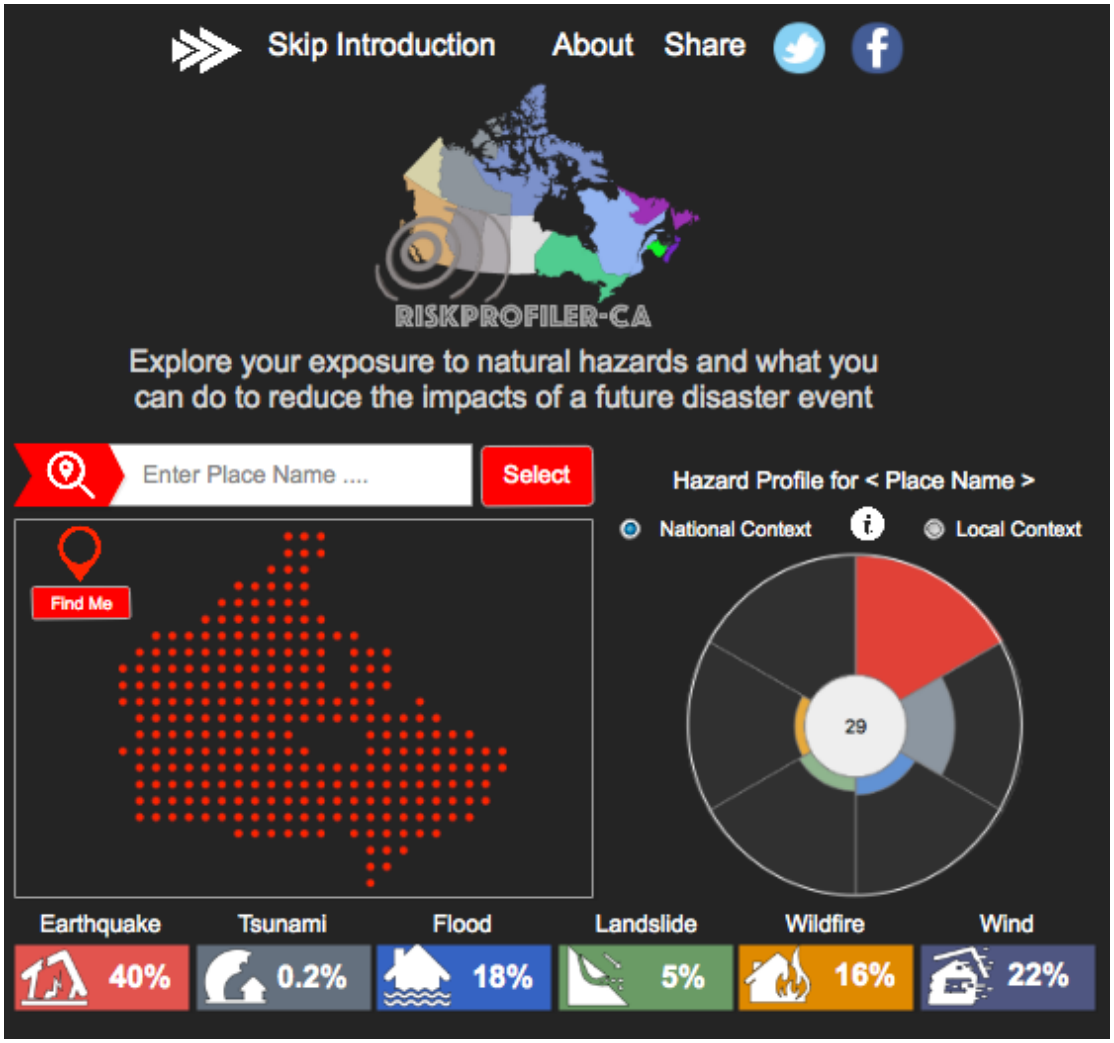
Select Location of Interest



Use Case: Select Location of Interest
Description: User explores their susceptibility to natural hazards for a selected location of interest. The ***Map*** shows geographic reference features for the region of interest. The accompanying ***Aster Plot*** and ***Tabs*** show the relative proportions of people exposed to earthquake, tsunami, flood, landslide, wildfire and wind hazards for the selected region of interest.
Primary Actors: Resident, Small Business Owner, Visitor
Secondary Actors: Seismic Engineer, Risk Analyst , Emergency Manager, Planner
Preconditions: Map is zoomed out to the full extent of Canada. Aster Plot shows the relative proportion of people exposed to hazards of concern in Canada. Tabs report the percentage of people exposed to individual hazards (scaled by total population exposed to all hazards).

Main Flow:

1. User types in place name in search box and clicks select button OR
2. User clicks on 'Find Me' button to activate geolocation services

Postconditions:

1. Base map is loaded for location of interest
2. Aster Plot proportions are calculated based on map extent for location of interest
3. Hazard profile tab percentage values are calculated based on map extent for location of interest

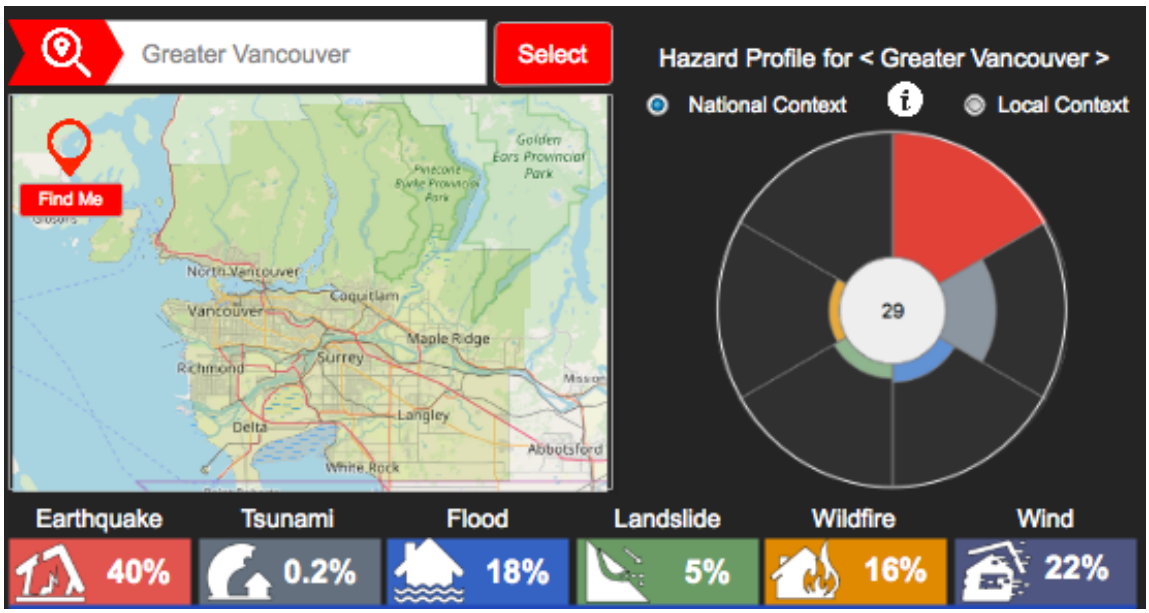
Alternative Flows:

1. User clicks on 'Skip Intro' button to launch main RiskProfiler.ca application

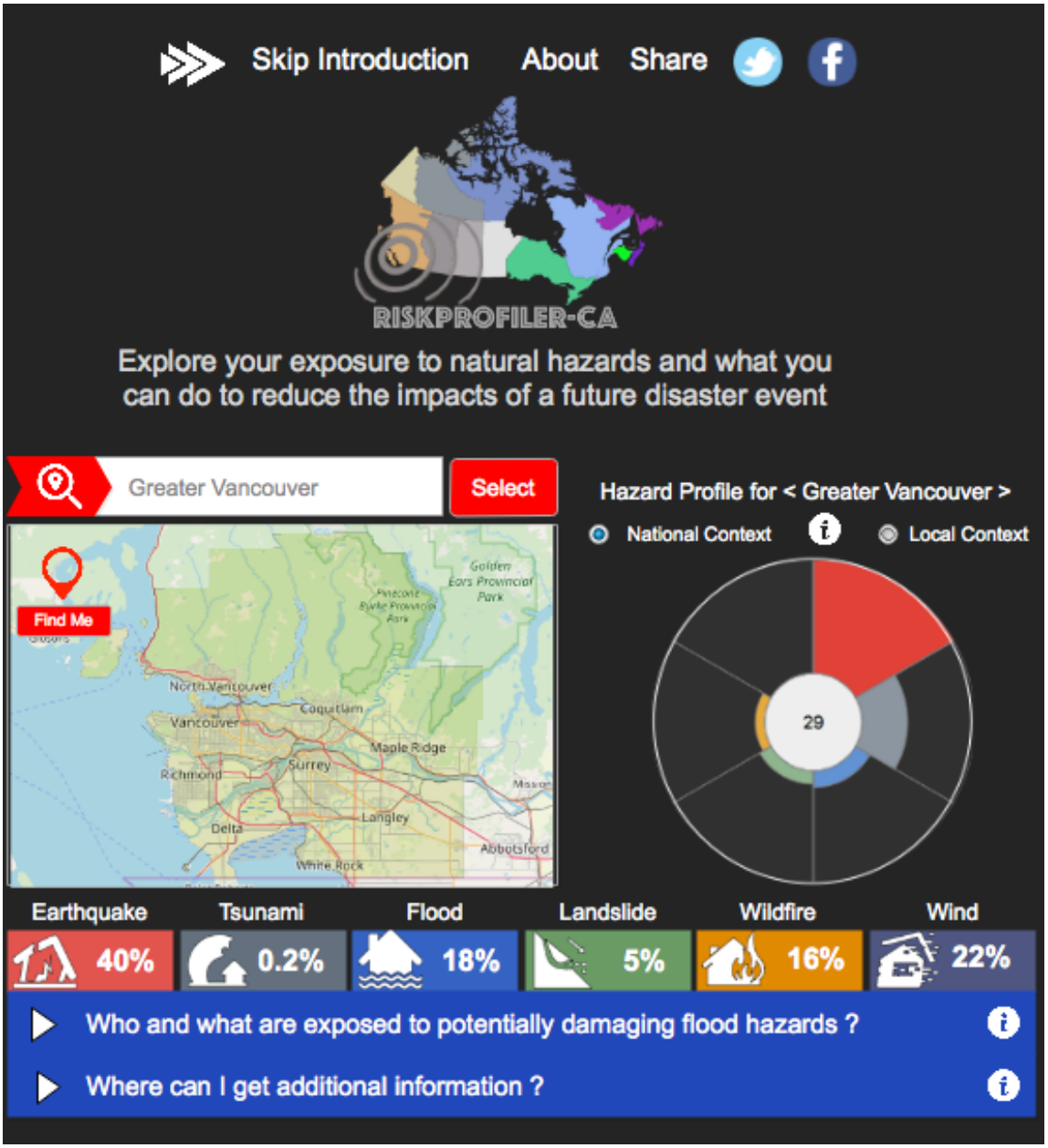
Indicators for Aster Plot and Hazard Card Summary

(See updated tables which provide pre-computed vales that have been aggregated for all Census geometries (SAUID, ADAUID, CSDUID and CDUID)

Indicator	National Context	Local Context
Earthquake	MMI7_Pop/ TOTAL MMI7_Pop for Canada	MMI7_Pop/ MH_Pop for region of interest
Tsunami	Tsun_Pop/ TOTAL Tsun_Pop for Canada	Tsun_Pop/ MH_Pop for region of interest
Flood	Fl500_Pop/ TOTAL Fl500_Pop for Canada	Fl500_Pop/ MH_Pop for region of interest
Landslide	LndSus_Pop/ TOTAL LndSus_Pop for Canada	LndSus_Pop/ MH_Pop for region of interest
Wildfire	Fire_Pop/ TOTAL Fire_Pop for Canada	Fire_Pop/ MH_Pop for region of interest
Wind	Cy500_Pop/ TOTAL Cy500_Pop for Canada	Cy500_Pop/ MH_Pop for region of interest



Select Hazard of Interest



2) Explore Hazard Profile (all hazards)

Use Case: Select Hazard of Interest
Description: User selects hazard of interest to get information on who and what are affected and where to get additional information on how to reduce potential impacts of future hazard events. Additional information on expected impacts and consequences and potential for disaster risk reduction is available for earthquake hazards only.
Primary Actors: Resident, Small Business Owner, Visitor

Secondary Actors: Seismic Engineer, Risk Analyst , Emergency Manager, Planner

Preconditions: Map is zoomed to the location of interest. Aster Plot shows the relative proportion of people exposed to hazards of concern for location of interest. Tabs report the percentage of people exposed to individual hazards (scaled by ontext) for location of interest.

Main Flow:

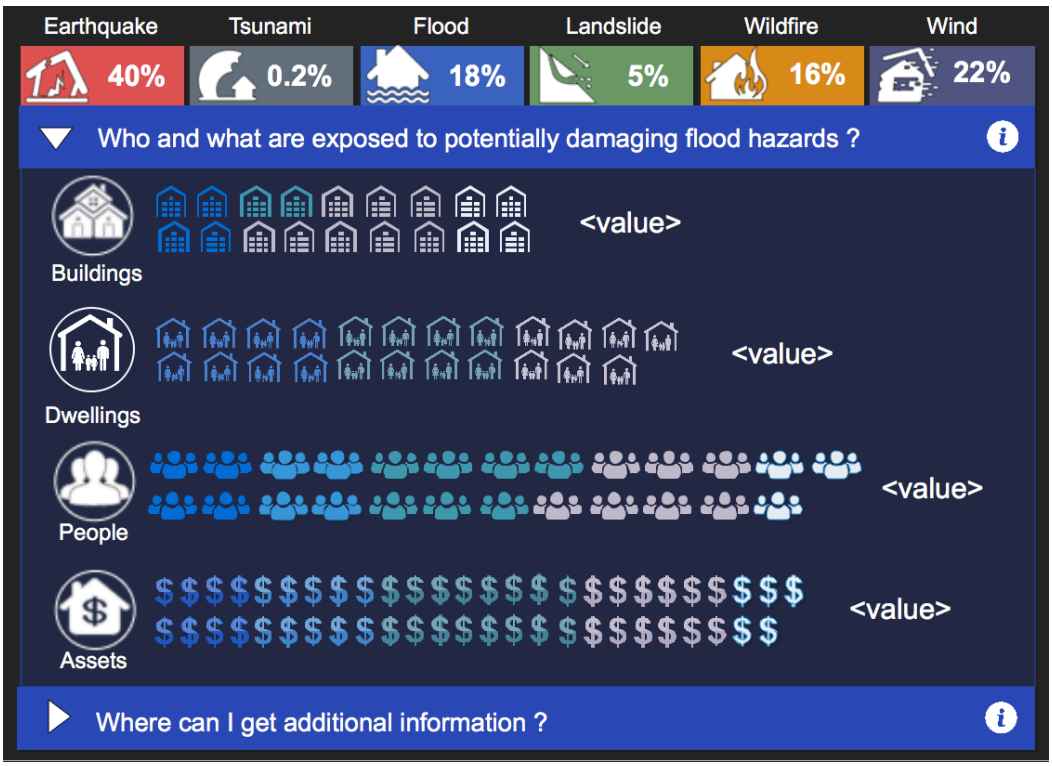
1. User selects hazard of interest from Aster Plot OR Hazard Tabs
2. User selects '*Who and what are exposed to potentially damaging impacts of <type> hazards?*'
3. For earthquakes, user selects '*What can I expect in the event of a damaging earthquake?*'
4. User selects '*Where can I find additional information ?*'

Postconditions:

1. Accordion tabs are displayed with relevant questions for hazard of interest.
2. Bar charts for selected hazard show
    - **A)** Number of buildings affected by selected hazard
    - **B)** Number of people affected by selected hazard
    - **C)** Value of capital assets affected by selected hazard ($CDN)
3. Additional bar charts for earthquake hazards only show
    - **A)** Building Damage (beyond repair; collapse) - baseline, scenario1 and scenario2 conditions
    - **B)** Injuries (critical injuries; fatalities) - baseline, scenario1 and scenario2 conditions
    - **C)** Displaced People (> 30 days; > 180 days) - baseline, scenario1 and scenario2 conditions
    - **D)** Economic Losses (Building;Structural - baseline, scenario1 and scenario2 conditions
4. Catalog listing for selected hazard,
    - **A)** Source, short description of resource and URL hyperlink

Alternative Flows:

1. User clicks on 'Explore' button to launch main RiskProfiler.ca application for selected location and hazard of interest



Indicator	2A) Buildings	2B) Dwellings	2C) People	2D Assets
Earthquake	MMI7_Bldg	MMI7_DU	MMI7_Pop	MMI7_Assets
Tsunami	Tsun_Bldg	Tsun_DU	Tsun_Pop	Tsun_Assets
Flood	Fl500_Bldg	Fl500_DU	Fl500_Pop	Fl500_Assets
Landslide	LndSus_Bldg	LndSus_DU	LndSus_Pop	LndSus_Assets
Wildfire	Fire_Bldg	Fire_DU	Fire_Pop	Fire_Assets
Wind	Cy500_Bldg	Cy500_DU	Cy500_Pop	Cy500_ssets

(See updated tables which provide pre-computed vales that have been aggregated for all Census geometries (SAUID, ADAUID, CSDUID and CDUID)

3) Explore Risk Profile

(earthquakes only)

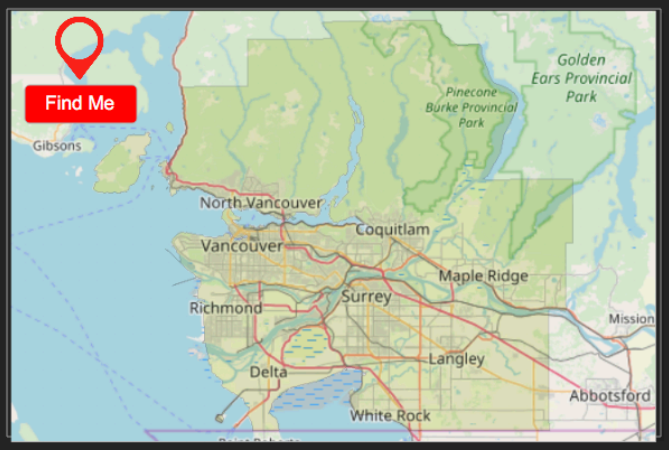
NB: *use **CSZM9p0** rupture for proof of concept. Will replace with national level probabilistic earthquake risk metrics when available in late January*

Indicator		Baseline	Scenario1	Scenario2
3A) Damage	Yellow Tag	[sd_Moderate	[sd1_Moderate	[sd2_Moderate
	Red Tag	[sd_Extensive] + [sd_Complete]	[sd1_Extensive] + [sd1_Complete]	[sd2_Extensive] + [sd2_Complete]
3B) Injury	Critical	[sc_CasNitL3]	[sc1_CasNitL3]	[sc2_CasNitL3]
	Fatality	[sc_CasNitL4]	[sc1_CasNitL4]	[sc2_CasNitL4]
3C) Displacement	> 30 Days	[sc_Displ30]	[sc1_Displ30]	[sc2_Displ30]
	> 180 Days	[sc_Displ180]	[sc1_Displ180]	[sc2_Displ180]
3D) Loss	Building	[sl_BldgT]	[sl1_BldgT]	[sl2_BldgT]
	Structural	[sl_Str]	[sl1_Str]	[sl2_Str]

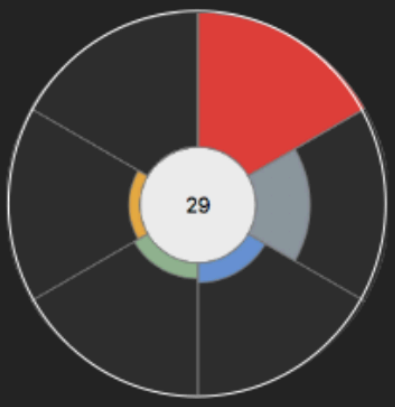
Enter Place Name ....

Select

Hazard Profile for < Place Name >



National Context Local Context



Earthquake	Tsunami	Flood	Landslide	Wildfire	Wind
40%	0.2%	18%	5%	16%	22%

▷ Who and what are exposed to potentially damaging earthquake hazards?

▽ What can I expect in the event of a damaging earthquake?

Damage

Yellow Tag <value>

Red Tag <value>

Injuries

Critical <value>

Fatalities <value>

Displacement

> 30 Days <value>

> 180 Days <value>

Losses

Building <value>

Structural <value>

Risk Reduction Potential With Level 1 Seismic Retrofit Measures With Level 2 Seismic Retrofit Measures

▷ Where can I get additional information ?