

## **Question and Answers**

### **Wisconsin:**

## **Lake Superior Culverts and Hydro-enforced DEMs Wisconsin Coastal Management Data Infrastructure June 16, 2021**

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### **Participant Questions:**

**It seems like all of your inventories are points, but you still have to manually draw individual cut lines that may or may not match one-for-one with the inventories, is that correct??**

Yes, if you are trying to make a cutline that integrates well with the raw DEM - connects the low spots on either side of the digital dam - they may not match well with the point inventories. Many times the point inventories are collected with mapping grade GPS, so their locations are approximate. Also, the success of the cutline connecting the flow across the digital dam can be influenced by the DEM resolution. Cutlines drawn on coarser DEMs (2 or 3 meters) don't always line up with the points, or cutlines drawn on hi-res imagery (12", 6", 3") or vice versa.

**Did you share your "better" cut lines back with the original data source provider?**

No, not yet because we don't have the confidence to promote them at this point in time. There's no good archival system for cutlines or derived products. We have a lot of variability in our mapping approaches and the results need better documentation for skill level, intended use, etc.. We certainly share what we have but we don't automatically send the modified data to a data source provides, such as USGS..

**Do you put in a fake cutline to address lidar errors?**

Absolutely. We need to keep the water within the banks. Obstructions such as rocks, fallen trees and beaver dams need to be cleaned from the data. QL1 data is giving us much better information on the bare ground in heavily wooded areas..

**Is your QL1 data hydro-flattened or hydro-enforced?**

Hydro-flattened in most areas, but sometimes we didn't have extra funding for additional breakline placement everywhere (<100ft wide streams) which was too bad.

**What do you mean when you refer to "projects of special merit"?**

It's a NOAA Office of Coastal Management grant aimed at states with a coastal management program, including the Great Lakes. Wisconsin's Coastal Management Program uses their 309 funds for coastal hazard and wetland projects. PSM grants are an additional funding source to enhance state 309 programs. [NOAA Section 309 strategy related projects](#). I encourage others to explore program. NOAA can consider projects that may not be eligible for other funding programs.

**Do you see the new *NOAA Digital Coast Strategic Plan* as a source for funding and project work?**

Yes, in a way. I think the DC plan came out after our initial PSM grant application. But we used various DC core values in our approach, like communities of practice and geospatial infrastructure. It looks like there will be more money coming from NOAA in the future for [communities of practice](#) whether technical or other. It's an exciting opportunity and provides a forum for discussing our work within the context of the broader mission.

**Interview Questions:**

**What was the primary motivation for the project?**

The project was inspired by a coastal mapping workshop held in Chicago in 2017 by NOAA and other federal agencies. We held a similar workshop in Ashland, WI and developed the core project ideas from stakeholder input. From that input, the PSM addresses coastal hazards, and providing tools, data and technical assistance to change local policies related to coastal hazards. As time went on, this became more tightly focused on developing tools for small local road departments (towns, counties, tribes) in better managing culvert data and becoming more resilient. The other PSM critical element was the use of a mapping community of practice. Project website: <https://wicdi.org/>

**During the project, what most surprised or challenged you?**

I am always impressed by the depth of local knowledge and insights they can provide. And how little interaction our state agencies have in these rural areas.

**What additional resources do you think should be developed to support stakeholders in developing, integrating, and managing EDH data?**

Guidance, or at least access to EDH experts would be helpful as we move towards projects to create hydro data in the state.. We're at the bottom of the rung. Our goal wasn't to create EDH but to quickly gain vertical integration with problems experienced at the local level. We developed documentation for NOAA as part of the grant and processes. I think one take away for EDH is that the final hydro data product will only be as good as the amount of effort employed to engage local experts in the design and review of the data collection process.