

Question and Answers

Conceptual Model and Mainstems Logical Data Model for the 3D Hydrography Program

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Participant Questions:

Based on your description, it sounds like a 100k product is being developed. That's not fine enough for many state level applications?

The network will be as fine as is supported by elevation data (typically more resolved than 24k map scale). However, map scale will not be used to determine the ultimate feature granularity. This question was in reference to the size of **catchment boundaries**. The ultimate target size of catchment boundaries is to be determined but will almost certainly be less granular than the smallest line features. E.g. catchments may not be defined for flowlines shorter than 100m or some other small size threshold. That is, some catchments will have multiple flowlines in them.

Are you considering integrating stormwater data, the subsurface drainage?

At this point focus is on EDH but certainly see a world where contracting arrangement might include subsurface

Steve – it's a long term goal, we've done some pilot work to explore what's required to map urban desert – this isn't a year one goal.

How will data developed at this scale (national) will meet the application needs identified in the Hydrography Requirements and Benefits Study

The objective is to have a national network to overlay and conflate onto more detailed local data. Pilot and test data developed in this way thus far look good. HRBS results showed the highest level of detail with some form of generalization functionality was required by 100% of the Mission Critical Activities. This is what is being pursued. Plus or minus 2 meter horizontal positional accuracy and integrated elevation and hydrography was required by 64% and 65 % of MCA respectively.

Is there a role for rasters such as a flowdirection raster other than as a means to derive catchments? In other words, will 3DHP data include a flow-direction raster?

Current understanding is that the raster data products derived for EDH will be available but unclear how they might be integrating into the 3DHP datasets themselves.

How can we define rules for EDH flow lines to be mapped at varying scales with some level of national consistency e.g. generalization / visibility filter?

This is an NHDPlus High-Res capability (visibility filter) and we have discussed it. Need to bring that back to the team to further explore how it can be supported in a cartographic view of 3DHP data.

Many states have worked to create NHD at better than 24K and HUs at 14 and 16 level. So far, the 3DHP seems to be making coarser information than better information.

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Essentially, are there plans to move away from the scales-based identification of data quality (12.5k, 24k, 100k)?

3DHP base data will not be defined with specific map scales in mind. A cartographic view of the data will support multi-scale visualization, but the exact method of support for map scale is yet to be determined.

What do the conversations about attribute domains look like?

In the interest of sustainability, attributes in the core dataset will be minimal. For example, min/max flowline elevation will be added to data sets when we create use-case specific “views” of the data. Other features can be added for other data “views” as well.

Is there much difference between the mainstem concept and GNIS naming we are already using? (although not complete for all unnamed streams)

In most cases Mainstems will follow GNIS as much as possible for stability and use of identifiers. But we want to allow things to change, to update. Mainstem identifiers will be set up based on the hydrologic network and designed to be as persistent as possible.

Will the EDH part eventually replace all of the NHD part?

Yes, the goal is to replace all the NHD with hydrography derived from 3DEP elevation.