National Road Network
(NRN)

2015-10-05

Natural Resources Canada
Earth and Sciences Sector
Canada Centre for Mapping and Earth Observation

Canadä

Copyright notice

RELEASES HISTORY

Date	Description
2015-10-05	Updating links Nova Scotia Geographic Information and National Defence and the Canadian Armed Forces Centre for Security Science (DRDC CSS)
2015-08-31	Updating links
2015-02-10	Adding direct FTP link to download the data and updating links for partners.
2014-09-01	Original edition

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What is GeoBase?

GeoBase is a federal, provincial and territorial government initiative that is overseen by the Canadian Council on Geomatics (CCOG). It is undertaken to ensure the provision of, and access to, a common, up-to-date and maintained base of quality geospatial data for all of Canada. Through GeoBase, users with an interest in the field of geomatics have access to quality geospatial information at no cost and with unrestricted use. More on GeoBase initiative.

Description

The second edition (2.0) of the National Road Network Standards available via GeoBase will be gradually populated to introduce address information to the 1 100 000 kilometres of road network data. The NRN will contain the representation of a continuous accurate centerline for all non-restricted use roads in Canada (5 metres or more in width, drivable and no barriers denying access) to which will be added a set of basic attributes, street name, place name and block face address ranges.

The work involved in developing the second edition of the NRN Standards began in 2003 and took two years to complete. The consultation process was accomplished with one-on-one meetings with closest to source providers as well as through national workshops that involved federal, provincial, territorial and municipal stakeholders alike.

In 2005, the second edition of the NRN model was adopted by the Inter Agency Committee on Geomatics (IACG) members and the Canadian Council on Geomatics (CCOG) members.

The new NRN model and content has been defined through national consensus. The NRN contains a standardized and homogeneous data representation. Each geometric feature has an assigned National Identifier (NID). The NID is populated with a universally unique identifier (UUID). The NID's are needed for the management of the data over time and will also be used to identify what changes have occurred between two distributed versions.

New edition 2.0 NRN Partnership agreements are currently being jointly negotiated by Natural Resources Canada and Statistics Canada to secure 'closest to source' maintenance principles of GeoBase. It is important to note that the GeoConnections program is providing funding opportunities to participating provinces, territories and lead federal agencies maintaining NRN data.

NRN datasets coming from authoritative data sources will be posted gradually over the coming months. Users will be kept informed of available GeoBase NRN releases in the Release Notes document.

Download the **NRN Fact Sheet** [pdf 295 KB]

Documentation

NRN Standards (Conceptual description)

- National Road Network, **Conceptual Model, Edition 2.0.1, 2012-03-31** [pdf 1,158 KB]

NRN Product (Data description)

- National Road Network, **Data Product Specifications, Edition 2.0.1, 2012-03-31** [pdf 148 KB]

- National Road Network, **Feature Catalogue, Edition 2.0.1, 2012-03-31** [pdf 209 KB]

- National Road Network, **Product Distribution Formats, Edition 2.0.1, 2012-03-31** [pdf 101 KB]

National Vector Data

- National Vector Data, **Identification Rules** [pdf 44 KB]

- National Vector Data, **Change Management** [pdf 56 KB]

Metadata

Metadata are provided with each dataset. Among other, the validity date and the planimetric accuracy are shown in this file.

Use and Restrictions

Use of the GeoBase data is subject to the Open Government Licence – Canada.

Data Formats

NRN datasets are available in:

- GML (Geography Markup Language)
- ESRI Shapefiles
- KML (Keyhole Markup Language) for Google Earth

KML datasets only provide a partial view of the data content.

Editing or Viewing Free Software

It is possible to see data using free software, see the question 'How can I open a raster or vector dataset if I do not have a GIS software?' in the GeoGratis FAQ section.

Data Discrepancies

This product is subject to Discrepancies processing provided by the Canada Centre for Mapping and Earth Observation from Natural Resources Canada. A *discrepancy* is defined as any deviation from the product's Standards and Specifications. You have any suggestions or comments regarding the National Hydro Network (NHN) product, please send it at: geoginfo@NRCan.gc.ca. You can also verify if they are discrepancies currently logged on the product.

Download datasets available

13 datasets available

In the GeoGratis search tool, insert, if you know, the location in the "Geographic Location" section, insert in the "Subject Keywords" section "nrn", click on "Data (vector, tabular, etc)", and finally click on "Search". You can reduce the number of products found by zooming on the map in the area of interest and click on the "Redo Search with Map Extent" option available under the map. You can also go directly to the list of datasets in the National Road Network GeoGratis API. Direct FTP link: National Road Network . For more information about the GeoGratis Search tool, see the question "How do I conduct a search in the GeoGratis tool?" in the GeoGratis FAQ.

View

Navigate through Toporama tool to create your own views of the data.

National Road Network Partners

While the goal is to continue to expand the use of partnerships to build collaborative working relationships for the management and maintenance of the NRN, the following organizations are 'closest to the source' partners actively working as the authoritative data providers of GeoBase's National Road Network:

Provincial and Territorial Agencies
British Columbia
  Integrated Resource Operations - GeoBC

Alberta
        Infrastructure
Saskatchewan
        Information Services Corporation
Ontario
        Land Information Ontario
Quebec
        Ministère de l'Énergie et des Ressources naturelles
Prince Edward Island
        Transportation and Infrastructure Renewal
Nova Scotia
        Geographic Information
Yukon
        Geomatics Yukon
Northwest Territories
        Centre for Geomatics
Nunavut
        Government of Nunavut

Federal Agencies
Natural Resources Canada
        Earth Sciences
        GeoConnections
Statistics Canada
        Statistics Canada
Elections Canada
        Elections Canada
National Defence and the Canadian Armed Forces
        Centre for Security Science (DRDC CSS)

Contact us

For answers to technical questions, please consult the Frequently Asked Questions section. In addition, the content of metadata files delivered with digital data can provide answers to most of your questions.

If you do not find answers to your questions or to submit your comments, suggestions and ideas about **GeoGratis**. Please contact us using one of the methods below:

- **By email at:** geoginfo@nrcan.gc.ca

- **By telephone: +01-819-564-4857 / 1-800-661-2638 (Canada and USA)**

Service Standards

The service standards are guidelines intended to ensure a uniform service to our customers. Service must be fast, reliable and of quality. The service is examined and improved regularly, based on customers' feedback.

We are committed to:

- Answer to users during business hours: from 8:30 AM to 12:00 PM and from 1:00 PM to 4:30 PM (Eastern Time).

- Respond to inquiries within 2 working days. When applicable, follow up on request within the period agreed with the user.

- Insure the availability of our website 90% of the time on a monthly basis, 24 hours a day, 7 days a week.