Revision History

Ver#	Date	Initials	Description/Rationale of Changes
1.0	2005		Reformat of initial version
1.1	2005	DCG	Addition of 'Station Name Change'
2.0	2006	DCG	Station Numbering for Special Projects added
3.0	2010	DCS	Station Numbering for Groundwater, WSC Met, and MSC Climate stations added; "Station Remarks" and "Additional Information" removed.

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Introduction

Numbers and names are assigned by staff in Regional Offices after having plotted the stations latitude and longitude coordinates on topographic maps and verifying the name from an appropriate gazetteer. Both Regional Offices and Headquarters should make extensive use of gazetteers and topographic maps for identifying bodies of water. Station names for partnered stations should also follow these guidelines and it is a regional responsibility to ensure that partners are aware of and that they adhere to WSC identification standards.

Official names are listed in provincial Gazetteers and Supplements prepared by the Secretariat of the Canadian Permanent Committee on Geographical Names (CPCGN) or can be found at a site maintained by the CPCGN in conjunction with the server for the Canadian Geographical Names Database (CGNDB).

The CPCGN is authorized to rule on all questions concerning geographical names in Canada. In cases where geographical name is in question or not available, contact the CPCGN for an official ruling. The "Principles and Procedures" booklet prepared by the CPCGN outlines procedures required for determined official names but the following procedure is also a guide when requesting information regarding geographical names:

1. Identify the feature in question on a map; enclose the map.

2. Give local name, if any.

3. If no local name is known, a name may be suggested, otherwise request that a name be assigned. If suggesting a name, state the rationale.

4. State the reason for the name request – this is usually for identification of gauging stations for the collection of hydrometric data.

Station Numbering

Each gauging station is assigned a unique seven-character identification number. Station numbering begins with the number assigned to one of the eleven major river basins or divisions in Canada. These main divisions are subdivided following land height within the division, with a letter assigned to each subdivision. Each subdivision is further divided on drainage basin boundaries and assigned a second letter.

For example:

05BD

Infers that the station is located in the major river basin “05”, within land height subdivision “B” and drainage basin boundary “D”.

Stations in this sub-subdivision are uniquely identified by a three-digit, chronological number, assigned in order of date of establishment, independent of stream order. Thus “05BD007” is the seventh station established in the sub-subdivision of “05BD”.

Before assigning a new station number, research will be required to ensure that there is no discontinued station number that can be re-activated. If the new station is a discharge station and the drainage area is within 3% of that of a discontinued discharge station, it is permissible to reactivate the number for the new station because the flow will be essentially the same.

This rule does not apply to water level stations. In order to re-activate a discontinued water level station number, the new station must be on the same body of water, and be representative of the same water elevation.

Sometimes research may be required with regard to station numbers for partnered stations. Regions should confirm that the station number assigned by the partner is in fact in the correct drainage basin and follows the WSC numbering and naming guidelines. Avoid assigning two station numbers to a single station, even when the operator of a station changes. The same station number should always be used no matter which agency is operating the station.

Station Numbering for Special Projects

Hydrometric stations may be established for special purposes such as research or pilot projects. The data produced at such stations will usually be considered as experimental and may or may not adhere to Water Survey standards for data collection. To optimize the use of departmental software and maintain database integrity a standard has been developed for the naming of these stations.

Special project station numbers remain a seven character unique identifier. The first four characters continue to represent the location of the major river basin, the land height subdivision and drainage basin boundary. Change to the standard numbering practice is reflected in the fifth character of the station number. This first character of the chronological sequence number is used to indicate the station as having a special project status. As of April 2002, the character **"X"** is recognized as the identifier for a special project station. The remaining two digits serve as the chronological sequence number for the specified sub-subdivision (i.e. **02ABX01**, **02ABX02**,…).

Current use of digits other than the letter "X" that are used by some regions to identify special project stations are still valid but must be documented as such. Comments should be written in the appropriate publication remarks and general remarks fields found in Compumod/HWS, Hydex and Hydat.

If the data was published at some future date, it would be published under its assigned special project number. If the station was converted to an on-going station, it would be assigned a proper station number effective the date of the change in operational status. Data would be published under its special project number for the period it was operated as a special project, and under the normal number effective the date of conversion to normal operations. There will be references under CompuMod/HWS, Hydex and Hydat to each set of data.

Station Numbering for Groundwater Monitoring Stations

As in the case of the special project station, a groundwater monitoring station being operated by and having its data managed by Water Survey, will have a unique seven character station number. The station number structure will be similar in order to maintain database integrity and logical sense with respect to the Water Survey national standard for naming hydrometric stations.

The fifth number of a groundwater station number will be designated as the letter ‘G’. The two numbers following the ‘G’ will be sequential according to the chronology of installation of the station. (eg. 02ABG01, 02ABG02)

The use of this numbering convention should only be used for groundwater monitoring stations where a written agreement with respect to funding, operation and data collection exists.

Naming of groundwater stations will not adhere to the following station naming conventions for surface water stations. It is suggested that the first part of a station name contain a recognized name representing the local geographic location such as towns, counties, and rights of way. It is preferable that the name be listed in provincial Gazetteers and Supplements prepared by the Canadian Permanent Committee on Geographical Names. The remainder of the name should contain the individual well or borehole identifier (eg. Fredericton Well #24; Lanark Cty SW5).

All numbered and named stations being operated are expected to have a current location description and other metadata entered into HYDEX for data management and life cycle purposes.

Station Numbering for Meteorological Monitoring Stations

It is important to note that these meteorological stations are not part of the MSC weather monitoring networks. The stations are operated by the Water Survey independent of the hydrometric network with the express purpose of collecting met data to support specific Water Survey of Canada

operations. As in the case of the special project station, a meteorological monitoring station being operated by and having its data managed by Water Survey, will have a unique seven character station number. The station number structure will be similar in order to maintain database integrity and logical sense with respect to the Water Survey national standard for naming hydrometric stations.

The fifth number of a meteorological station ID will be designated as the letter 'M'. The two numbers following the 'M' will be sequential, starting at 1, and according to the chronology of installation of the station within the same watershed. (eg. 02ABM01, 02ABM02)

The use of this numbering convention should only be used for meteorological monitoring stations where a written agreement or purpose with respect to funding, operation and data collection exists.

Naming of meteorological stations will not adhere to the following station naming conventions for surface water stations. It is suggested that the first part of a station name contain a recognized name representing the local geographic location such as towns, counties, and rights of way. It is preferable that the name be listed in provincial Gazetteers and Supplements prepared by the Canadian Permanent Committee on Geographical Names. The remainder of the name may contain an individual identifier (eg. Altawan Evaporation Station).

All numbered and named stations being operated are expected to have a current location description and other metadata entered into HYDEX for data management and life cycle purposes.

Station Numbering for Climate Stations (MSC Network)

Climate stations are part of the MSC weather monitoring network and are not operated by Water Survey of Canada. The data from these stations are used to support both the Water Survey of Canada field operations and data production/interpretation process. As in the case of the special project station, a Climate station has a unique seven character station number. The station number structure will be similar in order to maintain database integrity and logical sense with respect to the Water Survey national standard for naming hydrometric stations. It will also help in order to locate the climate data useful to any area.

The fifth number of a Climate station number will be designated as the letter 'C'. The two numbers following the 'C' will be sequential, starting at 1, and according to the chronology of addition of a Climate station within the same watershed.. (eg. 02ABC01, 02ABC02)

Climate stations are to be designated by Water Survey using the exact name assigned by Meteorological Services of Canada and appended with their 7 digit identification number. (e.g. WSC Station ID= 02ABC01; WSC Station Name= Thunder Bay AWOS 6048264)

All numbered and named stations being operated are expected to have a current location description and other metadata entered into HYDEX for data management and life cycle purposes.

Station Naming

Each gauging station is also assigned a unique WSC name for identification.

The name should not exceed 70 characters, including spaces, to match the field definition for STATION_NAME in HYDEX. **Do not assign the same name to two stations or station numbers.**

Station name is comprised of two portions:

1) The first portion should contain the official or proper name of the watercourse as assigned by the provincial Gazetteers and Supplements prepared by the Canadian Permanent Committee on Geographical Names.

   For example: "Maple Creek" or "Round Lake".

   This allows the stations to be sorted or searched for in alphabetical order by proper names. (Some exceptions are major water courses where the proper name is well established such as "River John" or "Lake Superior".)

   Names which are unique but reference another watercourse should be discouraged because they are confusing to users and more difficult to find in a name search, e.g.:

   Little Southwest Miramichi River
   Northwest Miramichi River
   Southwest Miramichi River
   Lower North Branch Little Southwest Miramichi River
   North Branch South Nation River

   Searching through a list for "Little" or "North" can be confusing and the user may be uncertain if "Branch" is before or after the river name. When possible a unique name for a tributary should be established to avoid using forms like "West Branch".

   The WSC has chosen to identify station names for Quebec in French, with the specific term followed by the generic term in brackets, e.g.:

   Richelieu (Rivière)
   Deux (Lac des)
   Meach (Ruisseau)

   This convention makes Quebec stations consistent with the other provinces, where the specific term is usually the first word. Using this convention simplifies name searches in alphabetical order.

2) The second portion acts as a location identifier of the station on the water body. Some standard conventions apply.

   The following expressions are acceptable:

   "Highway No. 47";

"at the Mouth";
"at Outlet of Bunker Lake";
"above Alice Creek";
"Powerhouse".

Usually the words "at" or "near" are used with name places, while "above" and "below" are used when referring to water bodies.

Avoid double names or double geographic references. For example:

do **NOT** show "at Outlet of Bunker Lake near Moose Jaw".

Avoid abbreviations such as "HWY" for "HIGHWAY". An exception is the use of "NO." for "NUMBER".

Avoid the use apostrophes, hyphens or commas imbedded in the name.

Do not use symbol set characters such as @ for "at", # for "number".

Examples: Grant Creek near Slocan
Elk River at Elko
Powers Creek above Westbank Diversion
Lievre (Rivière du) en aval de la Rivière Kiamika

Occasionally, a river may have more than one "official" name. This may be a result of difference in spelling, (e.g. "Kootenay" in Canada or "Kootenai" in U.S.A.) or name changes throughout the watercourse (e.g. "Maynard Coulee" in Canada" or Spring Coulee" in U.S.A.); the name may change twice (e.g."Souris River" to "Yellow Grass Ditch" back to "Souris River"); or there may be both English and French names (e.g. "Ottawa River" or "Rivière des Outaouais'). Duplication is confusing to the user and should be eliminated wherever possible.

International gauging stations located in the United States apply the U.S.A. nomenclature. This may result in different spellings for the same river, as with "Kootenay" in Canada, "Kootenai" in the U.S.A.

It is important that each station name reflect the official geographic name, whether or not the station is currently active or discontinued. Names should be validated periodically by Regional staff against gazetteers to ensure that established names remain unaffected by official name changes.

Station Naming at Unnamed Watercourses

There are thousands of watercourses in Canada which have not been assigned official names. Many of these watercourses are in remote areas, others are small ditches, coulees or creeks which make up millions of tributaries of our surface drainage system. There is often an immediate need to identify these small watercourses as when research is being done on isolated watersheds. Usually, in these situations, names assigned by the researcher are accepted rather than wait for an official name.

For example:

INLET NO. 1
LAKE 239 OUTLET
UNNAMED TRIBUTARY NO. 1

Station Name Change

In the event that an official name is modified, following for example the amalgamation of many cities into one or the change of a road number, the change should also impact the name given to a station. Again, the change is legitimate if the names are officially recognized and listed in the provincial Gazetteers and Supplements prepared by the Secretariat of the Canadian Permanent Committee on Geographical Names (CPCGN). The station name is then modified in national and local databases to reflect the changes documented in this gazetteer. Data users are informed of the change when it occurs, with a statement under the annual publication remarks for that year. From then on, the new station name is used without reference to the previous one.