

## Technical Bulletin: New *Dam and Barrier* Data Class to Replace *MNR Dams* Data Class

**Overview:** A new data class has been created called Dam and Barrier. This data class replaces the old MNR Dams data class. It is the official place to store all dam and barrier information for Ontario. The new Dam and Barrier data class contains the same information as the Waterstructures data class where the GUT represents dams or locks as well as information about some additional types of anthropogenic (made by humans) barriers and natural barriers (caused by variations in the landscape or natural features).

### Change Effective Date: November

**Action Required:** [The new Dam and Barrier data class has been implemented in NRVIS and LIO but it has not yet been populated with data. Users of the old MNR Dams data class should be aware that the class will be replaced with the new Dam and Barrier data class in the LIO Warehouse. Once the Dam and Barrier data class has been populated with the old MNR Dams data \(by November\), users may need to modify existing programs to continue to make use of this data. Users should download the new data class from the \[LIO Warehouse\]\(#\).](#)

### Background

A workshop was held in January 2008 which included a variety of parties interested in dams and barrier information. During this workshop, there were discussions about how to fill the need for accurate, up-to-date and easy to use information about dams in the province, as well as possible sources of that information. Out of that workshop the Information Owner for the existing MNR Dams data class submitted a project in the 08/09 fiscal year which requested an update/ re-analysis of the MNR Dams data class to be able to include information on all provincial dams (not just MNR) as well as other aquatic barriers in the province.

The existing MNR Dams data class was too complex and overloaded with information that didn't need to be stored directly on the model. As well, there are many different business areas that have an interest in the locations of dams and barriers and not all of the information they need to track can be managed effectively on one data model. A steering committee and working group of business area experts were established to guide the development of the Dam and Barrier data class. The ownership that was established for this new class is shared between three MNR Branches - Lands & Waters Branch, Fish & Wildlife Branch and Great Lakes Branch.

The steering committee and business area experts decided that this class will be structured as basic point geometry, and house a few important high level attributes about Natural and Anthropogenic barriers. If there is additional information that needs to be stored about dams and barriers (ex. Engineering information), the business area

that is interested in that information would be required to store it in a separate database which would link to the location information in this data class through a universal Barrier ID.

The Enhanced Dam Management Program in Water Resources section is proposing changes that, if accepted, will have many dams registered by their owners through an online application and provide information about dam location and other characteristics. An additional repository of un-registered dams is also being assembled. Dam location and other basic information from both repositories will be combined and represented in the Dam & Barrier data class. Water Resources Section has taken on the responsibility for updating the dam information (and other anthropogenic barriers) in this new data class.

Fisheries Section (Fish and Wildlife Branch) and the Great Lakes Branch will be managing information about fish movement., since dams and other anthropogenic structures are often barriers to fish, as are other natural features (falls, rapids). The information about fish passability of a given dam or barrier will be developed through another project and stored in a database external to this data class (linked through the Barrier ID).

Two NRVIS administrators have been identified for this data class. The first, from Water Resources Section, will be responsible for updates to the “Anthropogenic” side of the data class. Second, the Great Lakes Branch Information Management Specialist, will be responsible for updates to the “Natural” (variations in the landscape or natural features) side of the data class. Both NRVIS administrators will accept suggestions for edits to the data class. Edits to the information in this data class will only be made by the administrators (or their designates).

When first implemented, the new Dam and Barrier data class will only contain the information from MNR Dams. As new data is submitted it will be added when appropriate. Efforts are underway to compile and consolidate information across Ontario that currently exists. This compilation is expected to take several months to complete and will represent the next load into the new data class.

Presently, a Web Mapping Service (WMS) exists for the MNR Dams data class. A new WMS will be created for the new Dam and Barrier data class and will replace this existing WMS, once it is ready.

**Summary of Changes:**

Type <sup>a</sup>	Target <sup>b</sup>	Description <sup>c</sup>
Re-analysis	the entire data class	Dam and Barrier is a new data class that will replace the existing MNR Dams data class.

**a) Type:** Table Added; Table Changed; Data Dictionary; Geog Unit Type Change

**b) Target:** Identifies target of change – identify i) Table Name if added or dropped, ii) Table.Attributename if attribute is added, dropped or modified in a table, iii) Geog. Unit Type Name if a new Data Type is added/expired has description modified etc...

**c) Description:** Additional description of change type,; e.g.: 'Field length expanded from 40 to 80 chars'.

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## **Additional Information**

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