**National Hydrography Dataset (NHD)**

**Stewardship Coordination Meeting**

**Meeting Notes**

August 11, 2009

10:00am-4:00pm

Forest Service, Elkins, WV

**Attending:**

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | Daugherty, Chris | WVDEP Water | [Chris.A.Daugherty@wv.gov](mailto:Chris.A.Daugherty@wv.gov) |
| 2 | Donaldson, Kurt | WVU WVGIS Technical Center | [Kurt.donaldson@mail.wvu.edu](mailto:Kurt.donaldson@mail.wvu.edu) |
| 3 | Dougherty, Michael | WVDNR | michaeldougherty@wvdnr.gov |
| 4 | Fedorko, Evan | WVU WVGIS Technical Center | [Evan.fedorko@mail.wvu.edu](mailto:Evan.fedorko@mail.wvu.edu) |
| 5 | Lammie, Sam | USDA Forest Service | slammie@fs.fed.us |
| 6 | McNeer, Janette | Canaan Valley Institute | [janette.bennett@canaanvi.org](mailto:janette.bennett@canaanvi.org) |
| 7 | Neidig, Craig | USGS, Charleston WV | [cneidig@usgs.gov](mailto:cneidig@usgs.gov) |
| 8 | Owen, Michael | USDA Forest Service | mdowen@fs.fed.us |
| 9 | Schauman, Bart | USDA Forest Service | wschauman@fs.fed.us |
|  | Simental, Tony (phone) | WV GIS Coordinator | [Tony.A.Simental@wv.gov](mailto:Tony.A.Simental@wv.gov) |
| 10 | Strager, Jackie | WVU NRAC | [jmstrager@mail.wvu.edu](mailto:jmstrager@mail.wvu.edu) |
| 11 | Tribble, Jack | USDA Forest Service | jtribble@fs.fed.us |

Notes:

**Speaker: Craig Neidig, USGS**

* Showed NHD video from Jeff Simley, USGS
* Full video available here:

<ftp://nhdftp.usgs.gov/Stewardship/Stewardship_09/Conference_Presentations/USGS_Video/>

* This year marks the 125th anniversary for the USGS topo map, new topo maps are coming out for some areas of the US (not WV), Geo PDF format
* Tony S. is working on a statewide GIS implementation plan (More on how this relates to NHD later on)
* Would like to schedule an upcoming meeting at USGS in Charleston to include K Paybins
* National Fish Habitat Action Plans (USGS/FWS) are local/regional partnerships that may have related work, interest or funding. A successful example of this is the Eastern Brook Trout Joint Venture (My note: See Pat Mazik at WVU who was involved with this)
* Question (Sam L ) what are the expectations for NHD sub-stewards?
* Question (Mike D) what are the plans for integration of NWI into NHD? Answer: Not much at this time, WBD (Watershed Boundary Dataset from NRCS) is a priority at this time.

**Speakers: Jackie Strager (NRAC), Evan Fedorko (WVGISTC)**

* Topic: Review of NHD in WV (local resolution data, why we are not pursuing it further at this time despite usefulness of finer scale data, case study on mining changes in Coal)
* Topic: Stewardship activities planned for NHD in WV (Evan)
* *Elizabeth McCartney* is the new NHD POC for WV stewardship (temporarily replacing George Heleine who will begin as USGS liaison for MS, AL soon)
* Training by USGS: They can provide 3-day training on NHD GeoEdit tools, along with 1-day NHD introductory tools & data usage, all scheduled in same week
* Good idea to include Springs of WV (book) content in NHD, Michael D (DNR) comments that DNR has an updated dataset for these as well
* Comment (KD) the edited high res NHD will essentially become a hybrid resolution product in some areas (where linework matching 1:4800 imagery/ SAMB hydro is incorporated)

**Speaker: Tony Simental, WV GIS Coordinator (via conference call)**

* Hold workshops for NHD substewards on how to use the NHD/ NHD tools
* Find more sources to fund stewardship on a long term basis
* Comment (MD) what about EPA funding sources?
* Comment (TS) money for stewardship may come through the GIS Strategic Planning process for WV
* Would eventually like to present NHD stewardship (data stewardship) to the WV legislature as part of a larger initiative including stewardship of many key data layers in WV (transportation, parcels, etc), similar to Mineral Lands Mapping Program, to obtain longer term funding. Would not want to separate out just NHD stewardship by itself (include with other datasets/resources). Would like to aim beyond grants in the long run.
* Aim to sign MOU at next meeting. Signing parties include NHD steward (GIS Coordinators Office) and NHD stewardship technical lead (WVGISTC) only. Do not have sub-stewards sign the MOU (probably would take too long, and would be difficult to get agency level approval).
* For sub-stewards (USFS, WVDEP, NRAC, etc): Define terminology in the MOU (substeward or other label). Have each entity draft a letter of support for NHD stewardship process. Include letters of support with MOU and also with potential NHD related project proposals to USGS. Include listing of sub-stewards in MOU as an appendix (similar to Virginia’s text in Appendix D), however, would like to have a little bit of text describing the anticipated roles and expectations of the sub-stewards.

**Comments following morning session:**

* Check out WV Flood Hazard Determination Tool, online at WVGISTC website
* (JT) Put partners in MOU as well (substewards) with a little more detail than what was provided in Virginia MOU
* (JT) Don’t leave ambiguity in what these agencies are committing to

**Speaker: Mike Owen (USFS)**

* Aquatic Ecological Unit Inventory and other activities on the Mon that use the NHD
* Have collected Rosgen-type channel info on n=95 reaches since 2002
* All data stored in shapefiles, coverages, or geodatabase, not yet referenced to the NHD, but will be referenced once data is prepared for transfer to the national Forest Service databases
* N=85 sites surveyed for aquatic organism passage (hanging culverts etc)
* Would be very useful to have this information in the NHD if possible (breaks in flow) since fish passage is a big issue for them. This would also be a major selling point for DNR (MD)
* Also use NHD in forest planning work, particularly to identify 100m buffer zones around streams. Other projects include timber sales, prescribed burn (project-level uses of NHD)
* Road/stream intersections: DNR has done some work identifying these using vector layers and photography, also bridge layer from SAMB. If no bridge present/visible, can assume a culvert carries stream under road in most cases.
* Janette mentions that WVDOT has a database of their DOT culverts (are we able to get this?) that may be useful
* Other potential improvement to the NHD: It would be very useful to them to have useful perennial, intermittent, and ephemeral stream attributes in the NHD (the attributes currently in NHD are not accurate). This would add greatly to their forest planning, since a lot of activities are governed by the type of stream.
* 6th level HUCs (12 digit watersheds) are the fundamental land management unit that they use

**Speaker: Sam Lammie, USFS**

* GIS aquatic datasets for the Mon
* Listing of datasets they have & use, most datasets in file geodatabase
* 100 ft riparian buffers are used frequently in management planning
* They have a point layer of ponds
* ArcGIS diagrammer – check this out (links between datasets), search for this in ArcScripts (?)
* Comment (JT) NHD and linear referencing seems useful because it allows data to be captured for one project, then stored & used in future work as well
* Comment (SL) would rather work with 1:4800 linework/ hydro because it matches up much better with the 3m DEMs and photos.
* NHD fcodes are not generally useful (perennial/intermittent/etc)
* NHD edits from the Forest Service would likely be identified for very small project areas individually (e.g. prescribed burns)

**Comments: Michael Dougherty, WVDNR**

* Would be useful for managers to have a way to submit NHD edit needs, especially since they have on the ground knowledge of specific areas
* They are not going to be able to edit linework, would be simplest to have a web-based interface where they can sketch out problem areas, have the sketches transferred back to the actual NHD technical editors
* Showed demo of web application for mapping bat survey routes, works best in Mozilla Firefox (not very reliable in IE7, IE8 is awful). This was a simple case, put together very quickly for a specific purpose. Would recommend something similar (web-based) for gathering/soliciting NHD comments, because it provides spatial context (rather than just stream names/codes).
* Current website example (use Firefox!!): <http://martes.dnr.state.wv.us/batroutes/>
* Idea: have site limited to authenticated users, store user info with edits
* NHD would be used in some other DNR functions as well, such as secondary review (after DEP) of stream crossing permits etc.
* SAMB hydro is more extensively used, SAMB ponds are pretty good (better than rest of data). They tend to use 24K NHD for names only (not linework)

**Comments: Janette McNeer, CVI**

* CVI works with many local watershed groups (a map and a listing is available from CVI website)
* CVI could suggest to these groups that if they wish to capture edits/improvements needed for the 24K NHD, they could participate in stewardship process by submitting comments through procedures identified (i.e. web tool, etc)
* Specific local knowledge of these groups/individuals would be very helpful, Janette is willing to encourage them to participate in this way
* Many of the groups also have VISTA volunteers, who may also have GIS experience

**Comments: Jack Tribble, USFS**

* Would like to see a technical hydro workgroup set up at the state level (rather than an executive level group)
* Less duplication of effort in collecting/maintaining hydro data, hopefully NHD stewardship can encourage this in the long run
* See Virginia MOU as an example – add our “substewards” to our MOU in a similar fashion (as an appendix, not as signatories) but include more specific information on the expected roles of substewards – don’t leave this too generic or wide open. Use language such as “shall” and “could”

**Next Meeting:**

* Mid to late September
* Hold in Charleston WV at offices of USGS Water Res.
* Have MOU prepared for signing
* Have NHD stewardship proposal largely written and ready for submittal

**Next Steps/To-Do**

* Check NHD data model for culvert features (are these points? Do they divide reaches? Do they divide arcs?) Or include as event features instead? (JS/EF)
* Research NHD edit reporting methods/approaches from other states. Examples include simple web reporting forms (Nebraska), other web-based tools (Vermont), templates (BLM), and others. Determine which method(s) would be most appropriate for WV. (JS, EF)
* Get in touch with BLM contact for NHD edit templates mentioned in ESRI talk (JS)
* Prepare MOU for potential signing at September meeting (CN, KD)
* Prepare proposal (EF, KD, JS, CN)
* Begin to draft/solicit letters of support for NHD stewardship activities within your agency (all)
* Determine if any other agencies should be contacted/informed of the process and of the next meeting (Bureau for Public Health, Army Corps of Engineers, WV DOT, etc.) (CN, all)