

NHDPlus Release Notes for Region 20 Last Updated 8/2/2010

Data Release Note – 8/2/2010 – Flowline_Cat_Attr V01_02 Released

Two changes have been made to the FlowlineAttributesFlow Table: (1) All zero slopes have been changed to a nominal slope of 0.00005; and (2) the corresponding MAVELU and MAVELV estimates have been updated using the Jobson “slope” method for all Flowlines where these slopes have been changes. The result of this change is that the Jobson “noslope” method is never used. The reason for this change is that the NHDPlus Team has determined that the “noslope” method is not appropriate for zero slope applications. The Jobson velocity calculations are described in Appendix A- Step 6 of the NHDPlus User Guide.

Data Release Note – 10/17/2008 – NHD Component V01_03 Released

NHDFlowlineVAA.StreamOrde was set to zero to indicate that users are directed to use the new Stream Order/Stream Calculator fields that are available from the Data Extensions tab on the www.horizon-systems.com/NHDPlus web page.

Data Release Note – 7/16/2007 – NHD Component V01_02 Released

Extraneous fields were removed from the NHDFlowline attribute table.

Data Release Note – 6/28/2006 – Placement of Sinks

Sinks were not applied, as there are no closed 8-digit subbasins within Hydroregion 20.

Data Release Note – 6/28/2006 – Application of the Watershed Boundary Dataset

The Hawaii certified Watershed Boundary Dataset (WBD) was not available and therefore not applied in the production of the HydroDEM. For more information on WBD see the NHDPlus Metadata file.

Data Release Note – 6/28/2006 – Drainage Area

NHDPlus drainage areas match gage areas quite well with the following exceptions in which the gage areas are much greater than the NHDPlus drainage area values:

Gage 16213000 – Gage is located on the minor path of a divergence

Gage 16016000 – Gage is probably in the wrong location and should be reviewed

Gage 16330000 - Gage is probably in the wrong location and should be reviewed

Gage 16273900 - Gage is probably in the wrong location and should be reviewed

Data Release Note – 6/28/2006 – Flow

The UROM and “Vogel” methods cover only the continental U.S. (Hydroregions 1 to 18). Therefore the UROM and the logical equivalent to the “Vogel” regression method are different in Region 20 (Hawaii) than for the mainland Hydroregions. See the Step 6 in the NHDPlus User Guide for more information on the Region 20 flow estimation methods. One issue to note is that the Regression Method in Region 20 (Fontaine, et. al.) estimates median annual flow but the flow QA uses the gage mean annual flow.

The UROM significantly overestimates mean annual flow at Gages 16031000, 16028000, 16036000, and 16049000. All of these gages are located on the Southern drainage of Kauai Island. Also, the UROM significantly overestimates the mean annual flow at gage 16216000 which is located on the southern end of Oahu. Therefore, UROM flow estimates in these areas may be considered as unreliable. With these exceptions, the mean annual NHDPlus flow estimates can be considered generally unbiased but with a significant variance in comparison to the gage flows.

Reference:

Fontaine, R.A., Wong, M.F., Matsuoka, I., Estimation of Median Streamflows At Perennial Stream Sites In Hawaii, U.S. Geological Survey Water-Resources Investigations Report 92-4099 (1992), U.S. Geological Survey.