***USGS Stream Gages USA – NHDPlus Medium resolution***

[***https://water.usgs.gov/GIS/metadata/usgswrd/XML/streamgages.xml#stdorder***](https://water.usgs.gov/GIS/metadata/usgswrd/XML/streamgages.xml#stdorder)

***Description:***

***Abstract:***

The locations of approximately 23,000 current and historical U.S. Geological Survey (USGS) streamgages

in the United States and Puerto Rico (with the exception of Alaska) have been snapped to the medium resolution

National Hydrography Dataset (NHD). The NHD contains geospatial information about mapped surface-water

features, such as streams, lakes, and reservoirs, etc., creating a hydrologic network that can be used to

determine what is upstream or downstream from a point of interest on the NHD network. An automated

snapping process made the initial determination of the NHD location of each streamgage. These initial NHD

locations were comprehensively reviewed by local USGS personnel to ensure that streamgages were snapped

to the correct NHD reaches. About 75 percent of the streamgages snapped to the appropriate NHD reach

location initially and 25 percent required adjustment and relocation. This process resulted in approximately

23,000 gages being successfully snapped to the NHD.

This dataset contains the latitude and longitude coordinates of the point on the NHD to which the streamgage

is snapped and the location of the gage house for each streamgage. A process known as indexing may be used

to create reference points (event tables) to the NHD reaches, expressed as a reach code and measure (distance

along the reach). Indexing is dependent on the version of NHD to which the indexing is referenced. These data are

well suited for use in indexing because nearly all the streamgage NHD locations have been reviewed and adjusted

if necessary, to ensure they will index to the appropriate NHD reach.

Flow characteristics were computed from the daily streamflow data recorded at each streamgage for the period of

record. The flow characteristics associated with each streamgage include:

First date (year, month, day) of streamflow data

Last date (year, month, day) of streamflow data

Number of days of streamflow data

Number of days of non-zero streamflow data

Minimum and maximum daily flow for the period of record (cubic feet per second)

Percentiles (1, 5, 10, 20, 25, 50, 75, 80, 90, 95, 99) of daily flow for the period of record (cubic feet per second)

Average and standard deviation of daily flow for the period of record (cubic feet per second)

Mean annual base-flow index (BFI) computed for the period of record (fraction, ranging from 0 to 1)

Year-to-year standard deviation of the annual base-flow index computed for the period of record (fraction)

Number of years of data used to compute the base-flow index (years)

The streamflow data used to compute flow characteristics were copied from the NWIS-Web historical daily discharge

archive (http://waterdata.usgs.gov/nwis/sw) on June 15, 2005.

***Purpose:***

The purpose of this dataset is to document the location of USGS active and historical streamgages on the NHD

version 2002 medium resolution (1:100,000-scale). This dataset can also be used to index these USGS streamgages

to other versions of the NHD as well. The flow characteristics tied to each of the streamgages attached to the NHD

will greatly facilitate hydrologic analysis and can be used for such things as the development of regional statistical

models of streamflow at ungaged locations.