

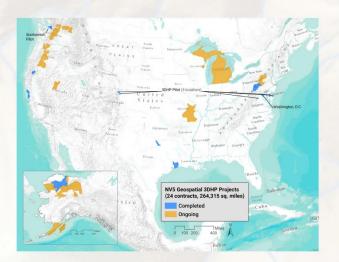
3DHP Program Datasets Development

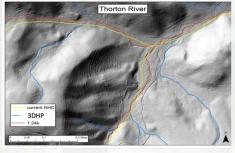
Introduction

Mapping of river, streams and water bodies (hydrography data) is critical to managing water resources. Nationwide lidar collected as part of USGS's 3D elevation program (3DEP) is being used to create a more accurate and current hydrography dataset. Under its 3D Hydrography Program (3DHP) USGS has developed standards for hydrography that will be implemented nationwide to ultimately replace the current National Hydrography Dataset (NHD) and the Watershed Boundary Database (WBD).

NV5 has worked closely with USGS to streamline the creation of 3DHP datasets from both lidar and IfSAR (in Alaska) data. Our datasets meet all 3DHP quality requirements and standards. This results from our technically advanced workflows and rigorous quality control steps that analyze 31 elements of the dataset to ensure acceptance to 3DHP standards. We also understand that each client and landscape is different. So, building on the framework of the 3DHP we can add elements that answer key questions that support state and local decision making.

Working with individual clients NV5 has developed 3DHP data across 12 states and Washington DC, with 24 contracts covering 264,315 square miles.



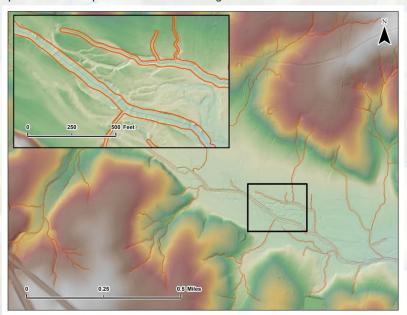




WHY NV5 GEOSPATIAL

- · Leader in 3DHP
- Participated in USGS EDH pilot watersheds
- Developing 3DHP for Alaska from IfSAR
- Developed the first 3DHP and WBD dataset from lidar that incorporated stormwater systems
- Actively supporting partnerships between local, state and federal agencies to promote 3DHP
- Advocate for USGS standards in 3DHP community

Estimate of average bankfull width for each reach can be generated through analysis of channel geomorphology bounding flow paths. While this product is not based on actual hydraulic models or flow return intervals, it does provide a good starting point for delineating riparian areas. The average width of each reach, determined by bank slope analysis, is then buffered and dissolved for complete polygonal representation of probable bankfull throughout the network.



The NV5 Difference

NV5 does not just create 3DHP for focuses on ensuring its useability by the client.

NV5 has developed workflows to meet 3DHP requirements but understands that not all clients and landscapes are the same. So, working with the end user NV5 develops strategies to meet those requirements building off the framework provided by 3DHP. Additional elements we provide include:

- 3DHP compliance reporting
- Data review portal
- NV5 proprietary flowline smoothing routine
- Three options for incorporating urban stormwater systems
- Bankfull delineation to provide estimates of bankfull width for flood and habitat analysis
- Incorporating state and local information to flow lines
- Integration with the national wetlands inventory (NWI) dataset
- Integration with land cover datasets







Scan to view our Interactive Project Map