

**NHDPlus Release Notes for
Region 13
Last Updated 8/2/2010**

Data Release Note – 8/2/2010 – Flowline_Cat_Attr V01_03 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.

Release Note 06/05/2007 – The gage event data problems fixed.

New data is available in the NHDPlus13V01_02_StreamGageEvent.zip file.

Release Note 06/05/2007 – The problem with IncrFlowU in FlowlineattributesFlow Tables has been corrected.

New data is available in the NHDPlus13V01_02_Cat_Flowline.zip file.

Release Note 12/13/2006 – Problem with IncrFlowU in FlowlineattributesFlow Tables

In several of the HydroRegions there are incorrect values for the IncrflowU field. This problem exists when the UROM flow computations attempt to compensate for consumptive use by applying only a proportion of the unit runoff flow on intermittent streams. These incorrect IncrFlowU values can be corrected as follows:

If FCODE <> 46003, then:

In HydroRegion 10, the correct IncrFlowU = IncrFlowU / 0.05

In HydroRegion 11, the correct IncrFlowU = IncrFlowU / 0.75

In HydroRegion 13, the correct IncrFlowU = IncrFlowU / 0.20

In HydroRegion 14, the correct IncrFlowU = IncrFlowU / 0.05

In HydroRegion 15, the correct IncrFlowU = IncrFlowU / 0.05

In HydroRegion 16, the correct IncrFlowU = IncrFlowU / 0.05

In HydroRegion 17, the correct IncrFlowU = IncrFlowU / 0.10

In HydroRegion 18, the correct IncrFlowU = IncrFlowU / 0.10

This problem does not affect any other HydroRegions or any other fields in the FlowlineattributesFlow Table.

Data Release Note – 07/31/2006 – Catchments

Catchments in Mexico for Region 13 were developed from the ArcHydroBinational_Jan05_Official.mdb” geodatabase, found at <ftp://ftp.crwr.utexas.edu/pub/outgoing/PATINOC/RioGrandeInfo/>. Additional information about the geodatabase and its development can be found at <http://www.crwr.utexas.edu/riogrande.shtml>. The “Watershed” feature class and “HydroNetwork” geometric network from the above geodatabase were used to extend the NED-derived catchments on the Mexico side of the border. A few of the Watershed features were split to give better representations of the drainage areas. Also noted, but not fixed, were numerous small gaps between the Watersheds.

Data Release Note – 07/31/2006 – Missing Catchments and Catchment Attributes

Neither catchments nor catchment attributes were generated for two flowline features: ComId's 20759826 and 626128. Each of these flowlines has a spatial duplicate flowline in NHD. During the GRID process that rasterizes NHD, each grid cell can only represent a single NHD comID. Therefore, when there are spatially duplicated flowlines, only one of the flowlines is represented in the grid and only one of the flowlines gets a catchment.

Flowline 626128 is duplicated by flowline 626130 which received the catchment. Flowline 20759826 is duplicated by flowline 3215383 which received the catchment. All cumulative attributes for NLCD, temperature and precip and the attributes for upstream flow volume and velocity are routed through (i.e. assigned to) ComId's 626130 and 3215383. ComId's 20759826 and 626128 are treated as minor divergences and as network termination points.

Data Release Note – 07/31/2006 – Placement of Sinks

Nodata sinks were applied to the HydroDEM flow direction and flow accumulation grids at the outlet of isolated networks within closed 8-digit hydrologic subbasins. The closed basins are listed below:

13020206 – North Plains. New Mexico
13020208 – Plains of San Agustin. New Mexico
13020210 – Jornada Del Muerto. New Mexico
13030103 – Jornada Draw. New Mexico
13050001 – Western Estancia. New Mexico
13050002 – Eastern Estancia. New Mexico
13050003 – Tularosa Valley. New Mexico, Texas
13050004 – Salt Basin. New Mexico, Texas

Sinks were also applied at terminating reaches along the U.S./Mexican border where water was flowing into Mexico from the U.S.

Data Release Note – 07/31/2006 – Application of the Watershed Boundary Dataset

For Hydroregion 13, state certified versions of the Watershed Boundary Dataset (WBD) were 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 – 07/31/2006 – Drainage Area

NHDPlus drainage area estimates for the Rio Grande are consistently lower than the gage drainage area estimates. This appears to be primarily due to a large area in the northern portion of the Rio Grande basin that is not included in the NHDPlus drainage area due to (1) a large area of unnetworked canals and (2) an area that has no NHDPlus flowlines. These areas do not contribute to the NHDPlus drainage area for the Rio Grande thus making the NHDPlus drainage areas lower than the gage-based areas.

Data Release Note – 07/31/2006 – Flow

The UROM attempts to compensate for consumptive use by applying only 20% of the HUC-level mean annual runoff on intermittent streams. Both the UROM and the Vogel methods use drainage area as a primary explanatory variable for mean annual flow. There seems to be such a large amount of evapo-transpiration, use and groundwater effects within this basin that the drainage area-flow relationship breaks down. The UROM and Vogel flow estimates, especially flow estimates greater than 200 cfs, should be considered unreliable and used with great caution in this HydroRegion.