

Agenda: 3D Geomatics Committee Hydrogeomorphology Workgroup

Date: 9/10/2019
Time: 10:00 a.m. – 11:00 a.m.
Location: Skype online meeting



I. Attendance | Hydrogeomorphology Workgroup

Accountable: ~~Ann Banitt~~ (ACOE); **Andrea Bergman** (MNIT@DNR); **Jen Crea** (MNIT@MPCA); **Matt Drewitz** (MNIT@BWSR); **Tyler Grupa** (MNSU-WRC); **Tom Hollenhorst** (EPA); **Brandon Krumwiede** (NOAA Affiliate); **Rick Moore** (MNIT@DNR); **Sarah Porter** (EWG); **Christiane Roy** (USDA-NRCS); **Kiah Sagami** (HEI); **Jamie Schulz** (MNIT@DNR); **Sean Vaughn** (MNIT@DNR)

Informed: ~~Lyn Bergquist~~ (MNIT@DNR); ~~Joe Brennan~~ (USDA-NRCS); ~~Whitney DeLong~~ (UMN); ~~Chuck Fritz~~ (IWI); ~~Ben Gosack~~ (DNR-EWR); ~~Kevin Hanson~~ (ACOE); ~~Keri Hedin~~ (Fond du Lac); ~~Brian Huberty~~ (USFWS); ~~Jacqueline Kovarik~~ (ACOE); ~~Alan Laumeyer~~ (Goodhue Co); ~~Rick Lorenzen~~ (MNIT@DNR); ~~Grit May~~ (IWI); ~~Joel Nelson~~ (UMN); ~~Doug Norris~~ (DNR-EWR); ~~Jill Pohjonen~~ (DNR-EWR); ~~Emily Resseger~~ (Met Council); ~~Ben Richason~~ (SCSU); ~~Casey Scott~~ (MPCA); ~~Aaron Spence~~ (BWSR); ~~Angus Vaughan~~ (MPCA); ~~Jeff Weiss~~ (DNR-EWR); ~~Barbara Weisman~~ (DNR-EWR); **Andy Williquett** (MNIT@DNR)

Guests: **Clint Little** (DNR)

II. Steering Team and Subgroup Reports (15 min)

- Thanks everyone for attending the meeting
 - Jeff Green's presentation will in December
- LiDAR Acquisition Update – Sean
 - Monthly update for LiDAR Acquisition
 - Put a great deal of time in – still needs to write the state plan
 - Acquisition Documents on the SharePoint Site
 - Lidar plan – Minnesota Development
 - Working on getting the plan written
 - Stakeholders can see the progress made
 - Hoping to have a completed draft form for the conference.
 - Drumming up interest for the conference
 - Outreach
 - Panel outline for presenting data to the stakeholders at the conference.
 - Sean, Jennifer Corcoran, Collin Lee and Gerry Sjerven will be discussing
 - Storymaps on the Agenda - Would like to put together a story map, need to work with MnGeo to do so. Goal is to have it done for the conference

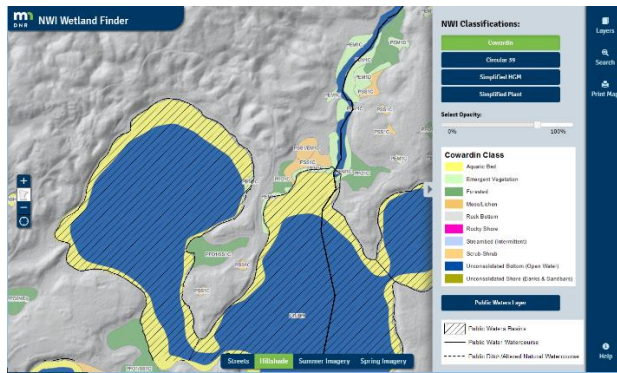
- Breachline Subgroup updates – Rick
 - Updated Map to include files supplied by Kiah Sagami from HEI.
 - Thief River has data – Contact Ashley Hitt from Red Lake Watershed District
 - Listed Accomplishments from the past year
 - Hydro-modification Community Collaboration
 - Digital Dam Breachline Database Workflow and Business Model Diagram
 - Standardized Attributes
 - Breachline Methodology and Protocol
 - Central Authoritative Map
 - Discussion on Completeness and how we can verify completeness
 - hDEM Standard – provides detailed policy like language for hDEM Development
 - Is there a methodology to verify flow paths are in the channels?
 - Determine Completeness – Our goal is to establish a clear and defined way to determine hDEM Completeness through evaluation/certification
- SharePoint Permissions – Andrea
 - Working on getting access to the group – working with the MnGeo group who administrates the site.
 - Working with Allison Slaats to get the permissions worked out
 - Three tier access
 - Informed – see the site
 - Accountable – access the site and provide documents, make modifications
 - Co-chairs – everything
 - Prevent accidental deletion or modification of documents
 - Track when changes are being made on documents to update
 - Sean – DNR sites were created but no support because no single administrator
 - Switched the site to MnGeo due to 3D Geomatics Team – we are a subgroup
 - Meetings have been switched around a bit but will be meeting on 9/16
 - Will send out an update and possible permissions if we work out the details.

III. Current Projects of Interest: NWI Applications – Andrea (30 min)

The DNR released the final statewide National Wetlands Inventory (NWI) update in May 2019. Two web applications were developed to help users interact with these data:

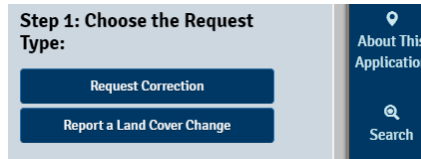
- Data Stewardship for the National Wetlands Inventory
 - NWI release May 2019, available on the [Geospatial Commons](#)
 - Ten year, multi-agency collaborative effort
 - First statewide update since the original inventory done by USFWS in late 1970's/early 1980's
 - New Maps reflect the latest technology in remote sensing and mapping, including high resolution aerial imagery and LiDAR
 - Delineations are better defined due to improved data for delineation
 - Can't directly compare the old and the new because of changes in mapping methods and improvements in mapping technology and classification techniques

- This disclaimer is stated in the [metadata for the historic NWI](#) (1980-1986) 'Use Constraints'
- [Wetland Finder](#): Public data viewer released about a year ago
 - Web based application/viewer
 - Identify Wetland polygons
 - Obtain DNR and BWSR contact information
 - Print PDF map
 - The application allows user to adjust opacity to see underlying basemap and delineations
 - If the wetland is part of the Protected Waters, it will give a link to the DNR Hydrologist
 - If the wetland is not a Protected Water, it will give a link to the BWSR contact
 - Matt Drewitz – BWSR WCA sites – the BWSR contact link takes it to a PDF document that lists all the BWSR staff - need to scroll down to the county that is needed. Will consider adding a cover page to that contact document.
 - Printing allows outside users to print a PDF for a possible permit request

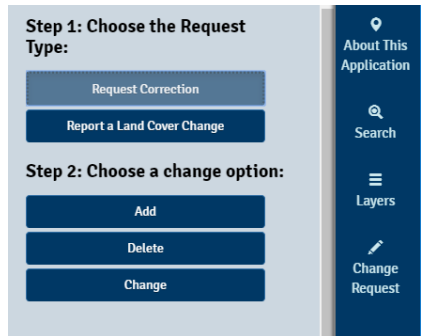


- [NWI Change Request](#): User account based application to maintain data currency and data stewardship. Official release coming soon!

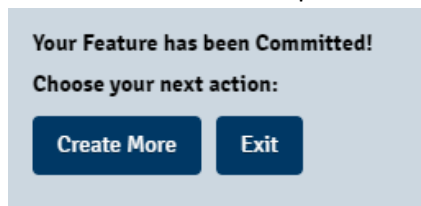
- Primary Concern: how to maintain the accuracy and currency of the data?
- Web based NWI Change Request application allows registered users to request changes or updates to the NWI
- A data governance structure is in place for data stewards to review the record of change requests and apply accepted changes to the dataset.
- Audience – wetland specialists from:
 - Soil and Water Conservation Districts
 - Watershed Districts
 - Other local governments
- Submitting NWI Change Request
 - Step 1: User chooses to:
 - Request Correction: Choose this to identify an error in the published data
 - Report a Land Cover Change: Choose this to identify where a change in land cover or land use since data publication requires a data change (e.g. wetland creation, wetland alteration)



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- Step 2: User chooses change option
 - Add: Add a new complete wetland or add additional area to an existing wetland
 - Delete: Delete all or a portion of a wetland
 - Change: Change an attribute about a wetland (e.g. Cowardin classification code)



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- Step 3: User outlines feature on map
- Step 4: User is required to enter a comment explaining the nature of the request
- Step 5: User chooses to 'Cancel' or 'Submit Request'
- Step 6: User can create more requests or exit



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- Users can **view** submissions from all users
- Users can Edit or Delete their request IF the request is still Pending Review from DNR Staff
 - Requests are locked once status goes to 'Under Review' by DNR staff
- DNR staff review requests in ArcMap/Pro
- Business Data Steward enters decision, user, data, comment
- Technical Data Steward applies any approved changes to data
- All approved changes are incorporated in an annual NWI update
- Question from Clint Little: How will this application handle forest harvest in forested wetlands? i.e. black ash harvest for emerald ash borer or larch stands harvested due to larch beetle activity? In theory, some of these wetlands will respond to the harvest activity and change the wetland type...
- Clint: Also along the north shore where pipelines split a wetland, it does not include the wetland – the Change Request will allow the user to tackle this as they are working with the data.

- Changes to Land Use – Areas that have been built up in the past few years since the data used to create wetlands was used, there may be areas that need to be changed.
- Comment by Sean Vaughn: Thinking of the digital dam breachline database and flow path creating from those features, I envision that a very similar change request web application and process for hDEM development could be created.

Next meeting: Volunteer?

IV. Data News (5 min)

- Buffer map release
 - Released new Buffer Map on 9/9/2019
- Trout Stream rule update
 - Comment period has closed – hope to get updates to the GeoCommons within a month
 - Mostly just some small changes

V. Meeting Schedule – keep October meeting (5 min)

Homework for GIS/LIS attendees: As you attend sessions, please keep in mind or document for our meeting.

- Session highlights
- Favorite presentations
- Tips and tricks you learned
- Did you attend any sessions that demonstrated work that could benefit from updated LiDAR or LiDAR-derived hydrography?
- Sean: Sent a note to Dan Ross – all work that we are working towards is creating new hydrography – LiDAR can create new hydrography – accurate hydrography – we need to remind technicians, stakeholders and decision makers that we can create new hydrography, highly accurate hydrography from LiDAR. We need to bring money in for hydro-modification, create hydro-modified DEM's and eventually accurate hydrography – flowpaths – streamlines.

Future Meetings

Date: 10/8/2019

Time: 10:00 a.m. – 11:00 a.m.

Location: Skype online meeting

Agenda items: (submit proposed agenda items to [Jamie Schulz](#))