

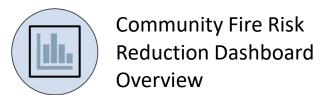
Community Fire Risk Reduction Dashboard Enhancement Project





Presentation Overview



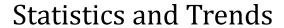






Key Points

- All questions, responses and insights shared today will be collected and compiled into a report which will transform the project's future.
- We would appreciate your feedback and recommendations on how to enhance the Community Fire Risk Reduction Dashboard for your use.





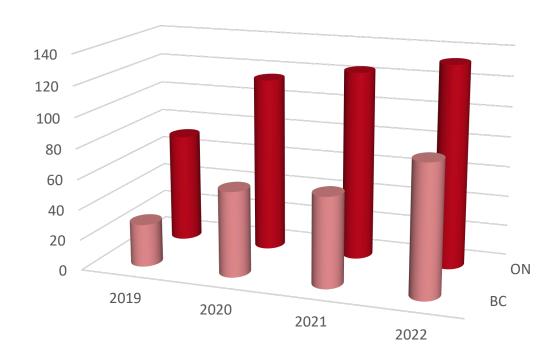
Ontario Fire Deaths increase by 85%

- 2019 = 72 Fire Deaths
- 2020 = 115 Fire Deaths
- 2021 = 124 Fire Deaths
- 2022 = 133 Fire Deaths

British Columbia Fire Deaths increase by 207%

- 2018 = 28 Fire Deaths
- 2019 = 28 Fire Deaths
- 2020 = 56 Fire Deaths
- 2021 = 59 fire Deaths
- 2022 = 86 Fire Deaths

BC and ON Fire Deaths





Ontario Fire Deaths

Location

Most fire-related deaths were in the home 92%

Leading Cause

Cooking, smoking, open flame

Prevention

- Working smoke alarms
 - Only 37% of reported residential structure fires had a working smoke alarm
- Public education efforts, particularly for youth and older adults.



The Daily — Circumstances surrounding unintentional fire-related deaths, 2011 to 2020 (statcan.gc.ca)





Why is data important for fire prevention?

- 1. Shows trends
- 2. Informs decision making
 - Drives policy and operational guidance
 - Supports fire services in making operational decisions (staffing, resources, etc.)
 - Prevents injuries and saves lives
 - Supports continuous improvement

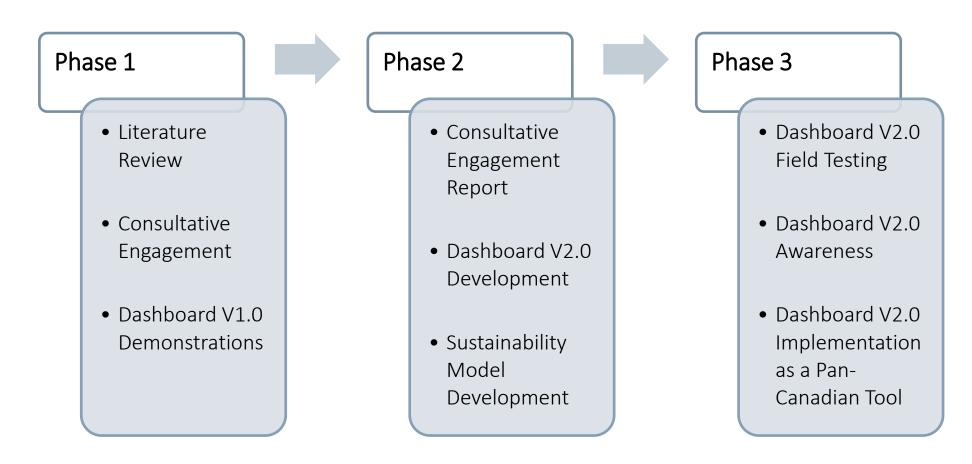
COMMUNITY FIRE RISK REDUCTION DASHBOARD

Project Overview

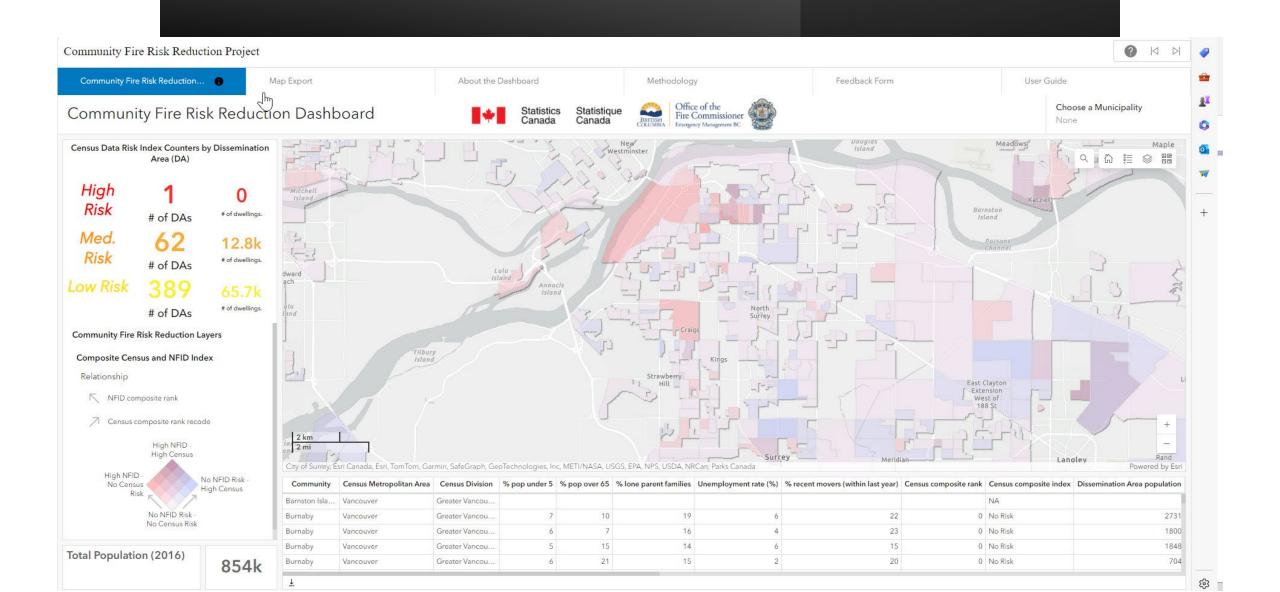


Project Overview

3-year project (1-Jan-2024 through 30-Nov-2026)



Community Fire Risk Reduction Dashboard















Community Fire Risk Reduction Dashboard

This National Fire Information Database (NFID) "Community Fire Risk Reduction Dashboard" is part of a joint project between Statistics Canada and the Ontario Office of the Fire Marshal. This custom demonstration tool uses data from the NFID, the 2021 Census of Population, and the Canadian Index of Multiple Deprivation (CIMD).

The Dashboard is a custom demonstration product developed by Statistics Canada. It is available in English and in French. The Dashboard does not conform to the accessibility standards required for an official publicly disseminated Statistics Canada product.

The Dashboard is intended for fire service professionals as a potential aid to identify fire risk in neighbourhood communities in Ontario. The underlying assumptions [1] link the selected population demographics with fire incident data that form a Composite Index of Residential Fire Risk that may be used to apply known fire risk reduction and prevention treatments. Please see the Methodology section of the Dashboard for more information of the Composite Index for Residential Fire Risk.

Applying the assumptions used in this tool does not guarantee success. However, it has been demonstrated by some fire services to positively influence improvements towards reducing fire rates, deaths, and injuries.

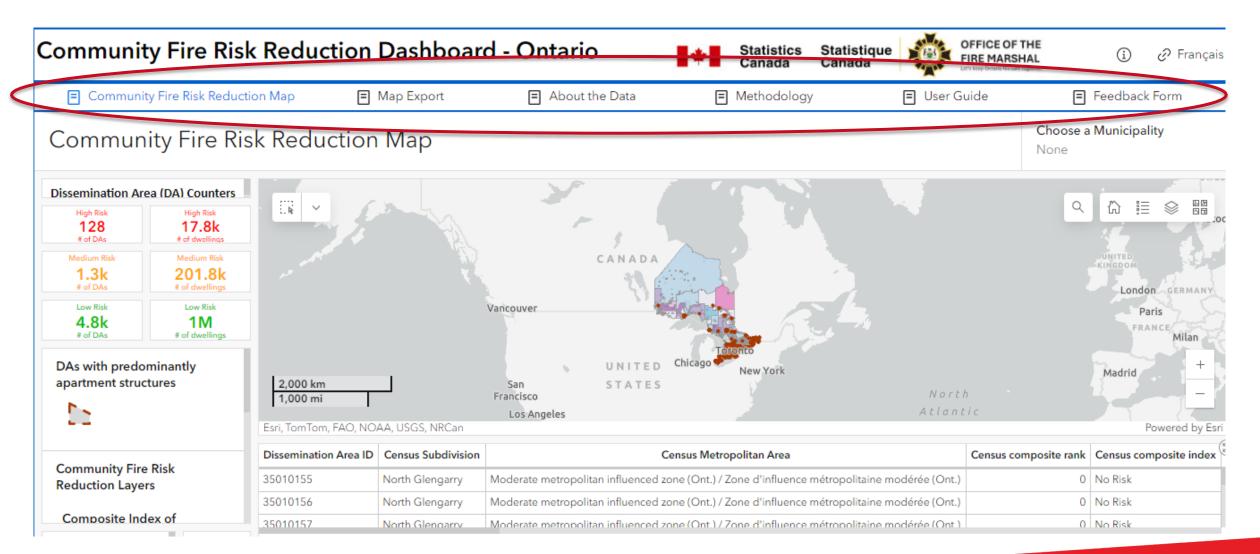
Click 'Explore' to enter the Dashboard and navigate Ontario's composite risk profile information within the different layers.

[1] Clare, J., Garis, L., Plecas, D., & Jennings, C. (2012). Reduced frequency and severity of residential fires following delivery of fire prevention education by on-duty fire fighters: Cluster randomized controlled study. *Journal of safety research*, 43(2), 123-128. https://doi.org/10.1016/j.jsr.2012.03.003

Explore



Six Tabs

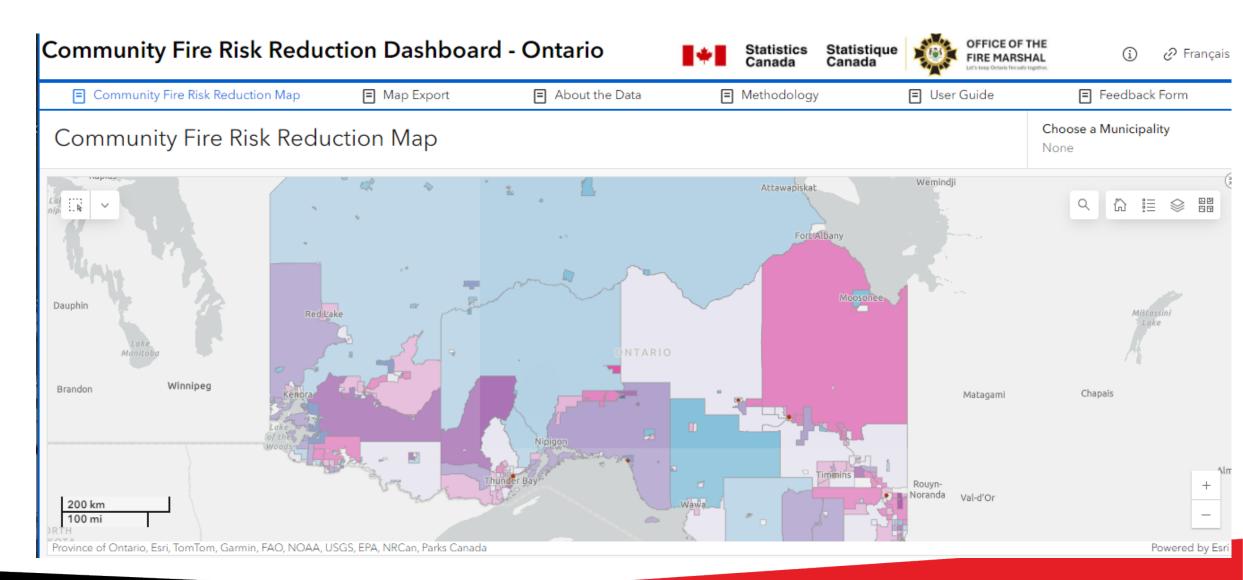




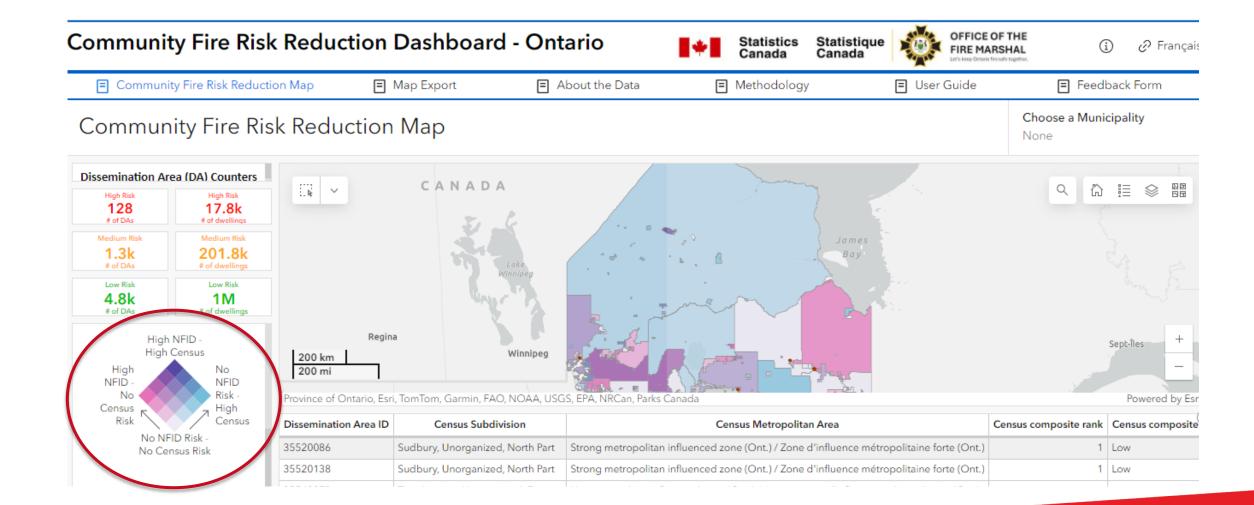
- Helps visualize the spatial patterns of Population Fire Risk Factors;
- Helps visualize possible associations between Risk Factors and Fire Incidence Rates;
- Can ultimately identify target areas for fire prevention programs such as a targeted smoke alarm program.



Population Fire Risk Factors







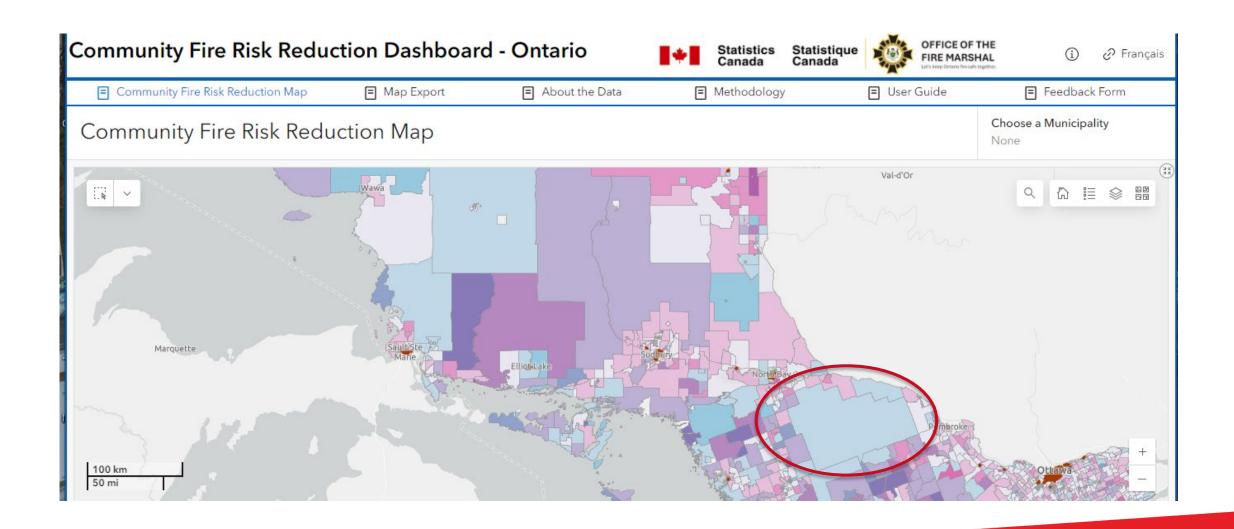


Population Fire Risk Reduction Factors

- Population under the age of 5 (0-4 years of age)
- Population 65 years of age and older
- Lone parent families
- Unemployment rate
- Movers, based on Mobility status of 1 year ago

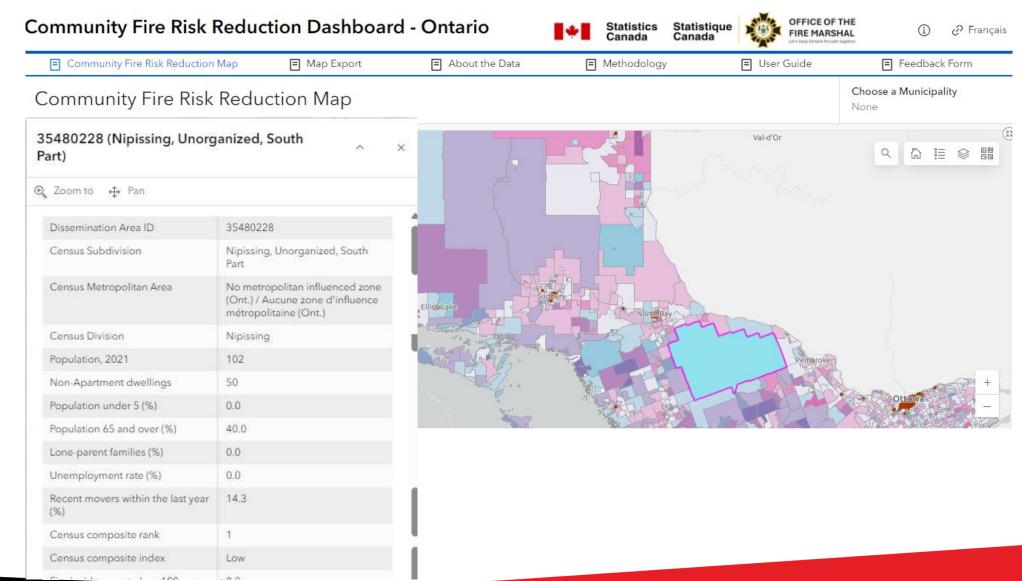


Light Blue area – South of Quebec



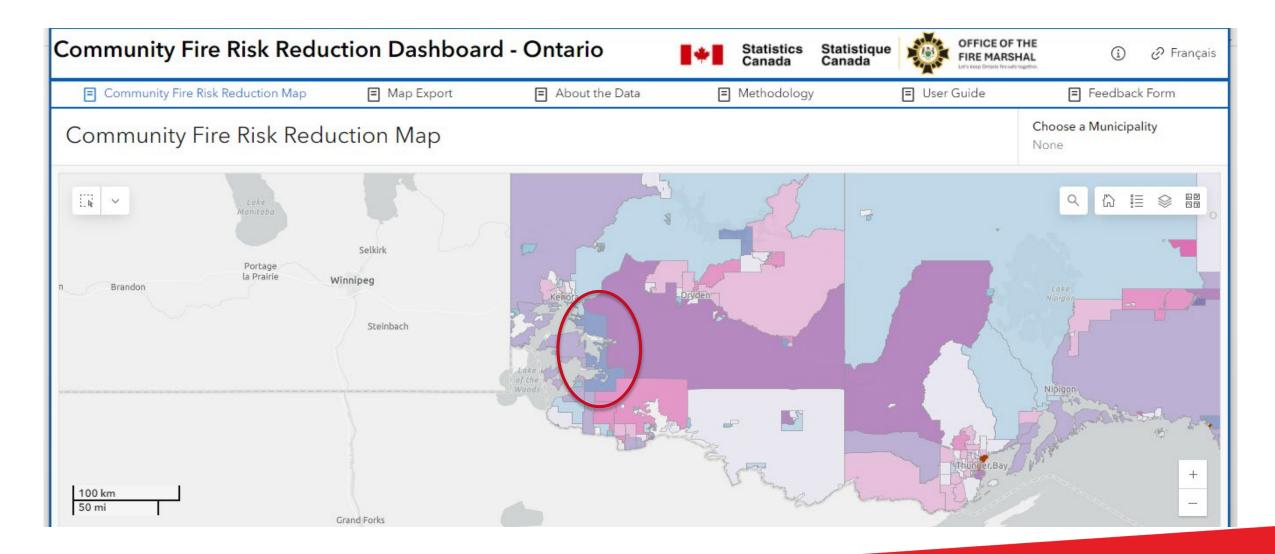


Population Fire Risk Factors





Darker Blue area - Kenora





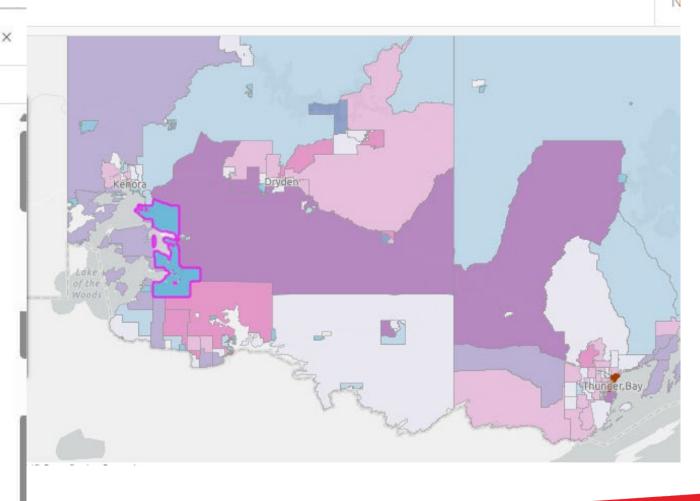
Population Fire Risk Factors

Community Fire Risk Reduction Map

35600408 (Sioux Narrows-Nestor Falls)

⊕ Zoom to ↔ Pan

Dissemination Area ID	35600408
Census Subdivision	Sioux Narrows-Nestor Falls
Census Metropolitan Area	Weak metropolitan influenced zone (Ont.) / Zone d'influence métropolitaine faible (Ont.)
Census Division	Kenora
Population, 2021	727
Non-Apartment dwellings	330
Population under 5 (%)	2.7
Population 65 and over (%)	34.9
Lone-parent families (%)	8.9
Unemployment rate (%)	21.1
Recent movers within the last year (%)	10.0
Census composite rank	2
Census composite index	Medium





National Fire Incidence Data (NFID)

- Fire Incidence Rate
- Fire Casualty Rate
- Rate of non-working smoke alarms





Reduction Dashboard - Ontario



Statistics Canada Statistique Canada



(i)

n Map

Map Export

About the Data

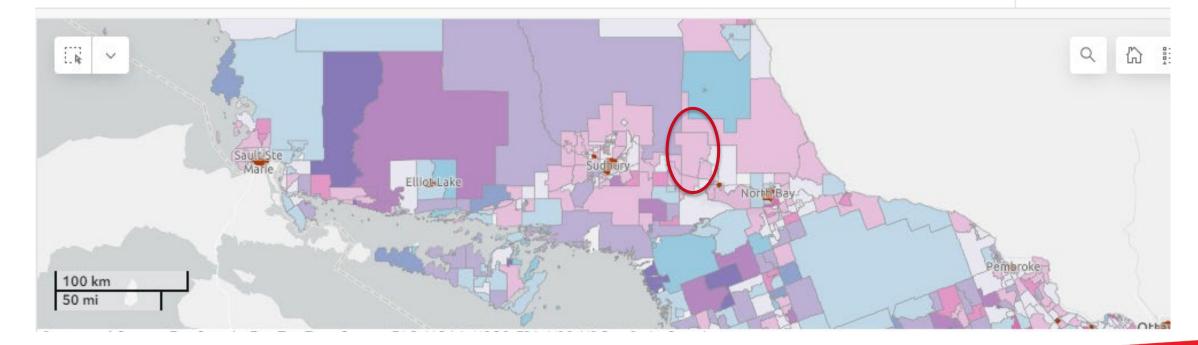
■ Methodology

User Guide

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k Reduction Map

Choose a Municipa None





National Fire Information Database

Community Fire Risk Reduction Dashboard - Ontario



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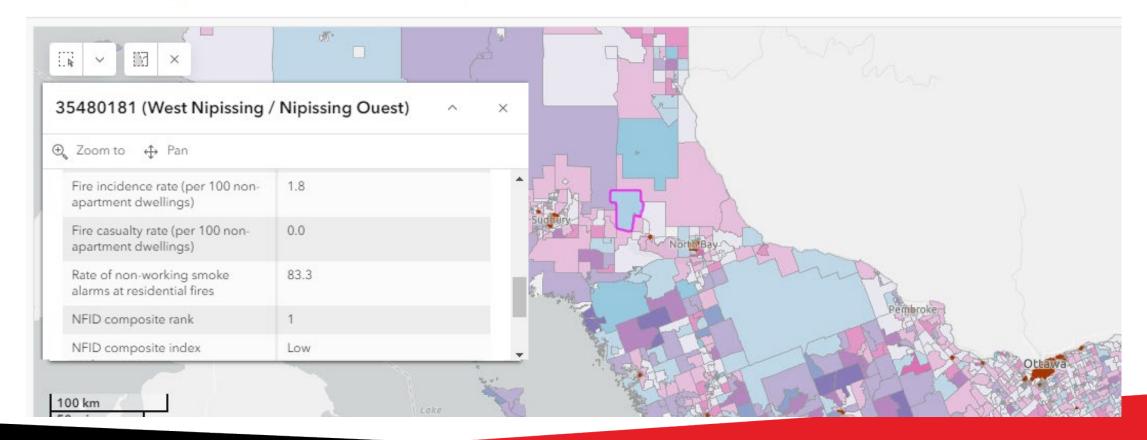


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Community Fire Risk Reduction Map





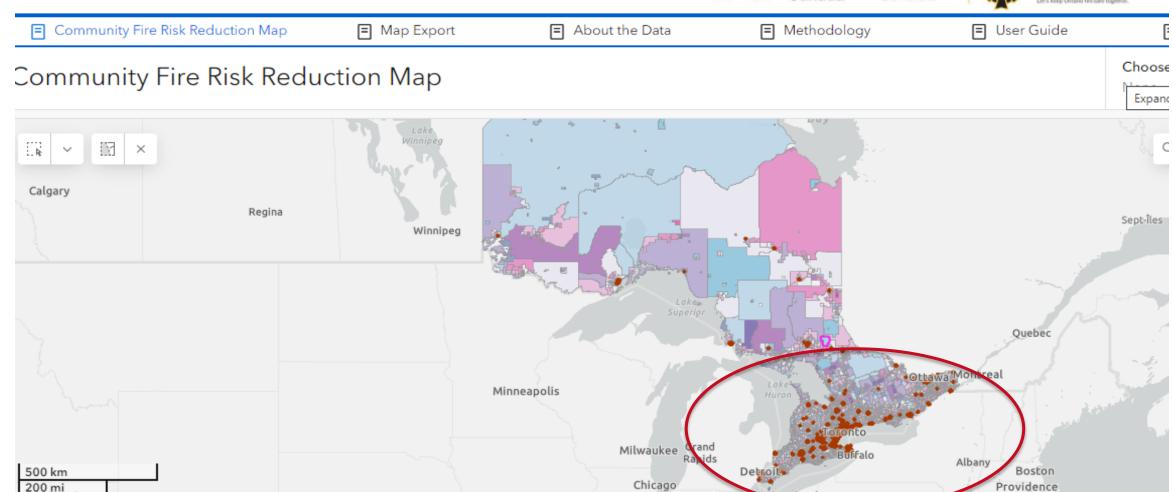
NFID = Pink

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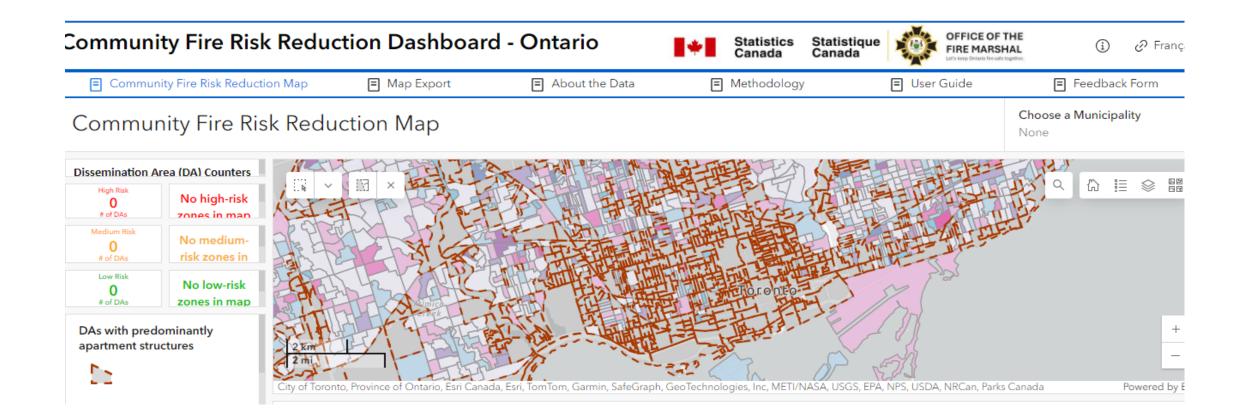
Statistics Canada Statistique Canada



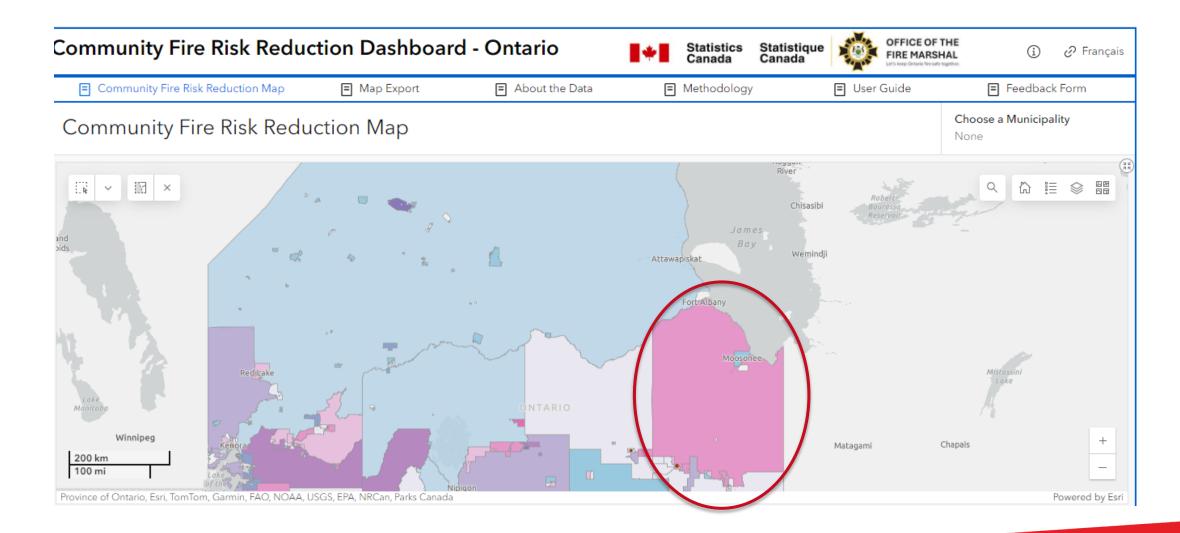




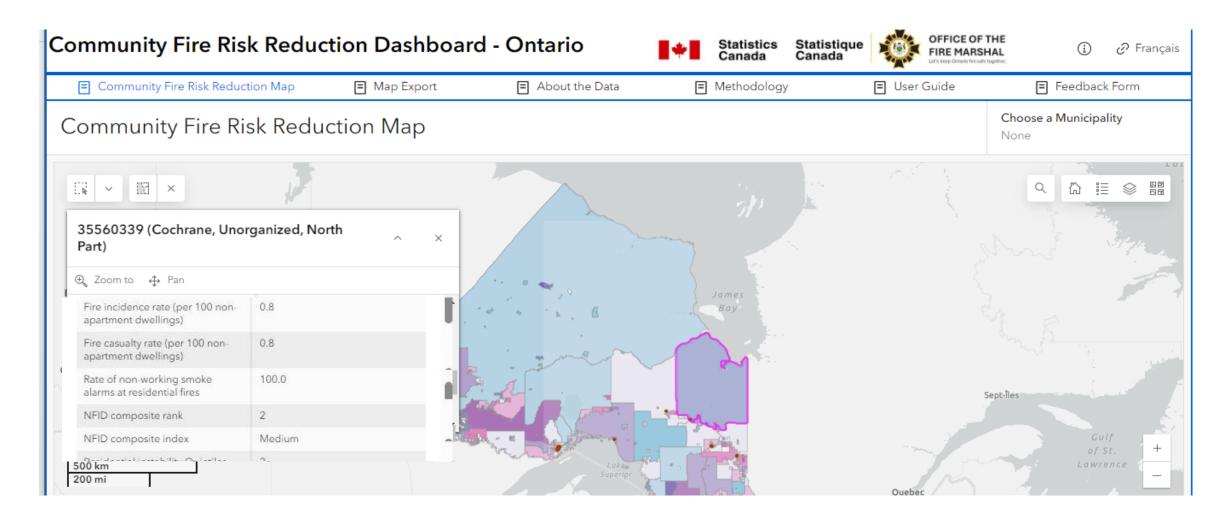
DA's with predominantly apartment structures















The Canadian Index of Multiple Deprivation (CIMD)

- Residential Instability
- Economic Dependency
- Ethno-Cultural composition
- Situational Vulnerability

CIMD

Dissemination Area ID	35520138					OFFICE OF THE		
Census Subdivision	Sudbury, Unorganized, North Part	- Ontario		Statistics Canada	Statistique Canada	FIRE MARSHAL Let's seep Ontario Treasing Engelies.	(i)	∂ Franç
Census Metropolitan Area	Strong metropolitan influenced zone (Ont.) / Zone d'influence métropolitaine forte (Ont.)	ort 🗏 Ak	pout the Data	■ Methodology		■ User Guide	■ Feedback	(Form Municipality
Census Division	Sudbury						None	
Population, 2021	392	\	The same of the sa		3			n = -
Non-Apartment dwellings	190	Lake -					Moosonee	
Population under 5 (%)	2.6		4				pro-	
Population 65 and over (%)	30.8							
Lone-parent families (%)	3.8			ONTARIO				
Unemployment rate (%)	0.0		•	ON TAKE				
Recent movers within the last year (%)	3.0		Lake					
Census composite rank	1	Dryden	Nipigon			Hearst		
Census composite index	Low	D.				Kapuskasing		
Fire incidence rate (per 100 non- apartment dwellings)	0.0		Nipigon	-	Ţ.			
Fire casualty rate (per 100 non- apartment dwellings)	0.0			San		5_		Lake Abitibi
Rate of non-working smoke alarms at residential fires			PhunderBay		.		Timmins	Rouyn- Noranda
NFID composite rank	0	Ia, Esri, TomTom, Garmin, FAO, NOAA, USGS, E	EPA, NRCan, Parks Canada					Powered
NFID composite index	No Risk							
Residential instability Quintiles	1							
Economic dependency Quintiles	2							

Ethno-cultural composition

Situational vulnerability Quintiles 5

Quintiles

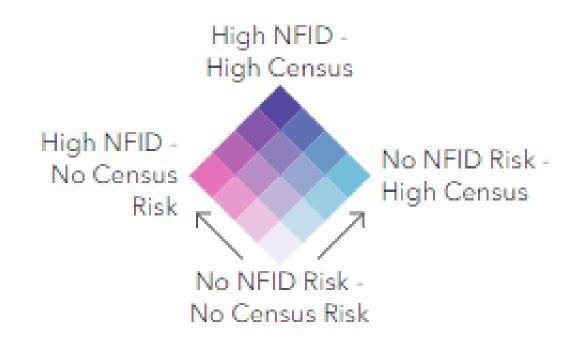


Population Fire Risk Reduction Factors

National Fire Incidence Data

The Combination Areas

Composite Index of Residential Fire Risk Color Chart





Province of Ontario, Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, NRCan, Parks Canada

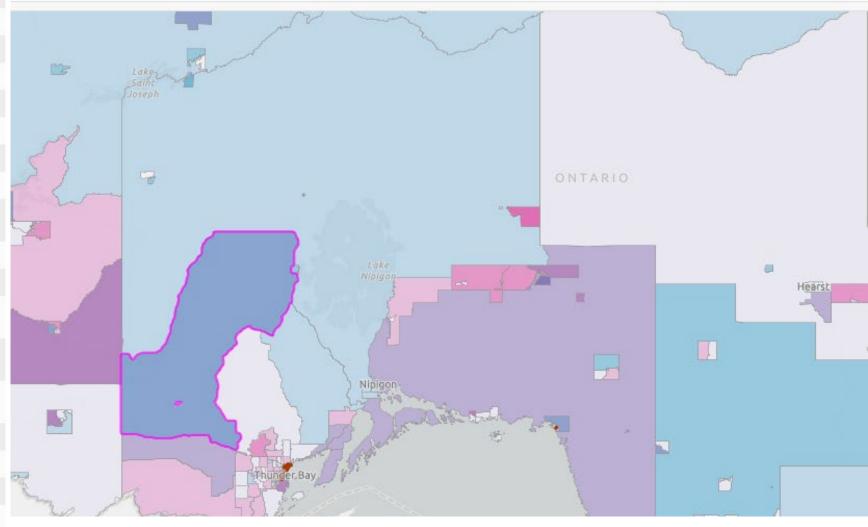
The purple areas

Powered by Esr

OFFICE OF THE Community Fire Risk Reduction Dashboard - Ontario Statistique @ Français FIRE MARSHAL Canada Canada Community Fire Risk Reduction Map ■ Map Export About the Data ■ Methodology User Guide Feedback Form Choose a Municipality Community Fire Risk Reduction Map None □ ~ Moosonee Yorkton Dauphin Red Lake Winnipeg Brandon Chapai Matagami Rouyn-Noranda Val-d'Or 200 km 100 mi

Dissemination Area ID	35520138
Census Subdivision	Sudbury, Unorganized, North Part
Census Metropolitan Area	Strong metropolitan influenced zone (Ont.) / Zone d'influence métropolitaine forte (Ont.)
Census Division	Sudbury
Population, 2021	392
Non-Apartment dwellings	190
Population under 5 (%)	2.6
Population 65 and over (%)	30.8
Lone-parent families (%)	3.8
Unemployment rate (%)	0.0
Recent movers within the last year (%)	3.0
Census composite rank	1
Census composite index	Low
Fire incidence rate (per 100 non- apartment dwellings)	0.0
Fire casualty rate (per 100 non- apartment dwellings)	0.0
Rate of non-working smoke alarms at residential fires	
NFID composite rank	0
NFID composite index	No Risk
Residential instability Quintiles	1
Economic dependency Quintiles	2
Ethno-cultural composition Quintiles	5
Situational vulnerability Quintiles	5

Combination Areas





Community Fire Risk Reduction Layers

Composite Index of

Total

Data Boxes

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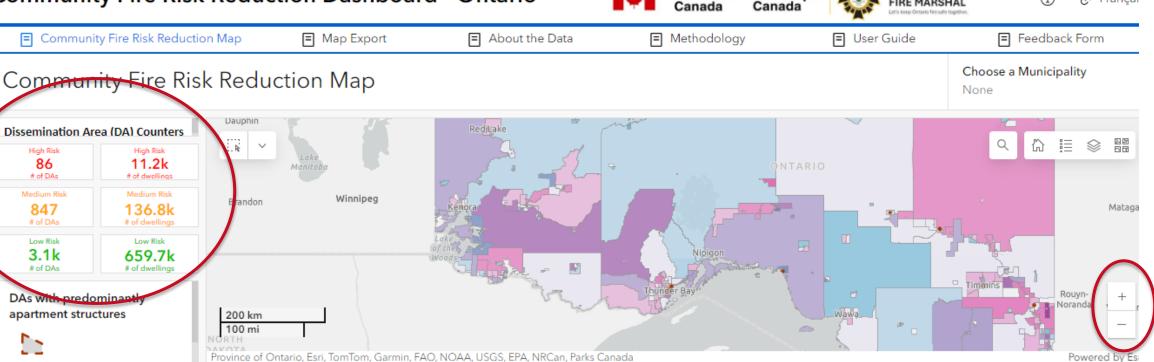
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FIRE MARSHAL

Statistique

Statistics

Community Fire Risk Reduction Dashboard - Ontario



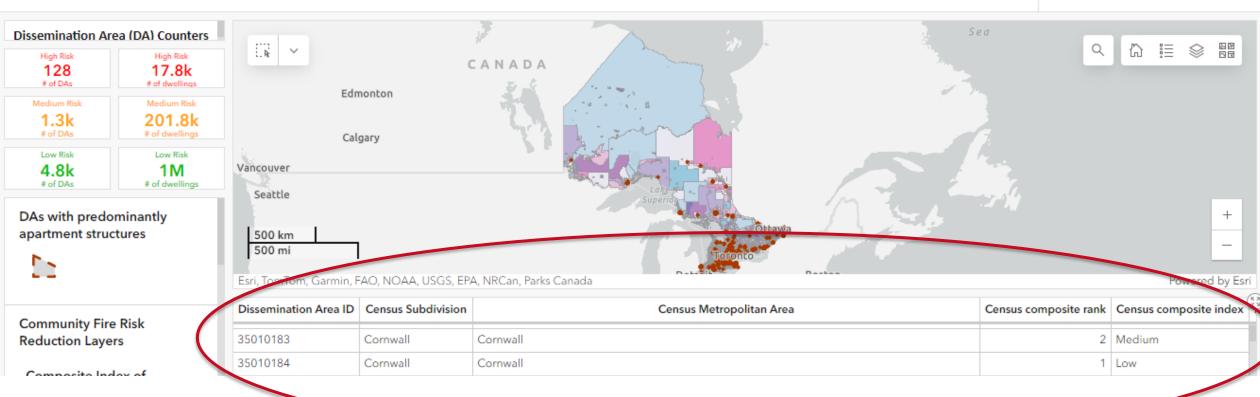
Dissemination Area ID	Census Subdivision	Census Metropolitan Area	Census composite rank	Census composite
35480178	Temagami	Moderate metropolitan influenced zone (Ont.) / Zone d'influence métropolitaine mod	2	Medium
35520082	Mattagami 71	Moderate metropolitan influenced zone (Ont.) / Zone d'influence métropolitaine mod		
35520083	Sudbury Unorganized North Part	Strona metropolitan influenced zone (Ont.) / Zone d'influence métropolitaine forte (Ont.)	1	Low



Raw Data Table

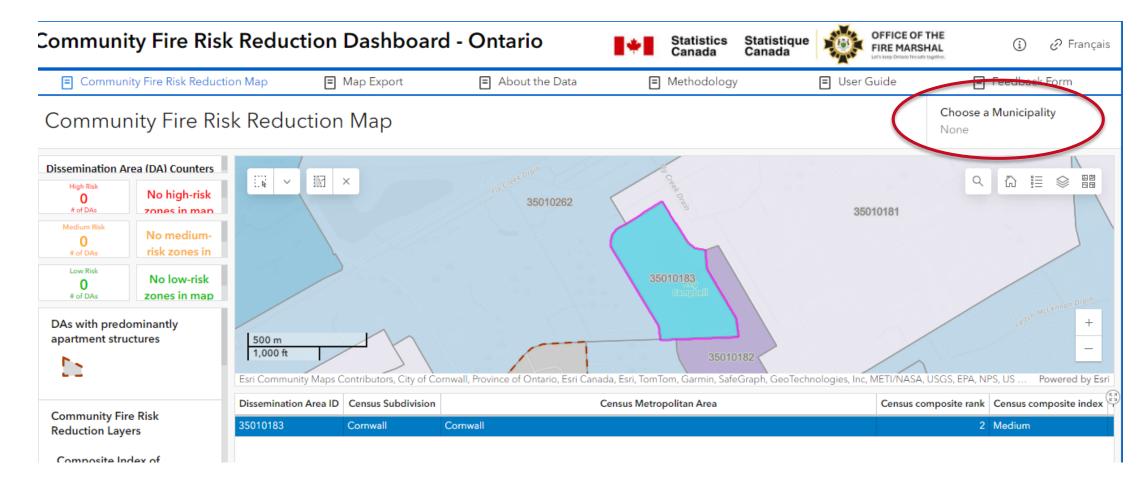
Community Fire Risk Reduction Map

Choose a Municipality None



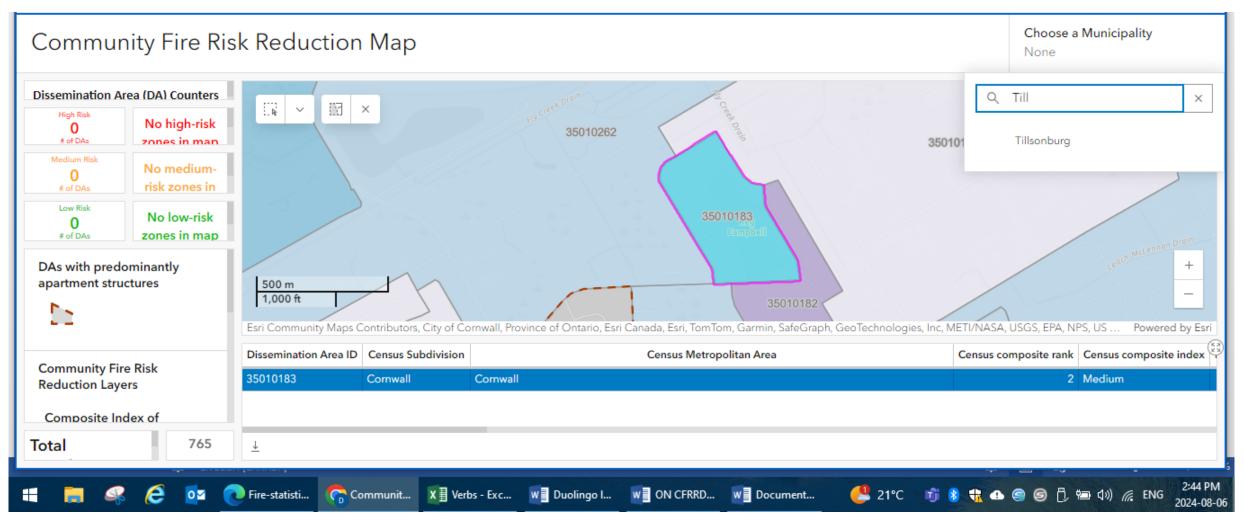


Raw Data Table



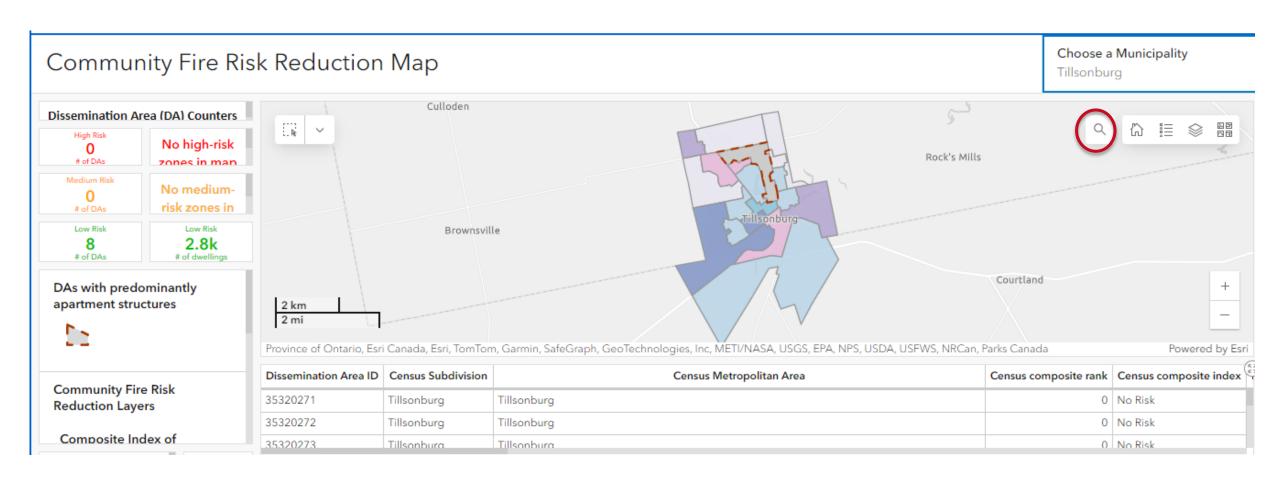


Choose a Municipality





Choose a Municipality





Community Fire Risk Reduction Dashboard - Ontario



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■ Community Fire Risk Reduction Map

Map Export

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Community Fire Risk Reduction Map

Choose a Municipality
None



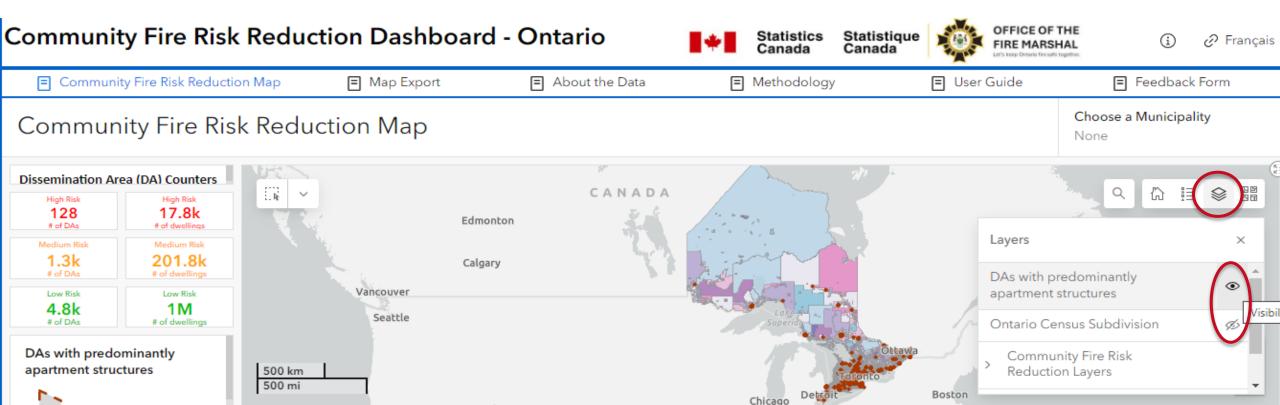
Community Fire Risk Reduction Layers

Composite Index of



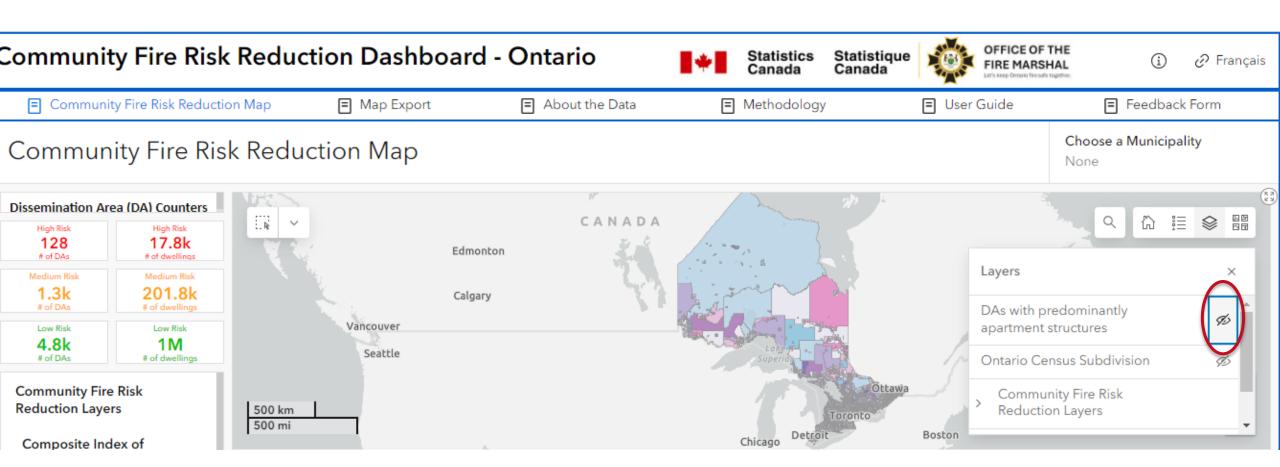
	Dissemination Area ID	Census Subdivision	Census Metropolitan Area	Census composite rank	Census composite index
	35010155	North Glengarry	Moderate metropolitan influenced zone (Ont.) / Zone d'influence métropolitaine modérée (Ont.)	0	No Risk
	35010156	North Glengarry	Moderate metropolitan influenced zone (Ont.) / Zone d'influence métropolitaine modérée (Ont.)	0	No Risk
	35010157	North Glengarry	Moderate metropolitan influenced zone (Ont.) / Zone d'influence métropolitaine modérée (Ont.)	0	No Risk



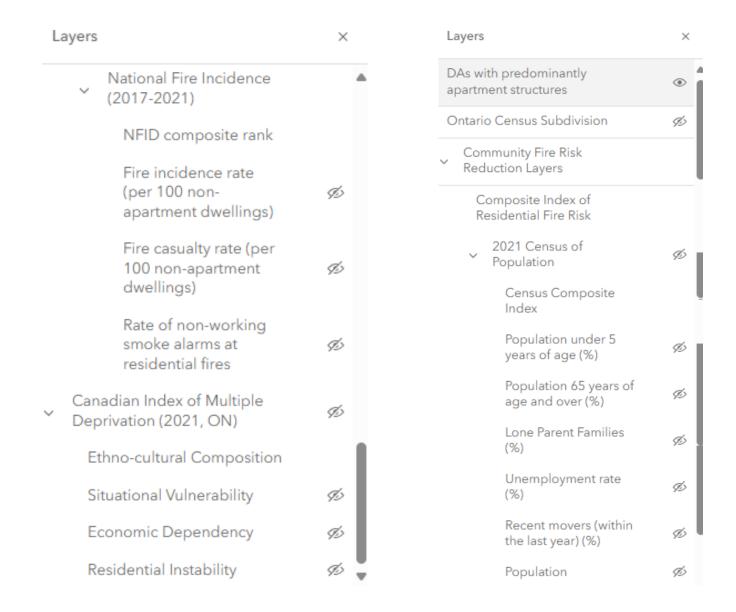




Toggling the Layers On and Off



Map Layers





Province of Ontario, Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, NRCan, Parks Canada

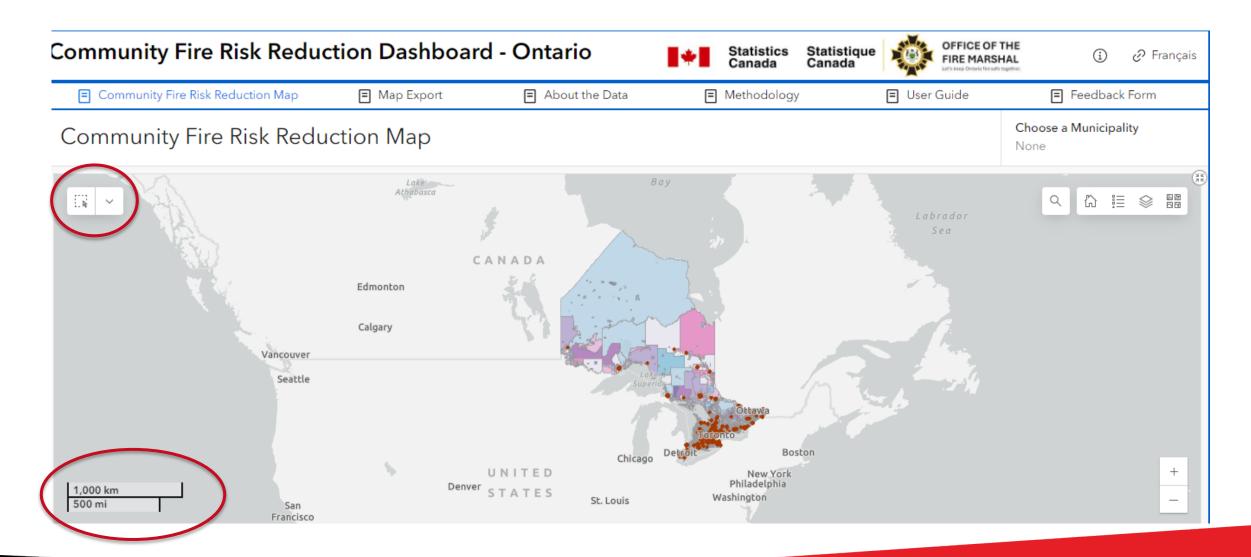
Maps

Powered by Esri

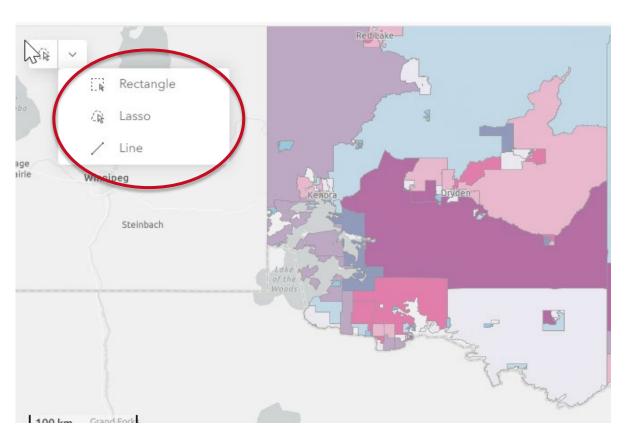
OFFICE OF THE Community Fire Risk Reduction Dashboard - Ontario Statistics Canada Statistique Canada @ Français FIRE MARSHAL Community Fire Risk Reduction Map About the Data ■ Methodology Feedback Form Map Export User Guide Choose a Municipality Community Fire Risk Reduction Map None Lake Athabasca R 6 Basemaps CANADA Edmonton Calgary Vancouver Imagery Imagery Hybrid Seattle Boston New York Philadelphia UNITED Navigation Topographic 1,000 km STATES Washington 500 mi St. Louis Francisco

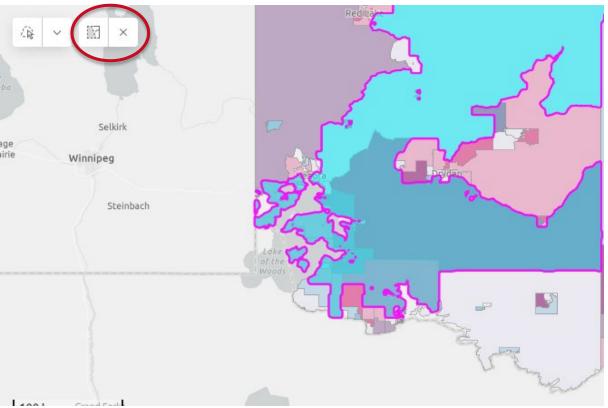


Dynamic Data Table Content Selection Tools



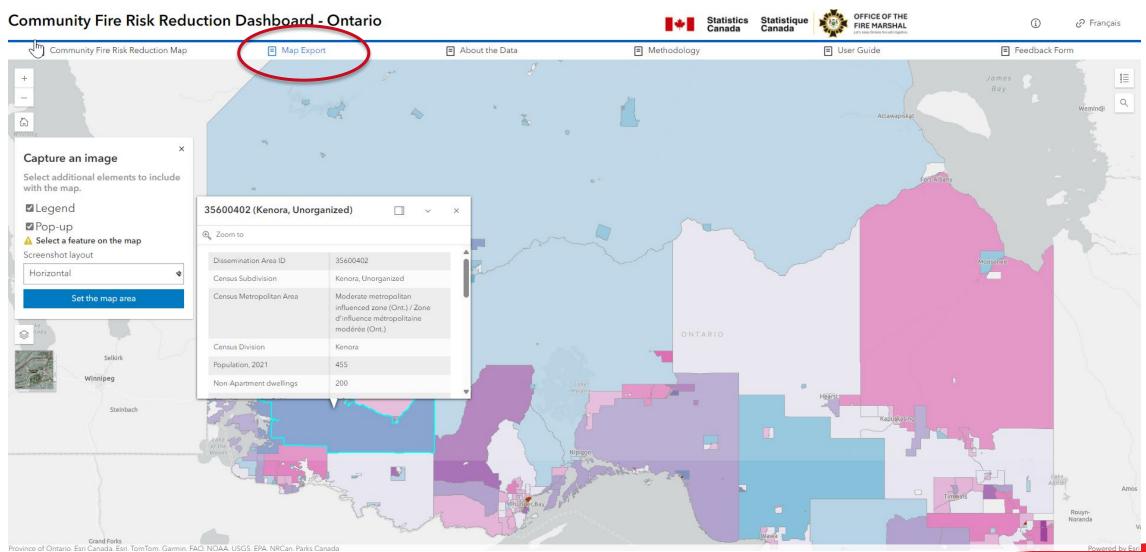
Dynamic Data Table Content Selection Tools







Map Export Tab





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About the Community Fire Risk Reduction Dashboard

This National Fire Information Database (NFID) "Community Fire Risk Reduction Dashboard" is part of a joint project between Statistics Canada and the Ontario Office of the Fire Marshal. This custom demonstration tool uses data from the NFID, the 2021 Census of Population and the Canadian Index of Multiple Deprivation (CIMD).

The Dashboard is intended to be used by fire service professionals as a potential aid to identify fire risk in neighbourhood communities in Ontario. The underlining assumptions[1] link selected population demographics with fire incidents that form a Composite Index of Residential Fire Risk that may be used to apply known fire prevention and reduction treatments. Please see the Methodology section of this Dashboard for more information of the Composite Index for Residential Fire Risk.

Applying the assumptions used in this tool does not guarantee success however has been demonstrated by some fire services to positively influence improvements in fire rates, deaths, and injuries.

What is a Dissemination Area?

A dissemination area (DA) is a small, relatively stable geographic unit composed of one or more adjacent dissemination blocks with an average population of 400 to 700 persons based on data from the previous Census of Population Program. It is the smallest standard geographic area for which all census data are disseminated. Dissemination areas cover all the territory of Canada.

For more about disseminations areas: Dictionary, Census of Population, 2021 - Dissemination area (DA) (statcan.gc.ca)

Community Fire Risk Reduction Dashboard Data Dictionary

Variable Name	Abbreviated Name	Definition	
OBJECTID	OBJECTID	Row Unique ID	
Dissemination Area ID	DAUID	Dissemination Area Unique ID	
Census Subdivision	CSDNAME_S DRNOM	Census Subdivision name	
Census Metropolitan Area	Census_Met_ Area	Census Metropolitan Area name	
Census Division	CDNAME	Census Division Name	
Non-Apartment dwellings	NonApart_R S_tot	Total number of non-apartment type dwellings	
Pop under 5 (%)	Pop_under_5	Total - Age groups and average age of the population - 100% data - 0 to 4 years, %	
Pop 65 and over (%)	Pop_65_and _over	Total - Age groups and average age of the population - 100% data - 65 years and over, %	
Lone parent families (%)	Lone_parent _families	Total lone-parent families, %	
Unemployment rate	Unemploym	Unemployment rate %	

Data Sources:

Statistics Canada Boundary Files: 2021 Census Boundary files (statcan.gc.ca)

Statistics Canada Census data: Census Profile, 2021 Census of Population (statcan oc.ca).



Methodology Tab

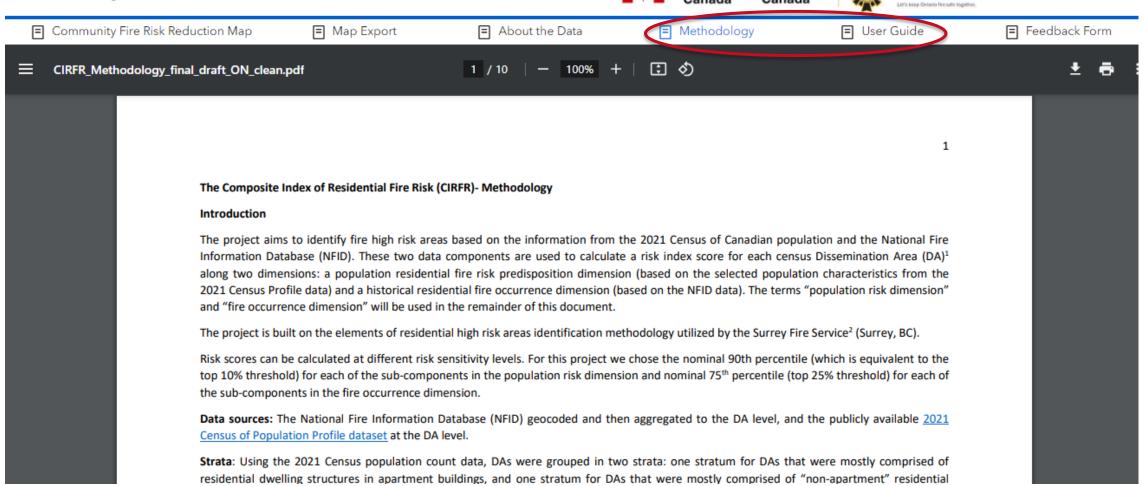
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Feedback Form Tab

OFFICE OF THE Community Fire Risk Reduction Dashboard - Ontario Statistique Canada Statistics FIRE MARSHAL Community Fire Risk Reduction Map User Guide ■ Map Export About the Data ■ Methodology Feedback Form Please use this survey to contact us! Do you have any comments, suggestions to provide or issues to report? Please provide feedback on any aspects including functionality, visuals, the data contained including the Composite Index of Residential Fire Risk. 1000 If desired, please leave name and contact information. Name, Email, Phone Number, Organization, etc.



Dashboard Links

https://www.statcan.gc.ca/en/sc/video/community-fire-risk-reduction

https://statcan.maps.arcgis.com/apps/instant/portfolio/index.html?appid=68fda0e9826245659e47a0778f35a875

https://experience.arcgis.com/experience/4611a367f9714f278358ef8983f44a23/page/Community-Fire-Risk-Reduction-Map/

Census Profile

Here are the links to the Census data available on the Statcan website.

- Go to Census landing page and enter a postal code or geography: <u>Census of</u> <u>Population (statcan.gc.ca)</u>
- Postal code entry brings you to map summary: 2021 Census of Population geographic summary: 35060143 [Dissemination area], Ontario (statcan.gc.ca)
- Clicking on "view a profile table" at top left brings you to a detailed table: <u>Profile</u> table, Census Profile, 2021 Census of <u>Population - 35060143 [Dissemination</u> area], Ontario (statcan.gc.ca)

Age (1/1)	Income (5 / 5)
Age characteristics	Income of economic families in 2020
Commuting (5 / 5)	Income of households in 2020
Commuting destination	Income of individuals in 2019
Commuting duration	Income of individuals in 2020
Main mode of commuting	Low income and income inequality in 2020
Place of work status	Indigenous peoples (2/2)
Time leaving for work	Indigenous ancestry
Education (4/4)	Indigenous population
Highest certificate, diploma or degree	Instruction in the minority official language (2 / 2)
Location of study compared with province or territory of residence	Children eligible for instruction in the minority official language
Major field of study - Classification of Instructional Programs (CIP) 2021	Eligibility and instruction in the minority official language for school-aged children
Secondary (high) school diploma or equivalency certificate	Labour (5 / 5)
Ethnocultural and religious diversity (3/3)	Class of worker including job permanency
Ethnic or cultural origin	Industry - Sectors - North American Industry Classification System (NAICS) 2017
Religion	Labour force status
Visible minority	Occupation - Broad category - National Occupational Classification (NOC) 2021
Families, households, and marital status (3/3)	Work activity during the reference year
Family characteristics	Language (7 / 7)
Household type	All languages spoken at home
Marital status	First official language spoken
Housing (1 / 1)	Knowledge of languages
Household characteristics	Knowledge of official languages
Immigration, place of birth, and citizenship (8/8)	Language spoken most often at home
Admission category and applicant type	Mother tongue
Age at immigration	Other language spoken regularly at home
Citizenship	Language of work (3/3)
Generation status	All languages used at work
Immigrant status and period of immigration	Language used most often at work
Pre-admission experience	Other language(s) used regularly at work
Selected places of birth for the immigrant population	Mobility and migration (2/2)
Selected places of birth for the recent immigrant population	Mobility status 1 year ago
	Mobility status 5 years ago
	Population and dwelling counts (1/1)
	Population and dwellings
	Type of dwelling (1/1)
	Household and dwelling characteristics

Dashboard Recommendations!





Questions?



Thank You!

DeLea Mapstone & Denise Thiessen

Delea.mapstone@canops.org

