

Coastal Erosion Hazard Mapping Task Force Meeting Notes

Zoom- April 23rd, 2020 – 10:00 a.m.

Meeting Attendees: Clint Little-MN DNR Coastal Program, Ilena Hansel-Cook County SWCD, Melanie Perello-MN DNR Coastal Program, Derrick Passe-Lake Co. SWCD, Margaret Walkins-Grand Portage, John Swenson-UMD, Scott Gadetka-Bayfield County, Tara Solem-Lake Co SWCD, Tim Nelson-Cook County, Maren Webb-MnDOT, Ross Hoffman-Lake County, Neva Maxwell-Lake County, Jenn Moses-City of Duluth, Justin Otsea-ARDC, Charlie Moore-ARDC

1. Welcome/Introductions

- a. All were welcomed and introduced themselves.
- b. Otsea provided a brief review of the project's goal, history, and status for new attendees.

2. Ordinance Implementation - Lessons Learned-Special Guest Scott Galetka the Bayfield County Land Records Administrator gave a presentation on the work he collaborated on when putting together a similar study and ordinance for Bayfiel County. They received a grant to develop a study which included: 1) Analyze bluff composition 2) Determine recession rate based on aerial photography, 3) Develop stability line based on bluff geology, properties of bluff materials recession rates, bluff height and angle (LIDAR was critical), and 4) Develop Setback rules for new construction based on the derived stability line. He described a setback calculator which utilizes the most recent data to determine the ideal setback but doesn't get utilized if erosion is already visible. The state of Wisconsin annually updates their aerial imagery, which is very helpful for making determinations and having accurate data. He also noted that they broke up their segments via parcel line, which hallowed for a more customizable setback line to be determined for the parcel itself, which he found valuable. Drones have also been deployed to help get accurate data. The map provides guidance for technicians who visit sites, where final determinations of setbacks will be, since data inaccuracies, and other issues can influence the line. A mobile device can show in real time where the technician is on the map, which has also proven to be valuable. Additional resources were referenced n the slideshow presentation which was sent out to the CEHM team.

3. Methodology Discussion- Charlie and Melanie outlined his analysis to date and outlined some of the questions that they have for moving forward with the analysis. To begin the analysis, you must digitize shorelines, where the water touched lands and used on to create a baseline which will be used by DSAS to determine the rate of recession. DSAS then generates transects, which must be manually aligned to increase accuracy. Digitizing shorelines has proven to be very time consuming, even for a small segment due to the unique geography, so the entire analysis will be tedious. Specific guidance for different sorts of shorelines based on the hardened shoreline data recently produced by NOAA will be critical to completing the entire shore analysis accurately, as it is expected multiple people will be working on the project. Questions they had for the group included: how we determine where the shoreline is? (High water mark or the wet/dry line) As well as how we address built structures/vegetation lines. Bluff edge seemed to be considered the most important factor for shoreline, since the rest is moving constantly via sediment transport. After additional discussion, it was determined that an additional technical group meeting would be needed to discuss these and other issues. Melanie would follow up with a doodle poll.

4. 'CHAOS' -Community of Practice Update -Melanie gave a brief update that the first meeting of the CHAOS group will be held on April 29th from 2-3 p.m. Presentations will be recorded and available for viewing later if you cannot attend. The scheduled presenters include: Deanna Apps, US Army Corps of Engineers Detroit District, Great Lakes Water Level Updates and Dr. Joseph Moore, National Weather Service-Duluth Office, Improve Lakeshore Flood Forecasting.

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A registration link and newsletter should've been sent out to the entire group, please contact Melanie if you did not receive this and would like one.

5. Data Update

- a. Ross mentioned he would provide the Lake Co 2019 Data to the group. Uploading the imagery to the GIS page so people can download it into arc map and will also be able to view in parcel viewer. Making link available on site.

6. Other Partner Updates

- a. **Clint**-outlined a recent 3-d geomatics meeting and Statewide LIDAR acquisition plan group who mentioned making an effort to collect lidar for Rainy Lake being paid for through federal grants . To save money they may also look at acquiring the Lake Superior area and currently have a LCCMR proposal moving forward.

7. Future Meeting Location

- a. Set for Wednesday May 27th 10:00 a.m.- Virtual Format

8. Next Steps

- a. Technical meeting.
- b. Methodology finalization.
- c. Determine additional test sites
- d. Begin analysis at test sites.