

WBD Steering Committee Agenda

May 20, 2016

10 a.m. PST, 11 a.m. MST, 12 p.m. CST, 1 p.m. EST

Invitees:

USGS- Al Rea, Kim Jones, Steve Aichele, Pete Steeves, Dave Blodgett, Elizabeth Stevens-Klein

NRCS- Laura Davenport

BLM- Jay Stevens

EPA- Wendy Blake-Coleman, Tommy Dewald

Excused:

USGS - Nate Booth (Chair), Vicki Lukas

NRCS - Steve Nechero (Co-Chair)

USFS- Mike Eberle

1. **Welcome** (*Sue Buto*)
 - a. Apologies from Nate, Steve, and Vicki – other duties pulled them both away
 - b. Governance
 - i. Last meeting we opened idea of merging NHD and WBD governance
 - ii. Bare bones draft charter for merger has been developed
 - iii. Passed to Nate, Al, Steve, Vicki for comment
 1. Will send reminder for comments
 - iv. Others will be able to comment and suggest after above review
2. **Hydrography program updates** (*Al Rea, Steve Aichele*)
 - a. FY17 planning: Goals and Major activities (Steve)
 - i. View of 3-5 year roadmap for elehydro
 - ii. Where both elevation and hydro are going – merger of ele and hydro under topographic data services
 - iii. Goals – hydrography and lidar coming from same source, integrated z values
 - iv. Synchronized data model
 - v. Common dataset in background, work toward less complexity exposed to users
 1. Database views that expose info to sets of users
 - vi. Near term NHDPLUS HR is the underlying dataset
 - vii. Key topographic datasets are NHD/WBD/3DEP
 - viii. Near term focus is
 1. NHDPLUS HR for CONUS through next year
 - a. target 6 regions this year, 12 fy17
 2. *event migration capability*
 3. *test cases – pilot areas for hydrography generation*
 - a. *ID roi for improved data*
 - b. *program direction*
 - ix. *Mid-term*
 1. *Complete NHDPlus HR refresh*
 2. *Begin NHDPlus HR in HI and AK*
 3. *Sample of topographic data model for users*
 - a. *Iterative process with user feedback*
 - i. *Meet user needs to extent possible*
 4. *20% of conus lidar derived hydrography*
 5. *10% of conus lidar derived nhd+*
 - x. *Comments –*
 1. *What is the plan for wbd?*
 - a. *Data generation as automated as possible, correlated with NHD+ catchments so HU12 is composed of a collection of catchments. 1:1 reporting of model results aggregated up to HU12 or smaller HU levels. Full integration with NHD and NHD+*
 2. *Hydrography information system*

- b. HRBS (Steve)
 - i. *Dewberry report in hand shortly*
 - ii. 500m current benefits
 - iii. *600m annual ongoing benefits*
 - iv. *No costs identified*
 - c. NHD and NHDPlus HR (Al)
 - i. Complete hydro information system
 - 1. Components of nhdplus hr
 - 2. Layers of data linked to nhd and nhd+
 - a. NWIS
 - b. QW portal
 - c. Catchment characteristics
 - d. Etc...
 - ii. Network linked data index
 - 1. Network based search engine for QW data
 - 2. Works for any data linked to nhd+ network
 - 3. Allows federated network based search through sciencebase
 - iii. Moving toward collaborative open development centered around nhdplus hr geospatial framework
 - iv. Shooting toward finishing 6 regions to beta and one refresh this fy
 - 1. Production started officially this week
 - 2. Not entirely finished with validation – Region 01 coastal still in the hopper
 - 3. Focusing on non-coastal areas
 - 4. Aggressive schedule
 - 5. Still working on distribution data model
3. **USGS update (Sue Proxy for Nate)**
- a. *NWIS modernization is in the final testing phase of implementing in the Amazon Cloud. OWI intends to start roll out to WSCs this summer.*
4. **NRCS (Laura Davenport, Steve Nechero)**
- a. NRCS WBD update
 - i. Latest snapshot is from February
 - ii. Waiting for latest tool certification
 - b. NRCS Update (Sue – proxy for Steve)
 - i. NRCS NGCE article (AWRA Impact) on WBD got published with the help of Jeff Simley. Thanks!
 - ii. Our Continuing Education (CESU) with University of Texas at Arlington to create waterbodies from LiDAR is wrapping up this summer. The lead professor Venkat and his PhD students presented at ILMF2016 in Denver, CO and ASPRS2016 in Fort Worth, TX
 - iii. NRCS NGCE received \$3.7 million FY2016-2017 funds to purchase new high resolution elevation program to contribute to the 3DEP program using GPSC III via USGS Rolla. Current challenges are processing the paperwork through our ADM Transformation effort using our new Grants and Agreements team. Goal is to have the new Interagency Agreement between NRCS NGCE and USGS Rolla in place in approximately 2 months. 3 million is for LiDAR and 700,000 is for AK IFSAR
 - iv. NGCE is using esri Enterprise Advantage (EAP) Credits to create vector cache tiles for WBD and NHD to use in our web apps like Product on Demand. Plan to share the results with the group for reuse or as best practice for Web maps and apps.
 - v. We still hope to receive tier 2 funding to do a new CESU with University of Texas at Austin for continuing on with the GeoHydro effort. No ETA given on the final decision or distribution of funds. This is on hold.

5. **WBD data improvements and updates** (*Kim Jones, Elizabeth Stevens-Klein, and Sue Buto*)
 - a. FY16 data improvements (*Kim*)
 - i. Names is in work but a little on back burner
 1. See status graphics
 2. 11,3,8,19 may wait till next fy to complete due to other priorities
 - ii. Coastal
 1. 3 nautical mile boundary should be completed this FY
 2. Need to think about implications of near shore option
 - iii. NHDPLUS HR preprocessing
 1. Focus on 1,6,2,12,14,15 this fy
 2. Invalid intersections at hu4 boundary
 3. Completed r2 and 12, in progress region 14, 15
 - a. NGTOC students will review and propose updates for review by Kim and Elizabeth – starting on r15
 4. Refresh work
 - a. Regions 1 and 6 need complete review
 5. SE Alaska
 - a. Updating where there are major discrepancies at outlets and along ridgelines
 - b. Not complete update to match ifsar
 - c. Coastal updates was low water mark now mean high water mark
 - d. Additional FS funding for this year
 - e. Perhaps more work in Chugach
 6. Yukon border
 - a. Complete digitization of linework and attribution for the 10 and 12 digit new conceptual HU within shared 10 digit units along the AK-Yukon and AK-BC border
 7. MatSu
 - a. Pilot for testing a semi-automated process for updating HU
 - b. Rules – guidance – tools to assist
 - c. Canada – BC has done work on totally automated process, documentation is sparse but personal communication might reveal details. Ontario also has a process without smoothing process. Hesitant to release documentation – use line pour point and point fc
 8. Comment on research from Jay –
 - a. share with outside folks so we can have other brains working on the problem
 - b. Complete agreement!
 - b. Data, Tools and Stewardship support update (*Elizabeth*)
 - i. Data management team is auto populating states, acres, sqkm fields so stewards no longer have to maintain
 - ii. Model changes 2.2 to 2.2.1 – planned for August release
 1. Huclass renamed to hudigit
 2. Hulevel gone
 3. Minor name changes for national map consistency
 4. Plan to compile future model changes over 6-month period, review biannually, possibly implement biannually or annually depending on importance
 - iii. Fy17 tool planning
 1. Data reviewer to increase wbd validation capabilities similar to nhd updates
 2. Workflow manager to indicate editing stage of a job
 3. Web-editing continuing R&D
 - a. NHDPlus HR markup has taken priority
 4. Tools for model 2.2.1 – arcgis 10.3.1 version
 5. WBD metadata

- a. sswg workgroup
 - i. 1 national fgdc metadata file, includes national level updates and points to state metadata files hosted on the national map
 - ii. States will update their files and provide us for hosting
 - iii. Feature-level metadata viewer add-in available for 10.3.1 to assist stewards
 - 6. National seamless
 - a. Last update 4/6.2016
 - 7. Working to integrate wbd name field with gnis (gaz tables)
 - 8. Stewardship support
 - a. Identifying mou status to begin conversations with liaisons
 - b. Jay volunteered to be BLM contact
- c. NWIS in WBD: Texas delineation work and Pilot data delivery (Sue, Kim, Elizabeth)
 - i. TX delineation work
 - 1. 748 gages in TX for USACE
 - 2. Gage process is complete
 - 3. Passing on to Curtis for watershed delineation then back to WSC for review
 - ii. Pilot data
 - 1. This has fallen through the cracks due to other duties/priorities
 - a. Would like to move forward before end of FY
 - 2. NonContributing area is a concern in WBD
 - a. AI confirmed there is funding for usgs people to hold a workshop concurrently with lidar workshop
 - b. Let AI know if anyone in this group is interested
 - 3. Still missing MS data
 - 4. Need to develop metadata for the pilot Das and get to NGTOC
 - a. Data release approval
 - 5. Work out final delivery kinks
 - 6. Phase 2 (next FY?)
 - a. Improve noncontributing areas
 - b. Improve toolsets and methods
 - c. Create services
 - d. Link to NWIS Web
- d. HU12 pour point development (Sue)
 - i. Formed workgroup to id needs and uses – primary at this time is pour point dataset based on NHDPlus MR V2 WBD snapshot
 - 1. OWI QW portal – navigation
 - 2. Water use and availability program
 - a. Flow in HU12, outlet index, “reference” gage
 - 3. Testing on dataset developed by Curtis is promising
 - a. Met this morning to discuss QA with Kim and Dave
 - b. Minimally viable product is OK here
 - c. Metadata, data release, publication
- e. Draft FY17 WBD proposed improvements (Sue)
 - i. Ongoing NHDPlus HR preprocessing
 - ii. NHDPlus HR refresh
 - 1. As needed
 - iii. Catchment integration to better harmonize WBD-NHD-NHD+
 - 1. High priority
 - 2. Understand/resolve coastal and inland lakes issues
 - iv. Data model review and revision
 - 1. part of larger hydrography information system concept
 - v. Canadian harmonization
 - 1. Complete or nearly so
 - vi. NWIS drainage area development

1. noncontributing area improvement(?)
 2. standardize methodology and tools, investigate services, integrate with NWIS web
- vii. Standards update

6. **US/Canada harmonization update** (Pete Steeves)

- a. Data harmonization –
 - i. continued hydro harmonization in some provinces where high res data not available in past
 - ii. upgrading to high resolution product in some areas
- b. pages on USGS confluence/wiki
 - i. Place to collaborate and share information
 1. Get modelers and thinkers involved and working together
 - ii. 2-pronged page
 1. Where we going with general hydro harmonization
 2. Data model harmonization
 - a. Piloting nhd+ product across border
 - b. Collaboration on a simplified cross-border data model
 - c. Showcase on future call (data model and confluence pages)
- c. Side-effect of working with Canada
 - i. Canada looks at USGS single entity approach to science and mapping as beneficial
 - ii. AI – on gaging side of things USGS and CA are also working on common model
 1. Aquarius
 2. Expand mou to geospatial frameworks (nhd-wbd-nhd+)
- d. WBD harmonization hoping for end of fy17
 - i. Coordination with every state and province
 - ii. Single editor workload is high if province doesn't pick up some of the work
 - iii. Great lakes workshop by March 2017
 1. Need to have our coastal ideas worked through by then

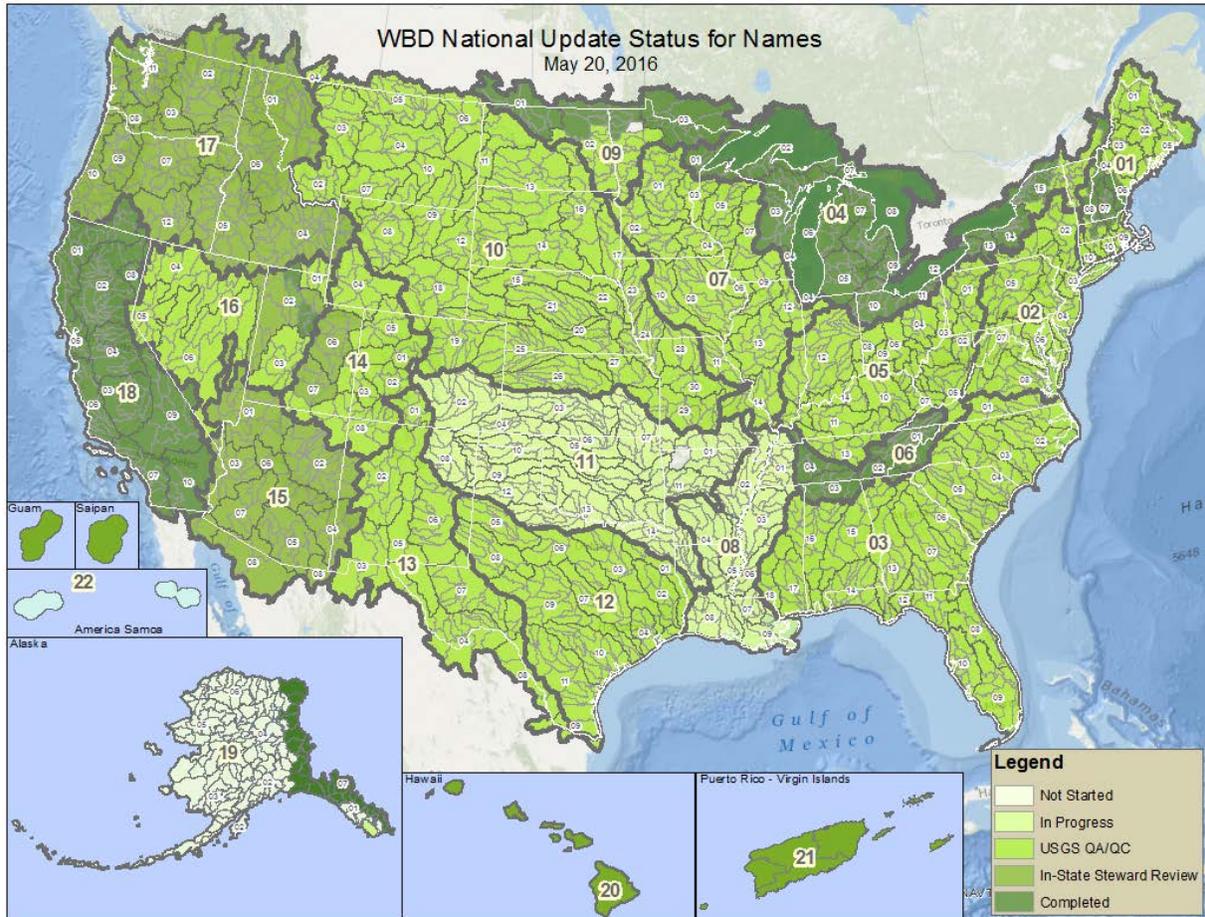
7. **Agency round table**

- a. **EPA: NHD Plus** (Tommy Dewald)
 - i. Question for perhaps next time:
 1. HU14 and 16 guidance and how that fits within catchment harmonization
 - ii. Flip the agenda over next time!
 1. Great idea
- b. **A-16** (Wendy Blake-Coleman)
 - i. Exciting work going on
 - ii. Public release of dashboard for A-16 datasets (link)
 - iii. Common framework for A-16 data
- c. **BLM** (Jay Stevens)
 - i. Keep him in loop for stewardship agreements

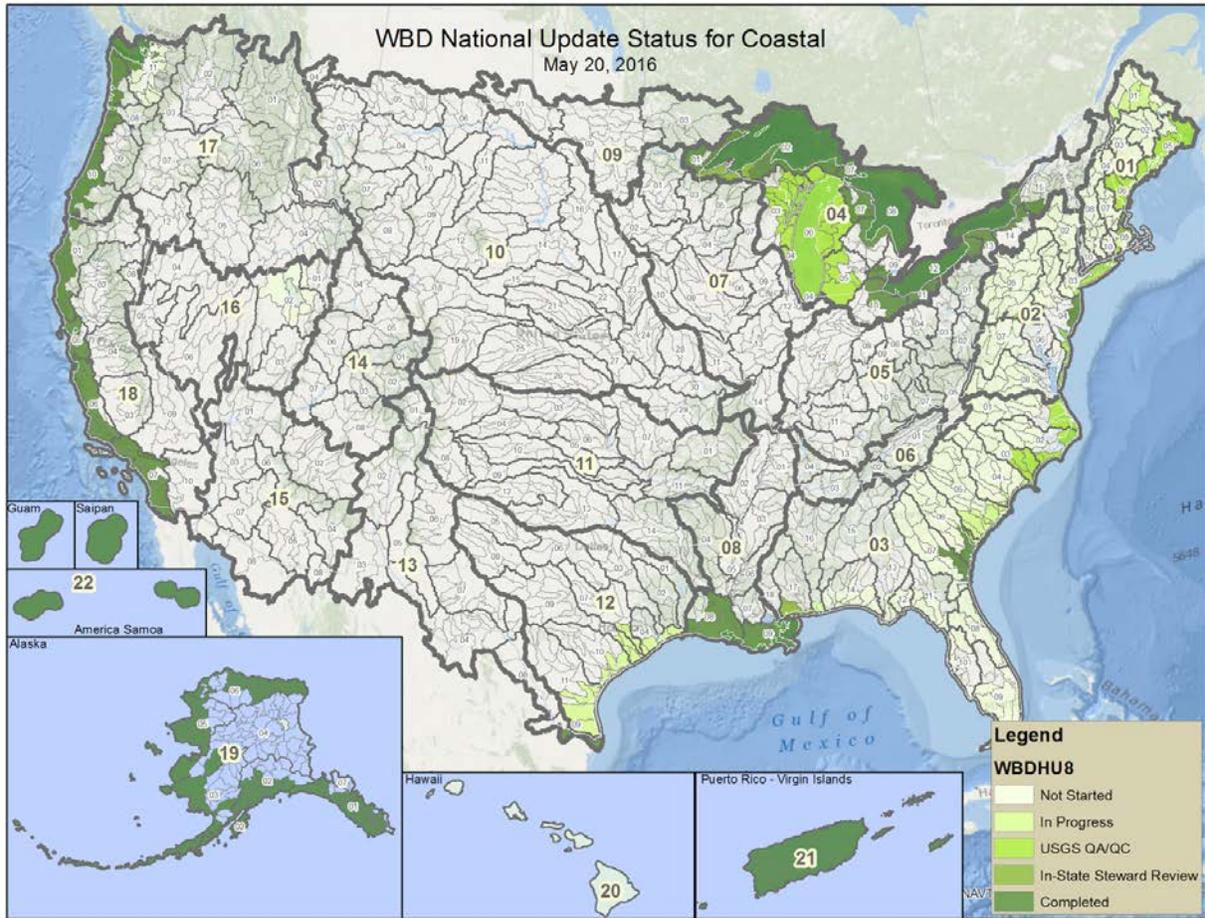
8. **Next quarterly meeting August 2016**

STATUS GRAPHICS for WSC work:

Names review:



Coastal updates:



Cross-border harmonization:

