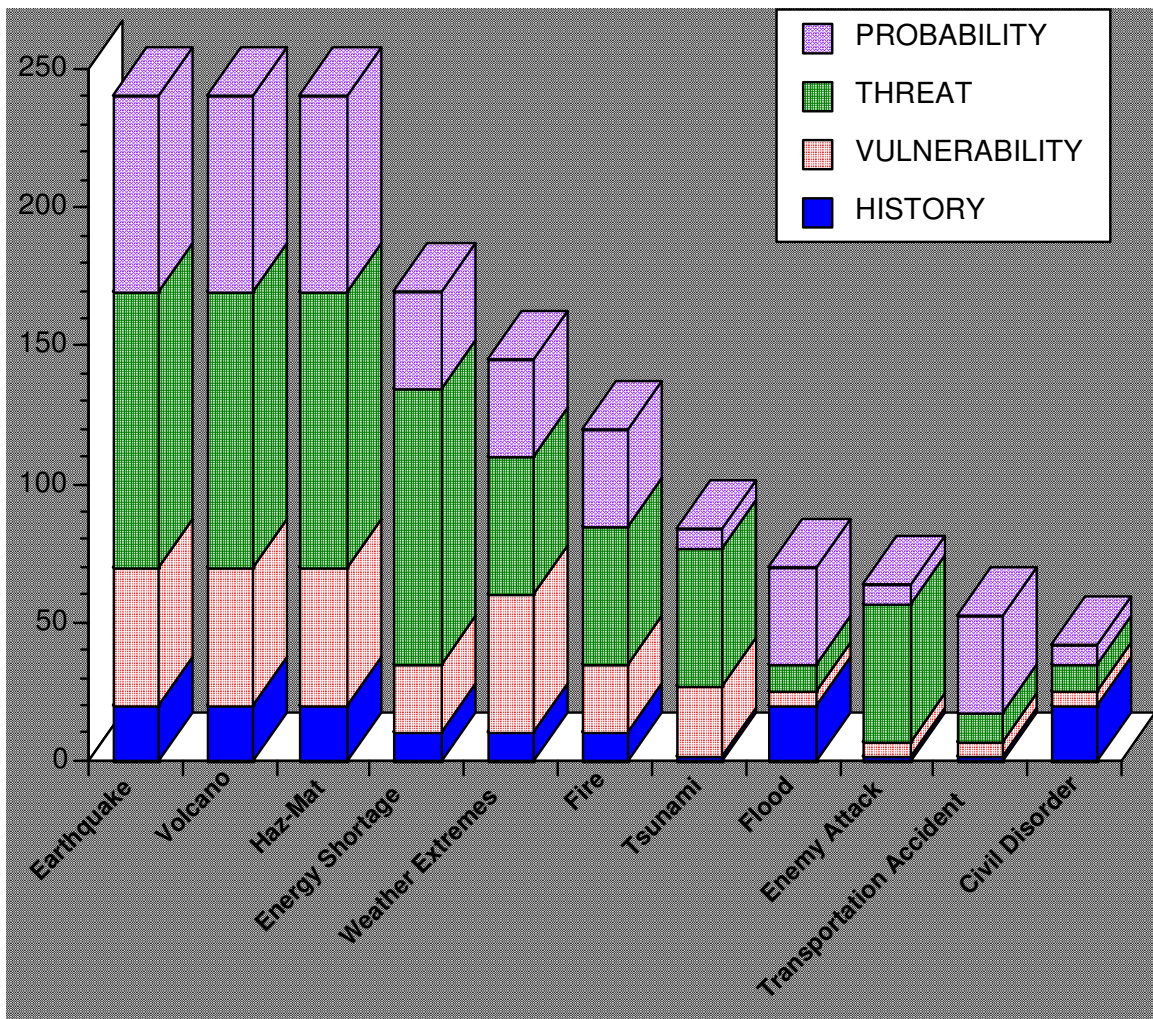
Low	>1 event per 100 years	1 point
Moderate	>1 event per 50 years	5 points
High	>1 event per 10 years	10 points

¹ Both the methods and calculations are from the Kenai Peninsula Borough, Office of Emergency Management – *Emergency Response Plan* (OEM 2004).



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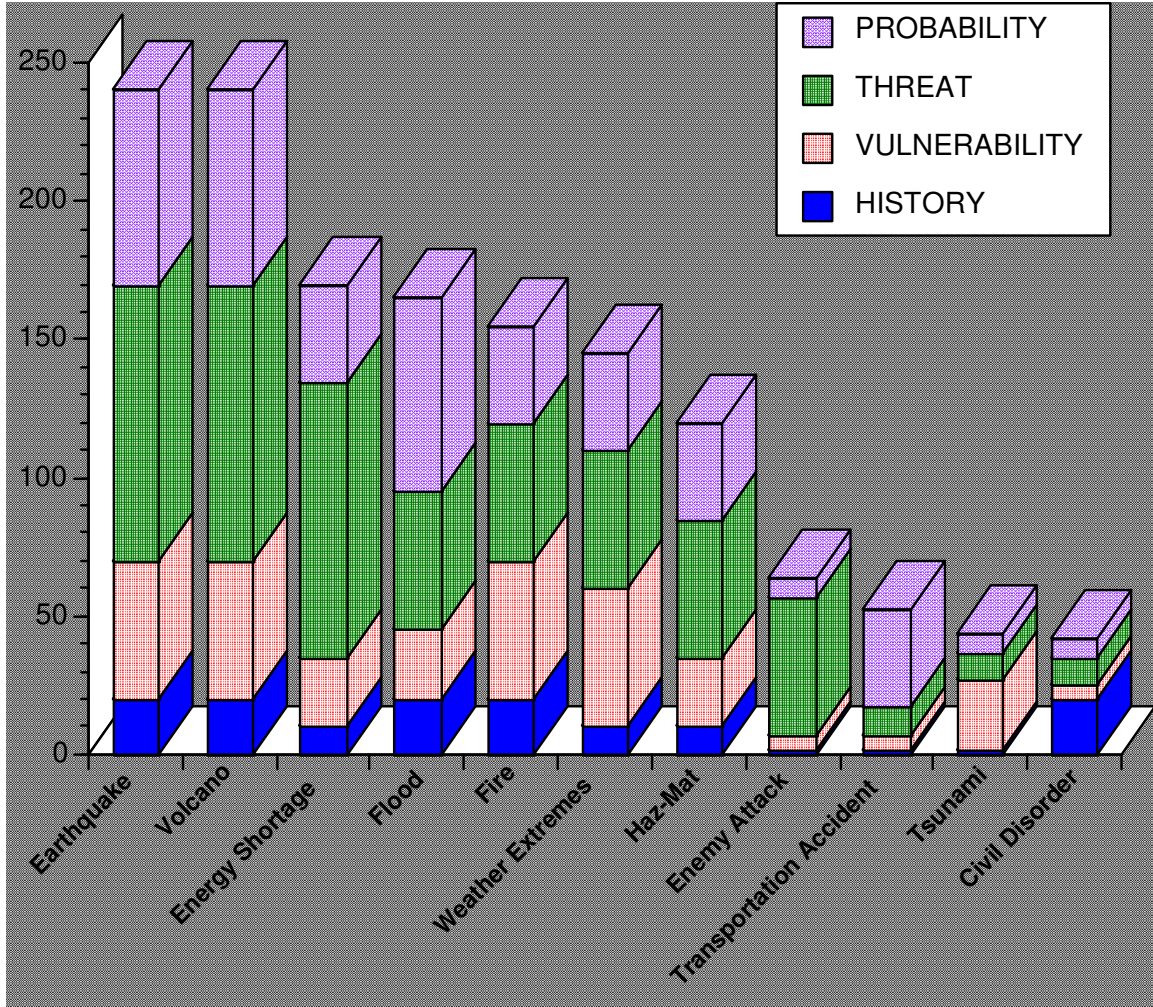
2. North Zone Hazard Analysis Chart (From: 2004 in prep. Kenai Peninsula Borough Emergency Response Plan).





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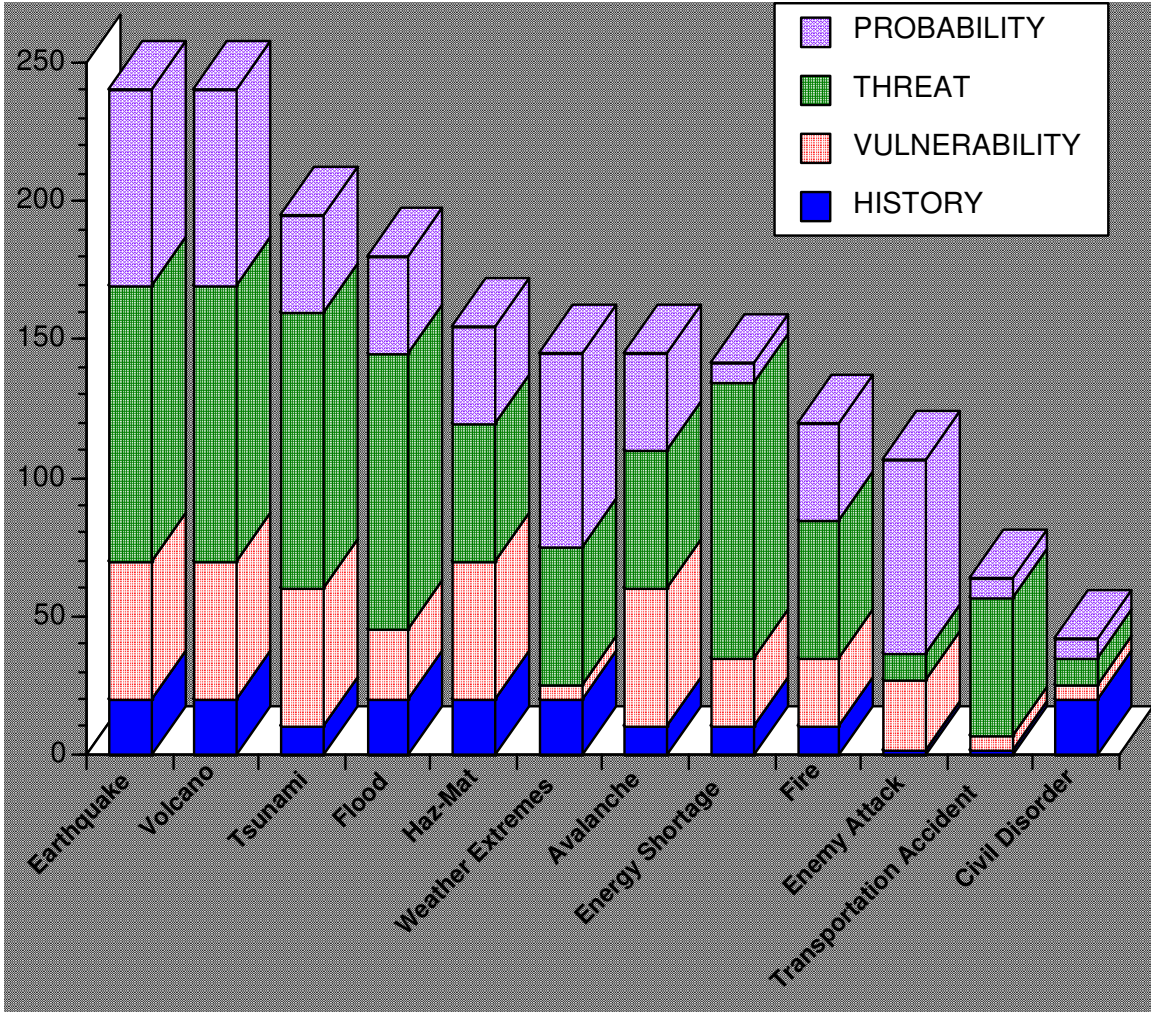
3. Central Zone Hazard Analysis Chart (From: 2004 in prep. Kenai Peninsula Borough Emergency Response Plan).





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4. East Zone Hazard Analysis Chart (From: 2004 in prep. Kenai Peninsula Borough Emergency Response Plan).





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5. South Zone Hazard Analysis Chart (From: 2004 in prep. Kenai Peninsula Borough Emergency Response Plan).

