

3D Geomatics Committee: Hydrogeomorphology Workgroup

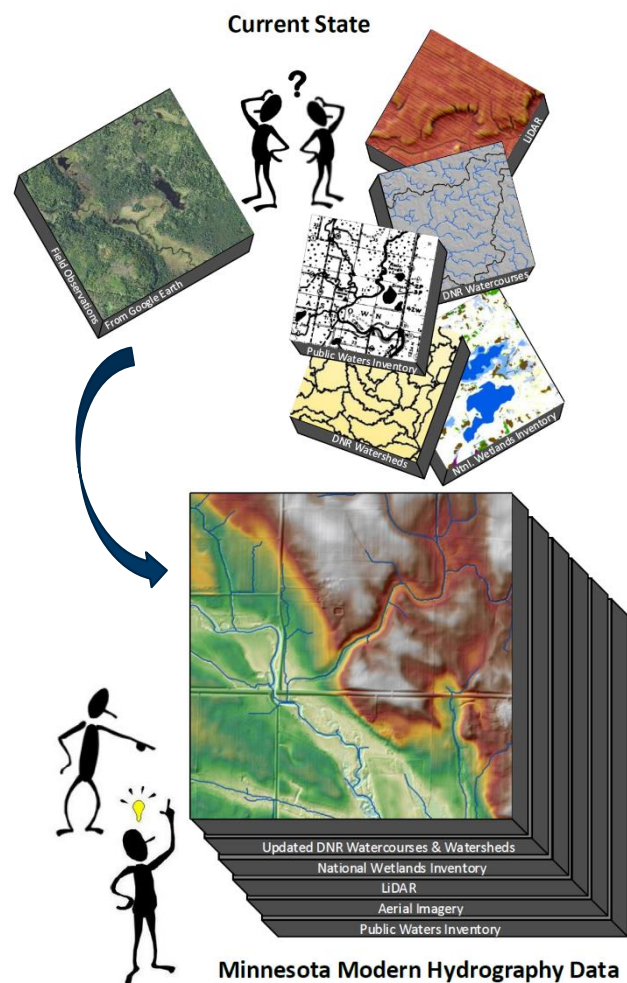
The Hydrogeomorphology Workgroup is continuing work started by the legacy Hydrography Committee with a renewed spirit and commitment to quality hydrography data. The workgroup consists of a group of dedicated individuals representing government, academia, and private sector interests. While representing diverse needs, this group is coming together as one collective voice, speaking to the need for modern LiDAR-derived hydrography data in Minnesota. This will improve watershed management decisions with modern, field-scale spatial data of rivers, streams, lakes, wetlands, and watersheds. This foundational data product will serve as the authoritative source for hydrography in Minnesota.

Where we are now

- Multiple, out-of-sync copies of hydrography data
- Locations of stream centerlines based on historic maps
- Inefficient processes for creating derived data products
- Costly field site verifications
- Missing data that lowers public trust

The Future

- Single, authoritative data source
- Harmonized data that leverages recent state investments
- Automated processes that identify changes on the landscape
- High-resolution data that minimizes field site verifications
- Enhanced public trust in watershed management decisions



Subgroups

Two subgroups are focusing on topics identified by the workgroup as important issues. The Data Catalog subgroup and Breachline Database subgroup were formed to focus on tasks needed in creating new LiDAR-derived hydrography.

Data Catalog Subgroup

Mission: To create an inventory of existing geospatial hydrography data used across Minnesota to help guide the development of new LiDAR-derived hydrography to better serve modern business needs.

Within the next 6 months the Data Catalog subgroup will have a list of data layers widely used in Minnesota, along with information about user needs that are not being met by the existing data. This data will be presented to the Hydrogeomorphology Workgroup to aid them in determining requirements to be able to provide modern LiDAR-derived hydrography data in Minnesota.

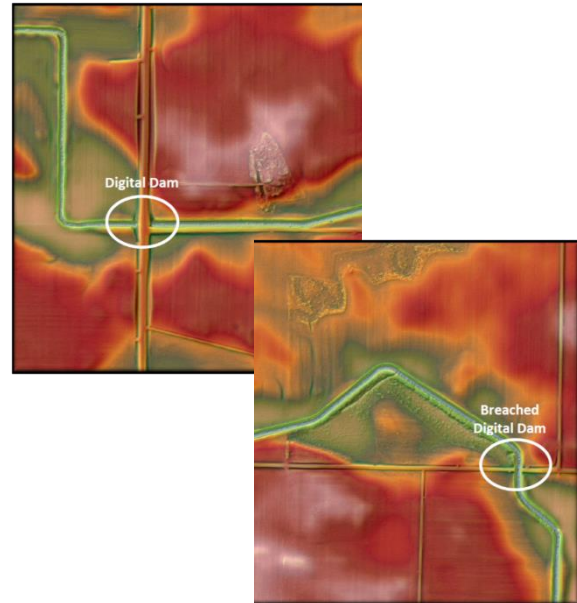


Orange line – existing stream data
Blue line – improved county data

Breachline Database Subgroup

Mission: To develop the foundation for a single, authoritative, digital dam breachline dataset for Minnesota utilizing standards and methodology through collaboration with breachline subject matter experts.

The Breachline subgroup has extensive knowledge gained in building their own individual digital dam breachline datasets and cumulatively, these datasets have hundreds of thousands of breachlines. The long term goal is to publish these features into one authoritative dataset for use in developing hydro-modified digital elevation models (hDEMs) that serve public and private business needs associated with hydro-terrain analysis tools (e.g. PTMApp and ACPF), hydrology, and hydraulic modeling of the landscape.



Contact

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Workgroup Mission: “The Hydrogeomorphology Workgroup exists to promote the consistent development of Minnesota’s hydrography data and to enable data exchange through coordination, cooperation and standards development.”