

WBD Steering Committee Notes

November 4, 2016

10 a.m. PDT, 11 a.m. MDT, 12 p.m. CDT, 1 p.m. EDT

Attendees:

USGS- Vicki Lukas, Al Rea, Kim Jones, Pete Steeves, Dave Blodgett, Elizabeth Stevens-Klein, Susan Buto, Ellen Finelli, Rebecca Anderson

NRCS- Steve Nechero, Laura Davenport

EPA- Wendy Blake-Coleman, Tommy Dewald

USFS- Mike Eberle

1. **Welcome and Introduction** (*Sue Buto*)

a. Introduction

b. Governance

- i. Overview of suggestion to merge NHD and WBD governance structures presented in previous two meetings.
- ii. OWI, NGP, and NRCS senior management have been approached and are supportive
- iii. A final decision has not been made and the structure of the proposed group has not been determined but will be up for discussion at the NHD Manager's meeting in Reston Dec 13-15. Steering Committee members will be invited to participate
- iv. A proposal to dissolve the WBD Steering Committee will need to go to the Subcommittee on Spatial Water Data for a vote
- v. Questions?
 1. Will there be call in number for the meeting?
 - a. A: Just started to discuss so no final decision about remote participation

2. **WBD data improvements and updates** (*Kim Jones, Elizabeth Stevens-Klein, Sue Buto*)

a. FY16 data improvement status (*Kim*)

i. Coastal updates

1. Minimum – 8 digit limit to 3-nautical mile line complete for the nation
2. Further discussion needed with respect to inland lakes and nearshore coastal moving forward
3. Islands – surface water boundaries for entire US and territories
 - a. Anything enclosed with a NOAA 3-nautical mile should be represented in WBD. A group of Mariana Islands and chain of uninhabited islands are not currently represented
 - b. Will be incorporated in FY17
4. NHDPlusHR improvements for WBD
 - a. Reviewing Intersections at HU4 level
 - b. Intersections require both WBD and NHD updates and can be difficult to coordinate
 - c. Teams are coordinating to decide on repairs and fix issues
 - d. Refresh phase has not been determined yet
 - e. FY16 – completed regions 2,12,14,15
 - f. FY17 – region 10 (started in 16), in progress 07, 09, 0903 high priority for Canadian pilot, region 16 next,
 - g. Refresh – region 6 started in FY16
 - i. NGTOC students have started
 - h. Tracking status page on HDC page
5. Alaska WBD updates
 - a. AK forest service and NGP grant
 - i. Update AK WBD where major issues between WBD and updated NHD derived from IfSAR exist.

- ii. Task 1 – fix issues along coast – updated to mean high water
 - iii. Task 2 – fix major issues between NHD and WBD. Not enough funding for wholesale updates to WBD. SE AK is done for major conflicts but WBD doesn't yet match the elevation
 - b. MatSu Basin
 - i. FY16 proposal to NGP funded to fix discrepancies
 - ii. Goal is to develop semi-automated process rather than heads-up digitizing
 - iii. Determine optimal smoothing tolerance to remove excess vertices
 - iv. Review and manually update as necessary – braided streams and possibly on coastline will require review.
 - v. Planning to complete by end of December
- 6. Questions –
 - a. Steve Nechero. Great to see IfSAR being used. There is a desire to have updated elevation for islands so now is the time to get it in the planning queue. What is timeline and plans for PAC basin?
 - i. A: For coastal island work we are not planning on update of existing just adding 3-nautical mile line. Updated base information is welcome, however.
 - ii. A: For NHDPlusHR – HI is lower on priority list because EPA used HR NHD data for NHDPlus V2.1. Applies for HI and Puerto Rico and PAC territory islands.
 - iii. Discussion: NRCS State Soil scientist in HI and others been looking for higher resolution data. Get into planning mode two years in advance. Defer to locals for requirements. Daunting challenge due to geography.
 - iv. Discussion: Elevation data for HI for initial NHDPlus was quite poor. IfSAR wasn't of high enough quality.
 - b. Data, Tools and Stewardship support update (*Elizabeth*)
 - i. FY16 at NGTOC
 1. Quite a few versions of tools
 2. Both tool and model changes
 3. Improved FGDC metadata
 4. Efficiency gains – autopopulation of some fields, more tool documentation
 5. In the process of NWIS data loads
 6. Students being trained
 7. Review model change suggestions every 6 months to consolidate
 - ii. Current tools are at 10.3.1. Possible upgrade to a new ArcGIS version this FY after we know more.
 1. Potentially no tool improvements this FY
 - iii. Staged products turned over to staged products team
 1. Reviewing processes then will auto generate on 3-6 week process
 2. Requesting full data model be delivered eventually
 - iv. Stewardship support
 1. California stewardship – statewide updates
 2. Jump started stewardship
 3. Two in-person joint nhd/wbd data and tool training
 - a. 25 people per session
 4. Continuing to do monthly TEMs
 - v. Additional projects
 1. Migrating stewardship website
 2. Compiling WBD metadata for states

- 3. Integration WBD name field with GNIS
 - c. NWIS in WBD:
 - i. Pilot data delivery (*Elizabeth*)
 - 1. Data test loaded to model
 - ii. Texas delineation work (*Kim*)
 - 1. UT WSC developed drainage areas for TX USACE
 - 2. About 770 gages completed and provided to Army Corps, WSC, and Steward
 - 3. Not yet updated in National dataset
 - d. Questions –
 - i. Is there a need for supporting agencies to assist tool maintenance and development? Historically NRCS provided bulk of WBD labor force. Might be able to submit for initiative funding as major partners.
 - 1. A: would love some additional support. Too many tools and not enough resources.
 - e. HU12 pour point development (*Sue*)
 - i. Pour points have been used to augment a process to select NHDPlus V2.1 flowline that represents the outfall of the HU12. Developed in Region 17, in testing in regions 6 and 1
 - f. FY17 plans and WBD future direction (*Sue*)
 - i. Strong focus on preprocessing WBD in advance of NHDPlus build
 - 1. Priority on HU4 boundaries
 - 2. Goal of 9 HU4 per month to production
 - ii. Standards update
 - 1. SLC workshop this winter, Dates TBD
 - iii. Catchment integration with NHDPlusHR and development of pour point dataset for HR hydrography
 - 1. High priority research item at NGTOC this FY
 - 2. Early stages of structuring and tasking an internal working group
 - 3. Provide recommendations for necessary refinements to WBD delineation rules, NHD reach rules, NHDPlus processing
 - 4. Steward and stakeholder engagement and communication will be forthcoming
3. **Hydrography program updates** (*Al Rea*)
 - a. NHD program management updates
 - i. Welcome to Rebecca Anderson
 - 1. Background in GIS and mapping, last 2 years coordinating Arctic work
 - b. NHDPlusHR status and FY17 plans (*Al*)
 - i. Process diagram for building NHDPlusHR
 - ii. Build progress is moving forward. Region 6 in review for refresh. Region 1 is next in queue for review for refresh.
 - iii. Next regions are 10,7,16...
 - iv. Working on rolling basis for this and next FY
 - v. Complete with exception of remainder of AK by FY18
 - vi. Questions –
 - 1. Discussion about mapping WBD beyond 6th level, NHD at higher resolution, what is the final level of detail?
 - a. A: Depends on what is in NHD HR which is a mixed bag with local resolution data in some areas and nominal 24K data in other areas. Running process with 10 m DEM and all flowlines. Will be catchments for all the flowlines. Factor of 10 increase in number of catchments from V2.1 and HR.
 - c. Hydro network connectivity kickoff meeting
 - i. How to handle issues like karst, playas and terminal lakes, prairie potholes, time-varying network connectivity
 - ii. Important to handle these well for NHDPlusHR

- iii. Lesson learned from NHDPlus V2.1 – single answer for connected or not when in many cases it is more complicated.
 - iv. 3 working groups
 - 1. Springs and sinks
 - 2. Types of connections
 - 3. Treatment of polygon network features (lakes/playas)
 - v. Questions:
 - 1. Any examples on prairie potholes?
 - a. A: There was discussion in meeting. Issue is they change through the year.
 - vi. Goal is that we store best information within datasets so people don't reinvent the data when they encounter special circumstances.
4. **US/Canada harmonization updates** (Pete Steeves, Kim Jones, Al Rea)
- a. Hydro harmonization model status (Al and Pete)
 - i. Canada very interested in NHDPlusHR
 - 1. Considered adopting data model
 - ii. Real challenges coming with lidar data and ele-hydro
 - 1. Linework, maintenance, conflation
 - iii. Need to look at data model to explore better, more modern solutions
 - iv. Canada and US collaboration to develop a common data model
 - v. Beginning stages of discussions
 - vi. Harmonized data are currently duplicated in each country's database. That model can't be maintained going forward. Doesn't address complete basins.
 - vii. Long term project – but high priority to manage large volumes of lidar data coming at us
 - viii. Intend to make contact with Mexico to see if they are interested in joining us
 - b. NHDPlus pilot area (Al)
 - i. *Rainy-Lake of the woods (090300) pilot by December 23*
 - ii. *Champlain-Richelieu (041504) pilot by Feb 14*
 - c. Hydrography data harmonization status and updates (*Pete Steeves, Kim Jones*)
 - i. Canada only has 8-digit units
 - ii. FY16 number of workshops via webex – existing relationship with stewards allowed collaboration remotely
 - iii. Timelines dependent on US and Canadian partners so priorities may shift mid-stream.
 - iv. FY17 plans and workshops ongoing
 - v. Drafting a master plan
 - 1. Goal is completion by end of FY18 pending agreements and funding