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# Major Themes of the Integrated Map of the Americas

## CCMEO's Current Efforts

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USGS, Reston VA, May 2018

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# What We'll Cover

1. Transportation
2. Administrative Boundaries
3. Populated Place Names

Content, responsibility, collection, maintenance, availability



# Transportation

1. National Road Network
2. National Railway Network
3. Other Transportation Infrastructure

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# The National Road Network (NRN) Data Set (1/3)

- A « GeoBase » product, aggregated from the best provincial/territorial/municipal data
- StatCan is the new data set custodian (after twenty years at NRCan)
- NRCan is involved in product evolution
- Aimed at GoC business requirements and private sector applications
- Updated on a yearly cycle – we'd like to do better.

# The National Road Network (NRN) Data Set (2/3)

- All public roads, ferries and private roads with civic addresses
  - freeways, highways, arterial, collector, street, alleyway, ramp, resource road, rapid transit, service lane, winter road ... and ferry connection segments.
  - Tolls and Barriers/Gates
- 10 meters (33 feet) or better planimetric accuracy (ortho-imagery, municipal data, gps)

Road Class	Route Number	Number of Lanes	Speed	Address Range	Point Location
Pavement	Route Name	Structure: Bridge, Tunnel...	Direction of Traffic Flow: Oneways	Street Name	not Crossing: Rail, Pedestrian
	Exit Number	Road Jurisdiction	Closing Period	Place Name	Marker Post

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# The National Road Network (NRN) Data Set (3/3)

- Available on Federal Geospatial Platform and OpenMaps
- Distributed in the form of thirteen provincial or territorial datasets
- Also available through a Clip/Zip/Ship web-based interaction
- The NRN Web Service is multi-source/multi-scale
  - NRN data (nominally 1:20K)
  - 250K data (generalized five years ago...)
  - National Atlas Scales (1: 1M, 1:5M, 1:15M)
- Recent talks with FHWA

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# The National Railway Network Data Set (1/2)

- A « GeoBase » product
- Aggregated from private sector data (rail operators)
- NRCan is data set custodian



# The National Railway Network Data Set (2/2)

- Available on the Federal Geospatial Platform and OpenMaps
- Distributed in the form of thirteen provincial or territorial datasets
- Also available through a Clip/Zip/Ship web-based interaction
- The NRN Web Service is based upon a single non-generalized data set.

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# Other Transportation Infrastructure

- Airports / Runways / Maritime installations
- We are working to update our current collections
- Three strategies
  - Obtain from official stewards whenever possible
  - Obtain from provinces/territories (but they face the same challenges)
  - Capture from High Resolution Imagery – using AI and deep learning

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# Administrative Boundaries

1. Administrative boundaries in Canada - CanVec Series - Administrative features
2. Federal Electoral Districts - Canada 2015

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# Administrative boundaries in Canada - CanVec Series - Administrative features

The administrative features of the CanVec series includes geopolitical regions (international, territorial and provincial) and populated place names. **Municipal boundaries are not yet included. Our plan is to harvest them from provincial/territorial agencies.**

The layer is maintained by NRCan, as part of the CanVec series of topographic products.

- Available on the Federal Geospatial Platform and OpenMaps
- Distributed in the form of many prepackaged datasets
- The Web Service is based upon a single non-generalized data set.

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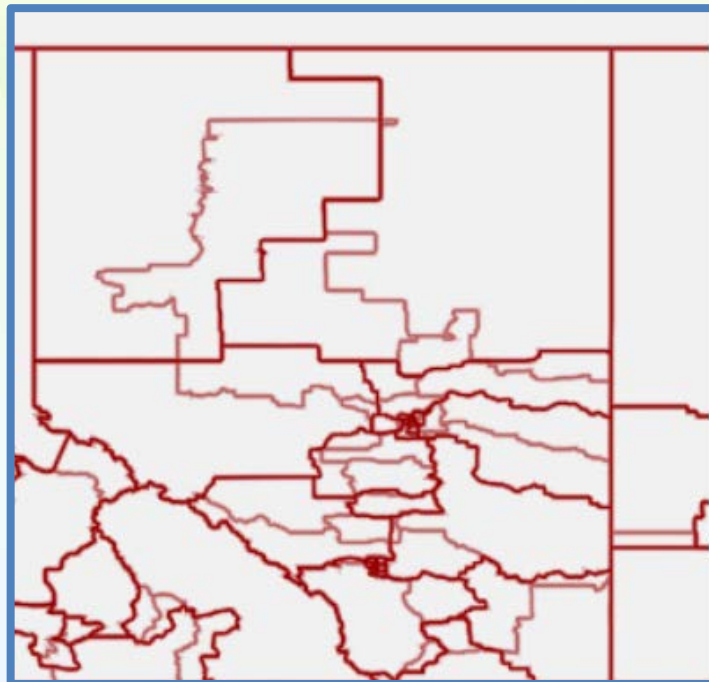
Canada

# Federal Electoral Districts - Canada 2015

Canada is divided into 338 electoral districts. A representative or member of Parliament is elected for each electoral district.

The layer is maintained by Elections Canada.

- Available on the Federal Geospatial Platform and OpenMaps
- Distributed in the form of many prepackaged datasets
- The Web Service is based upon a single non-generalized data set.

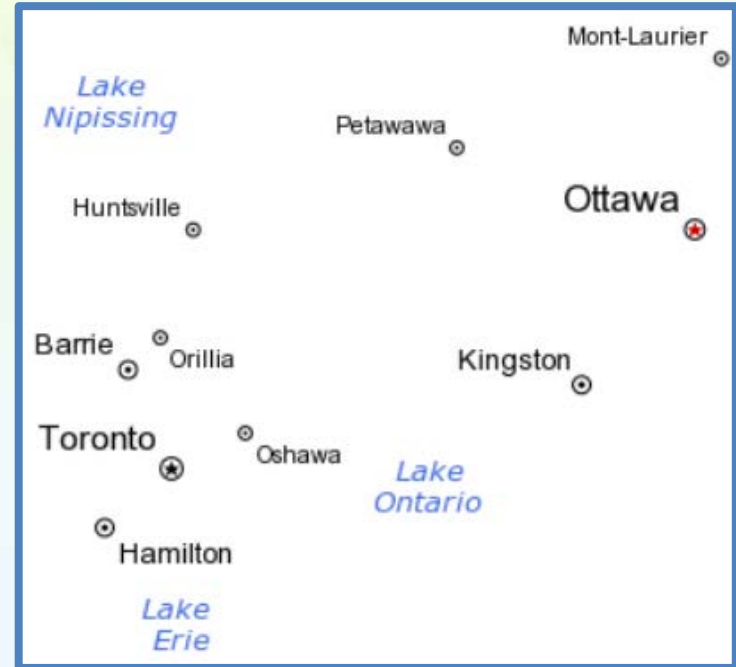


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# Populated Place Names (1/3)

The toponymic features of the CanVec series is a collection of names designating places and representations of the territory. This data comes from provincial, territorial and federal toponymic databases.

They are used in the CanVec Series for cartographic reference purposes and vary according to the scale of display. The layer is maintained by NRCan, as part of the CanVec series of topographic products.



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# Populated Place Names (2/3)

In Canada, since 1897, geographical names have been authorized through a national committee, now known as the **Geographical Names Board of Canada (GNBC)**.

Among today's roles of the GNBC as a national coordinating body are the development of **standard policies** for the treatment of names and terminology, the **promotion of the use of official names**, and the encouragement of the development of **international standards** in cooperation with the United Nations and other national authorities responsible for naming policies and practices.



# Populated Place Names (3/3)

## Canadian Geographical Names Database

Search Canada's authoritative national geographical names database by:

- Geographical Name
- Latitude and Longitude Coordinates
- Rectangular area
- Unique Key

Official geographical names data are provided by the federal, provincial and territorial naming authorities of the Geographical Names Board of Canada.



# Other Initiatives

- NACEI ([nacei.org](http://nacei.org)) – Energy Infrastructure Mapping, with Mexico (INEGI) and the United-States (EIA).
- The USGS's National Map Corps – VGI project presented to us in March of 2018.





# References (1/2)

- NRN Product - Open Maps: Downloads, Feature Catalogue...
  - <https://open.canada.ca/data/en/dataset/3d282116-e556-400c-9306-ca1a3cada77f>
- NRN 2.0 Conceptual Models (LRS and Segmented)
  - [ftp://ftp.ctis.nrcan.gc.ca/pub/information/NRN\\_V2/NRNV2\\_Models\\_PDF\\_Anglais/](ftp://ftp.ctis.nrcan.gc.ca/pub/information/NRN_V2/NRNV2_Models_PDF_Anglais/)
- NRN Best Practices Guide
  - [ftp://ftp.ctis.nrcan.gc.ca/pub/information/NRN\\_V2/Geobase\\_BestPracticesGuide\\_NRN\\_1\\_0.pdf](ftp://ftp.ctis.nrcan.gc.ca/pub/information/NRN_V2/Geobase_BestPracticesGuide_NRN_1_0.pdf)



# References (2/2)

- NRWN Product - Open Maps: Downloads, Feature Catalogue...
  - <https://open.canada.ca/data/en/dataset/ac26807e-a1e8-49fa-87bf-451175a859b8>
- [Administrative boundaries in Canada - CanVec Series - Administrative features](#)
- [Federal Electoral Districts - Canada 2013](#)
- [Canadian Geographical Names Database](#)
  - <https://www.nrcan.gc.ca/earth-sciences/geography/place-names/search/9170>

