Minutes from the National Technical Committee for Hydric Soils (NTCHS) Annual Meeting
Fairbanks, Alaska
September 15 – 17, 2015

Tuesday September 15, 2015

Meeting was called to order by Lenore Vasilas (Chair) at 8:05 am Tuesday, September 15, 2015.

- Introductions: Those Present
  - Lenore Vasilas
  - Chien-Lu Ping
  - Richard Griffin
  - Mark Clark -Retired PNW Director
  - Steve Monteith
  - Mary Ann Thiesing
  - Mike Vepraskas
  - Jacob Berkowitz
  - Chris Noble
  - Aaron Miller

    Those phoning in….
  - Wade Hurt
  - Ralph Spagnolo
  - Jennifer Wollenweber
  - Paul Rodriguez
  - Tony Jenkins
  - Karen Vaughn- New Member
- Last Year's Minutes
  - Follow-up meeting to discuss proposed indicators from U of Maryland
  - Red Parent Material –collecting more information
  - Created Test indicator for Red Parent material
  - Follow up with Curtis Monger regarding SDJR issues/NASIS data population
  - Chris moves to accept minutes as provided, Richard seconded the motion
  - All in favor—unanimous
- NRCS updates
  - Lenore--Removed labels for hydric ratings, did not change report function
  - Steve Monteith—KSSL Working with Marty Rabenhorst on Color Change Propensity Index (CCPI), grad evaluating different parent materials throughout the country using the CCPI to locate areas containing problematic red parent material; IRIS tubes are continued in production for NRCS and cooperators, 2016 National Wetland Condition Assessment (NWCA) with EPA still on, trying to hire technicians to handle extra workload; AG water management team lateral effects subteam, input of soil data for DRAINMOD for calculation of lateral effects, data management queries in NASIS; working with NE states on Calcareous

soils in western NE, associated with floodplains of Platte River in W. NE, have wetland veg, water levels appear to be hydric, do not meet indicators, chromas meet 2 or 3 but no redox features that make indicators, wells installed in July, preliminary data, pH 8.5, CACO3 5-15%, EC over 5, one site had redox accumulations but also saltiest site, IRIS tubes to be installed; .

- Paul Rodriguez—hydrology tools publication coming out soon, revamping companion course to match updated manual. Training will be available in 2016.
- Jennifer –Legend Changes due to SDJR, Hydric Training in MN-problem is that in Prairie Pothole Region staff use public soil survey to identify hydric soils and not going to sites-policy states they can use soil survey in lieu of on-site determination, likely underestimated wetland acreage being delineated from remote determinations,
- Tony Jenkins—New England Hydric Soils Group meeting tomorrow, looking at soils in field in NH, putting out version 4 of NE indicators soon, want to incorporate New England Red Parent Materials Indicator that we rejected due to lack of supporting data,
- Aaron Miller—results of Tularosa Basin Hydric soil study. Would like more support from National to continue study, another round of IRIS tubes in select locations. Steve M. offers to help.

- EPA Issues
  - Mary Ann—publishing results of 2011 National Wetland Condition Assessment (NWCA) soon, will forward the report soon when its ready; working in cooperation with NRCS in 2016; clean water rule: several states filed lawsuit to block it, consolidated suits, preliminary injunction, so clean water rule not effective in several states and will be a challenge to implement; there is a Q and A website on how to implement;
  - Ralph Spagnolo—series of webinars on soils nationwide dealing with hydric issues such as NWCA and mitigation issues that will improve data collection and consistency and uniformity in the process.
- USACE
  - Chris Noble, Jacob Berkowitz—Chris Noble is retiring soon, to be replaced by Jacob Berkowitz; “soon” to be released updated 87’ manual has no real planned date for its release, at least until clean water act issues are resolved; developing automated data forms for all supplements, do calculate hydric soil indicators based on inputs for most indicators, hope to be posted to Corps website for general public access. Red Parent Material study—trying to identify areas across the country where indicator F21 could be used, if you see red soils contact the Corps and get a sample to submit.Jacob will send a sampling kit with return shipping paid.) The product will be a GIS layer for the US that will assist with use of the CCPI indicator, these identified areas will be included as F21 testing locations.
- BLM
  - Ronald McCormick—soils strategy written and to be released soon that will ramp up their soils program (hopefully); interagency ESD development with NRCS and USFS, implementation plan at 90% draft at this point.
- Field Trip discussion
  - Jacob Berkowitz—reviewed the AK hydric soils indicators.
  - The busness meeting ended for the day at approximately 1200. Commettee member traveled to the Army Corps of Engineers permafrost tunnel near Fox, AK and were let on a tour of the tunnel by ???

Wednesday

- University Updates
    - Mike Vepraskas--Wetland Soils textbook…all changes and edits have been made and it is in final production. Dave Lindbo moved on and NC-State looking for some staff to teach courses
    - Wade-sent his report…
    - Karen Vaughan—Use of IRIS panels—advantage of increased surface area to work with, easy to measure, hard to install, FeS marks on plates can be used as an analog to anaerobic conditions.
    - Richard Griffin—doing more teaching, spatial variability of redox features in sytems that are mounded; continuing work on red dust from west Africa, has a ferrihydrite component; field trip report, NCSS meeting in Duluth, had really red soils, saw a soil that would make vertisols but bright red soils with Mn component with moderate reaction with H2O2, saw roadcuts with Mn discharge, profiles had Fe/Mn nodules in place, in downslope systems with sloughs there is Mn line that acts as watermark. Mike wants to know if there is a quick field test to ID FeS in situ before the black colors disappear in profile. Karen suggests to just wait to see if it disappears, or put HCl and you should be able to smell the H2S gas.
    - Chien Lu—MRIS and IRIS in Aleutian Islands to test on remote sites hydric soils, they returned a week later (acidic andisols) both tubes reacted positive with 60-70% loss of pigment. MRIS more than IRIS. Also in SC-AK in oxyaquic spodosols, both tubes installed for over a year, less than 5% loss in tubes. MRIS tube reacted in sites near artic circle with higher pH and MRIS tube reacted but not IRIS tubes. Disturbed by definition of Histic Epipedon in field where organic soils on slopes are not saturated either (Folists). Do we call these Histic? We will see some problem sites today. In terms of mesic Black Spruce Forests those organic horizons form in absence of saturation, but when they become permafrost again, they do eventually become saturated and are hydric.
- FWS
    - Rusty Griffin- --release of new document moving forward reclassifying new mapping conventions for wetlands data updates. Not in business for creating wetland maps but will provide quality control and support for those folks that wish to do so. New NWI data for Chesapeake Bay available on Oct 1.
- Use of alpha-alpha strips in hydric technical standard
    - Tech note does not specify how strips are to be used to meet the tech standard. Discussion as to how we would document whether 60% zone reacts to dye. Richard suggests that at least 3.6 inches of a 6 inch zone would be 60%. Lenore suggests 3 of 5 strips react in 6 inch zone, Wade seconds this idea. All in favor (unanimous agreement).
- Discussion of Tuesday Field Trip—Went into ACOE permafrost tunnels and saw ice wedges in place. Then we observed soils above the tunnels and saw hydric soils that met F3 and with some also meeting Alaska Redox with 2.5Y. Long discussion for why F3 does not work in AK where they show reduced morphology without saturation. Discussion is whether the F3 does exist but soils are not wetlands due to lack of hydrology. Also, saw and discussed soils that have organic sphagnum epipedons but not developed during saturated conditions.
- Field Trip for today.

- Mark Clark, UAF—"Hydric Soils AK Issues"— We looked at several sites with both non-hydric and hydric soils near Fairbanks. Generated discussion around whether or not AK should approve some indicators such as F3 and whether indicators like A11 and F6 should remain testing. Also discussed whether the AK-state indicators were needed at these sites.

Thursday

- Hydric Soil technical standard—Data submission requirements for Field Indicators.
  - Chris Noble—Discussed language for usage of alpha-alpha dye and paper strips.
  - Jacob B. offered to make an investigation into the proper use of the paper strips.
  - Aaron M. would like to ignore dimensions of paper and use matching requirements to that of alpha-alpha so that expert decides what is needed to meet the 60% of horizon reduced requirement
  - Mike V. suggested that there is an implication there is only 3 weeks saturation data needed to meet tech standard, this should be removed. Also wanted to suggest that regionally specific data requirements be spelled out to the community in a formal manner.
  - Any comments regarding this draft need to be send to Chris by the end of next week (September 24th, 2015).
  - Mike V. wants to make sure this document is accessible to the community.
  - NTCHS will publish this document and post on the official website.
- IRIS Tube Standard Issues
  - Steve M. –no maximum amount of time is specified for use of IRIS tubes investigation. Are there some issues that arise from not making this addressed in the literature?
  - Lenore mentioned a study showing that IRIS tubes might need more than 2 weeks to strip the 30% needed, data is not yet complete for this study and we may have more complete data next year to have a better discussion on this issue.
- Hydric Soil Technical Standard
  - Chris N.—presents the removal of the data collection methods from the HSTS. Intent was not to eliminate any critical element of the HSTS, just photos and data presentation suggestions.
  - Mike V. –does not feel that there is enough information in this stripped-down version, would rather see the original document version.
  - Lenore proposes combining the two tech notes into one tech note with two sections: a hydric soil technical standard section and a methods section.
- IRIS tube evaluation
  - Steve outlines an objective method to measure IRIS tubes following their data collection.
  - Karen V. shared a diagram that clearly shows how we should interpret the IRIS tube data, comments were made to include this diagram in the HSTS.
- SDJR
  - Lenore talked about his yesterday and will talk to Curtis Monger about possible resolutions.
- Surface Depths for Indicators
  - Mike wants confirmation on why we have different soil surface datum points and how we interpret this for the purpose of indicators
  - Lenore will talk to Wade to get clarification on the intent
- Other issues

Mark C.—wanted clarification on why the color requirement is present in A2. Lenore suggested making additions to the AK regional supplement user notes to clarify for Alaska. Also, inconsistencies in definition of hydric soils between Regional Supplements to the Corps ofEngineers Wetland Delineation Manual and NTCHS Field Indicators. Requests we make the definitions the same so there is clarity on the intent. Jacob will address this issue pertaining to the chronology of relict features, changing wording from "recent" to "former" to match the Indicators.

- Chien Lu is retiring—we would like to keep an AK member on the committee. Will approach USFS for a recommendation.

- Next year meeting
  - Lenore sees upper Midwest or Nebraska/S. Dakota that we need to address. Platte Valley with braided streams adjacent to riparian settings. Hydrology is being monitored, indicators are not being met, calcareous soils (5-15% $CaCO_3$), Mollisols, Inceptisols, pH > 8.5, some salts at surface, definitely wet with veg and hydrology. Data will be collected this year.
  - Mike motions to hold it near Scotts Bluff. Unanimous approval.
- Review of yesterday sites
  - Observation data from yesterday
    - Site 1 on Nenana Rd. 20% slope, Folist , NIM. Only chromas of 2 or less found in organics near the surface.
    - Site 2 UofA Potato Field by tree. NIM. 10YR 3/3
    - Site 3 UofA Potato Field hollow. Met F6, 2.5Y 3/1 with conc. Some seeping into pit.
    - Site 4 UofA open T-Field toeslope. Met indicator F3, 2.5Y 4/2 with conc
    - Site 5 upslope of site 4 50 yrds, convex. NIM.
    - Site 6 downslope of site 4 50 yds, some water ponding at surface. F3 met, 10YR 4/1, 4/2, 5% conc.
  - Clearly indicators are forming here and there is no concern here about the ability to use established indicators, the AK indicators did not identify hydric here. Suggests that F3 should be considered for use for testing in AK.
  - Chris N. motions to add F3 as test indicator for AK. Mike V. seconds motion.
  - Committee requests there be a data collection effort in AK to test F3, as well as several other test indicators that are not currently being used in AK, as approved indicators.
  - All in favor of making F3 test indicator. Motion passed
  - Chris N. would like to recommend removal of A10 as a test indicator for AK.
  - Seconded by Richard G., All in favor, motion passed.
  - For the purposes of identifying an currently established indicator is accurately used in another LRR testing area meeting the indicator only needs to be done and a more rigorous transect that is needed when establishing a new indicator is not needed.
  - Lenore motions that a new version of the NTCHS Field Indicators be revised, published and printed. Chris N. seconds motion. All in favor, motion passes.
  - Aaron M. would like the committee to consider the combining of F9 and F3. Motion to remove F9 from the indicators. Chris N. seconds the motion. All members accept, motion passes.
  - Motion to end the 2015 meeting, second. Meeting ended 12:15 AK time.