



LAKE COUNTY
Soil & Water
 CONSERVATION DISTRICT
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COOK COUNTY
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Lake Superior North Watershed 1W1P

Lake County Law Enforcement Center (LEC)
9:30am – 12pm

Coastal Erosion Hazard Map Project Meeting

613 3rd Avenue, Two Harbors, MN 55616
August 31, 2018

Conference Call-in: Jennifer Nelson (State Hazard Mitigation Officer)

Attendance: Ilena Hansel (Cook SWCD), Erin Loeffler (BWSR), Julie McDonnell (MN Coastal Program), Steve Robertsen (City of Duluth), Charlie Moore (ARDC), Stacey Stark (UMD Geospatial Analysis Center), Clint Little (MN Coastal Program), Neva Maxwell (Lake County Env Services), Christine McCarthy (Lake County Env Services), Justin Otsea (NSMB, ARDC, City of Two Harbors), Sonja Smerud (Lake SWCD), Ross Hoffmann (Lake County – GIS), Kate Kubiak (So St. Louis SWCD),

Documents: Agenda, minutes from last meeting, draft work plan, notes on data, draft budget

Key Objectives reviewed, identified at previous meeting in June: tool used to identify if an area is developable; a lake superior guide to living in the coastal zone; common recommendations for all St. Louis, Lake and Cook Counties properties owners regarding conservation concerns/hazard erosion areas; accessibility of tool for use by different audiences; map-based interface for erosion, website access; available or budgeted to be updated/additional ground-truthed information added.

Some further discussion occurred about details of hazard planning that exists – outdated in Lake County, limited in St. Louis County.

Stacey Stark – County Hazard Mitigation Plan –

- UMD Geospatial Analysis has a contract with the state to work on state and county hazard mitigation plans. Starting in December they are starting on St. Louis County Hazard Mitigation Plan. Assessment of Natural Hazards that can affect a county/jurisdiction (flooding, extreme temperatures, winds, storms, tornadoes, historical current data, climate change) > establish a projection of risk for those hazards to occur in the future. Can conduct economic analyses as well. The jurisdictions and the point of the plan is to get together stakeholders (county, city, SWCD, USFS, DNR), anyone who has a responsibility in protecting property.
- On whether this is mandated – states have to submit these acts/plans to FEMA in order to receive funds for mitigation, approve/update state plan every 5 years. (example: 2012 flood, 25% of the funding is supposed to be spent on mitigation, and those funds can go to any jurisdiction – not necessarily where the disaster occurred).
- Strategies – training, culvert repair, river restoration, metal roof/firewise program, outreach, safe room. To apply for these grant programs you need to have an erosion hazard plan in place. Actions of this state group and stakeholders are what mitigation actions should look like, both by county and statewide.

- Hoping Stacey’s work can help elevate what this group is doing. State would like to use information developed by this group (coastal erosion), and share information.
- Vulnerability section and action section in hazard planning. Eligible for hazard vulnerability grant funds.
- Coastal Erosion is a newer problem from the Twin Cities Office – top four statewide have previously been wildlife, straightline winds, and flooding. Rank top four based on FEMA expenditures. Hwy 23 Jay Cooke State Park landslides included FEMA funded. Silver Creek and Lafayette Bluffs from landslides in the ‘80s have tunnels built to prevent hazards. Could reprioritize state funding allocations based on coastal erosion. Some mitigations in Duluth with 4069 disaster. Mostly focused on wildfire to date.
- Funding eligible from presidential declaration of a natural disaster, anyone eligible beyond declared. Pre-disaster (PDM and FMA) nationally competitive mitigation grants (75% federal dollars and 25% local) for PROJECTS not planning. Potential funding for education and outreach – notification of funding opportunity just came out, applications October 1-Jan1. Begin work after congressional appropriation, a year later for funding. State agencies and LGUS eligible to apply. Private non-profits not eligible. BWSR can apply on behalf of SWCDS/Watershed Districts.

Existing Data –

- Large spreadsheet of data sources from initial 1W1P creation, Coastal Erosion Hazard Resources (Notes on Data – more updated since 1W1P creation) – see attachment with hyperlinks
- Add: FEMA Great Lakes Coastal Field Study, will send out with hyperlinks
- Carol Johnston NRRI Early 90s/late 80s erosion hazard map aerial photography (erosion rate 1foot/year) is current base for mapping. Need to update and keep erosion hazard maps updated. Some areas need to defend erosion hazard rates in court (Duluth Township).
- BWSR Community GIS Workshops and Data gathering in the ‘90s (shared via CD).
- Climate data – PRISM data (U Oregon), SNOW RULES project w/more intense climate monitoring grid. (localized precip)
- See other data sources in attachment. Clint reviewed and highlighted certain data sets.

Existing Data - Data GAPS

Site data from technical assistance (SWCD or County or City) – outcome: standardize site visit data (between counties and SWCDs)

- Put parcel number in, highlighted as an erosion issue, LGUS map with site visits
- i.e. 150foot shoreline, 50 foot of which is eroding
- Coastal Hazard Zone “Point of Sale” – homeowners aware at purchasing
- Every property in the erosion hazard area is recorded with the recorders office (like easements), so if they were to check a purchaser could see that information
- Turnover – 15 landowners in Lake with site visit data, Cook SWCD has standard coastal erosion data sheet for site visits

High resolution aerial imagery for the whole shore – NOAA includes only Silver Bay, Two Harbors, and Tac Harbor

- Update: Lake County flying Spring 2019 for aerial imagery – data available 3-4months later - (bidding next week) (4 band, natural color imagery, likely 6in across the County); possible LiDAR inclusion depending on partners; working with a state contract program; pictometry would be nice but funding dependent
- St. Louis County pictometry 3 year updated – slated for 2019
- Lake County parcel update: 99% redrawn in last 2 years
- Highway and SWCD culvert inventory – length, diameter, type needs to also be included
- What year things are collected – St. Louis 3 year updates and have 3 sets
- Prioritize private lands gaps
- GLRI funded USFWS project monitoring wetland changes (Brule River video examples) (Brian Hubberty + Dan Hines high resolution drone imagery), include point cloud and digital surface model)
- University of Minnesota or NRRI (Trevor Host, George Horst) – special permitting and legal coverage
- Surveyed benchmark and erosion rate (point data set rather than a “line”, one domain is the rate)
- Goal: get landowners involved in stewardship of their own shoreline
- Building footprint data
- NSMB digitized building footprints within the boundary area
- USFS hydrospectral imagery in partnership with Lake County / Bill Nixon

Review of Budget

- Based on estimate, skeleton
- How much additional funding do we need to apply for from Coastal Program? Who applies?
- So. St. Louis SWCD is committed to providing some funding toward the project.
- NSMB in existence to provide guidelines and advice. Provide and apply for coastal grant/fiscal agent.
- Geospatial Analysis – could do portions of the mapping under the guise of the state hazard mapping
- Feedback – target specific areas, and do a pilot of small areas to demonstrate project outcomes
- This money is for implementation of conservation projects to benefit water quality, and that needs to be considered for spending.
- Accomplish Task 1 and 2 with current funds, and apply for grant for later funds.
- Apply for PDM/Outreach and Ed Grant.

- Who Administers and updates information? Counties? NSMB – agreement administering for City of Duluth? 2 year maintenance intervals?
- Tool online that counties contribute updated data to/parcel data
- Arrowhead GIS Group
- Scenario: North Shore Management Board owns data and administers through ARDC, data developed through this group/LSN1W1P (Justin will follow up)
- Existing standards cover urban and rural erosion risks
- Coastalhazardwheel.org – open platform for erosion hazard mapping

Action Steps

- 1) Need to rise coastal erosion within state hazard planning – accomplish this by communicating landowner concerns to Stacey to incorporate in the county and state hazard planning (ACTION ITEMS – LAKE, S. ST LOUIS, COOK SWCDs); review coastal erosion section of plan and provide input during public review of erosion plans; how we can partner with Stacey in her development of other erosion maps
- 2) What are we actually charging to the current 1W1P CWF grant? Display information from this mapping effort at the coastal erosion mapping process.
 - a. Meet with more stakeholders
 - b. Larger conversation with ARDC and NSMB
 - c. Keep in touch with Stacey/partner with UMD Geospatial Analysis Center
 - d. Apply 2020RFP Coastal
 - e. Define tool outcome
 - f. “this served x property value/real estate value” > outcomes reporting
- 3) End of September/beginning of October

AGENDA

1. Existing Data (to determine budget) – 45min
 - a. List and finalize existing/needed data sets – 15min - Clint Little, MDNR Coastal Program
 - b. Data Gaps – 15min - Open
2. Budget – 45min (break if needed) – Ilena Hansel, Cook SWCD
 - a. Review draft
 - b. Review template/draft workplan
 - c. Discuss need for consultant/RFP process – Erin Loeffler, BWSR as needed
 - d. Need/allocation for coastal grant (\$45k LSN1W1P already secured)
 - e. How much time? How much work?
 - f. Drone or additional data collection?
3. Outline Work Plan and task force meeting schedule – 30min – Sonja Smerud, Lake SWCD