



## GeoBase – Hydrography Project

**T**he GeoBase – National Hydrographic Network project will produce geospatial hydrography data as a layer of the GeoBase initiative. The production and maintenance of the NHN datasets will be carried out by federal and interested provincial partners and co-funded by GeoConnections ([www.Geoconnections.org](http://www.Geoconnections.org)), an initiative of Natural Resources Canada (NRCan). Participating partners were selected for their interest and capacity to provide a homogeneous view of the Canadian landmass using the best available data. The Centre for Topographic Information (CTI) at NRCan will work with provincial and territorial partners to develop a national standard for the NHN and populate this data layer.

The term “hydro” associated with the product name (National Hydrographic Network or NHN) refers to the idea that this data model synthesizes certain key concepts of hydrography and hydrology to describe the surface water system. The integration of both aspects to the NHN model will enable the model to be flexible and support various types of applications such as cartographic representation and data analysis to satisfy the requirements of a varied user base. The NHN proposes two representations: the first is the creation of a linear hydrographic network logically linking, through single centerlines, all connected water bodies; the second is a more traditional cartographic representation depicting all boundaries of various water bodies. The NHN content will include five key packages: the network, the events (attribute information), the hydrographic (graphical representation), the toponymy and the metadata. Each package will contain classes and attributes to represent hydrography phenomena.

CTI will produce the initial version of the NHN in collaboration with the territorial and provincial partners. The NHN will be produced from the best available sources, depending on the region, data resolution, data availability and data accuracy. Therefore, data will be coming from

provincial sources and the resolutions of these sources are at the scale of 1:10,000 or 1:20,000 and accuracies are usually ranging from 5 to 25 m. Otherwise, data will be coming from federal sources at the scale of 1:50,000, where accuracies meet the national ortho-image framework. The NHN will comply with new technologies and international standards to define the national hydrography standard. The development of the network will also address issues related to representing and managing topographic data under the theme of hydrography. As part of GeoBase, the NHN data will enable users to use and share information based on the same framework. The GeoBase ([www.GeoBase.ca](http://www.GeoBase.ca)) portal will become an essential source of consistent, national geospatial data to support natural resource management. Additional information on GeoConnections and GeoBase is available as a separate appendix.

### Project Priorities:

- Establish national standards for hydrography in consultation with partners and stakeholders;
- Establish partnership agreements with GeoConnections and other federal and provincial and territorial partners;
- Develop and evaluate a prototype for the hydrographic network;
- Produce the hydrographic network in accordance with the national standard using the best available provincial and federal data.

### For more information:

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