**Oregon Hydrography Framework Implementation Team Meeting**

Thursday, January 26, 2017
Rogue conf. rm., Oregon Water Resources Dept., 725 Summer St. NE, Salem

**Attendees (*via web/phone):**

Bob Harmon, OWRD
Steve Timbrook, ODF
Theresa Burcsu, OSCIO GEO
Lowell Anthony, DOGAMI
Tanya Haddad, OCMP
Dick Lycan, PSU
Anita Stohr, WA Dept. of Ecology
*Jay Stevens, BLM
*David Pray, DEQ
*Malavika Bishop, DEQ
*Steve Aalbers, DEQ
*Jon Bowers, ODFW
*David Richey, LCOG

**Notes:**

1) **Intros, agenda changes?**

2) **Announcements**
   a. Kristiana Elite is the new USGS technical Point of Contact (POC) for Oregon (& Washington).
   b. The NHD Edit and HEM (Hydro Event Management) tools have been updated to support the USGS' move to secure HTTP (HTTPS).
   c. Current Oregon state agency NHD editors:

| Editor | Agency | Location |
|---|---|---|
| *Bob Harmon* | OWRD | Salem |
| Meredith Carine | OWRD | Salem |
| Jon Bowers | ODFW | Salem |
| Ruth Schellbach | ODFW | Salem |
| Erin Gilbert | ODFW | Corvallis |
| Lowell Anthony | DOGAMI | Portland |
| Lisa Zwart | ODF | Salem |

3) **2017-2019 Oregon FIT funding program**
   Bob began by giving a brief background on Oregon Framework and biennial grant program. Theresa explained the purpose of categorizing elements by the tiers developed by her and the FIT leads.
   **a. Framework tiers.**
   Bob proposed, and the group accepted, the following tier assignments for the Hydro FIT's elements:

| Element | Starting tier assignment | Suggested tier assignment | Group consensus tier assignment |
|---|---|---|---|
| Watershed boundary dataset (WBD) (HUCs; 1st – 6th fields) | 3 / 4 | 2 | **2** |
| NHD Flowlines *(watercourses)* | 3 / 4 | 2 | **2** |
| NHD Waterbodies/areas | 3 / 4 | 2 | **2** |
| NHD Points | 4 | 3 | **3** |
| Stream gages | 4 | 3 | **3** |
| Water wells | 4 | 3 | **3** |

**b. Hydro FIT funding ideas for 2017-2019 cycle?**

**i. Lake bathymetry.** Dick Lycan presented his proposal for on-line sharing of lake bathymetric data. This element is a part of the Elevation FIT, but has obvious ties to the Hydro FIT. Dick had shared this proposal with the Elevation FIT at their last meeting and was seeking feedback from our group. He is proposing to:

1. Develop metadata standards for Oregon lake bathymetry. Teresa recommended that it should follow the Oregon metadata standard.
2. Release the PSU copyright on lakes atlas maps.
3. Where possible establish vertical datum for lake surface.
4. Provide downloadable grid data of lake depths.
5. Provide downloadable contour maps of depths .
6. Provide lake bathymetry for Oregon lakes as a web service.
7. Provide edited survey data.
8. Establish procedures for adding new bathymetric data. Teresa also suggested addressing stewardship of the data.
9. Add new or improved maps to the collection, e.g., Lakes of Oregon, UACE river depths.

Regarding the web site that would house the bathymetric data Tanya also recommended that it should have pointers to the near shore and estuarine bathymetric data that is scattered among numerous sites.

**ii. Aligning NHD flowlines with elevation derived from lidar.** Lowell brought up the need to update the alignment of the NHD flowlines and WBD boundaries to lidar-derived elevation. Bob suggested piggybacking the prioritization process and list developed by the Elevation FIT for the USGS 3DEP funding program. He also said that he would set up a meeting in Portland to discuss it (see "6. Outcomes" below).

4) **Status of each of our NHD related projects. Let us know, in 5-10 minutes each, what you've been working on related to the NHD/WBD.**
    a. **OWRD (Bob)**
        i. Added or corrected about a dozen names in the GNIS as a result of the USGS' efforts to standardize the names on the WBD (HU10s & 12s) and make them conform to the GNIS.
        ii. Now providing surface and storage points of diversion (PODs) on active water rights as point events on the NHD. The data are refreshed every night and made available for download (along with FGDBs and shape files) at http://www.oregon.gov/owrd/Pages/maps/index.aspx#Water_Right_Data/GIS_Themes .
        iii. Through the course of making edits to NHD OWRD has worked through 51% of Dick Lycan's list of waterbodies missing in the NHD. They will now work through the remainder of the list.
    b. **ODF (Steve)**

        Will add two more NHD editors and they will be attending February training. They will concentrate on updating alignment of flowlines to the lidar-derived elevation in areas where fish surveys have been done, in private forests, and in riparian buffer rule areas.
    c. **DOGAMI (Lowell)**

        Finished the update of the shoreline in the NHD (integrating the "modified CUSP"). Corresponding work on the WBD is done, too. Lowell has been working with Tanya.
    d. **Washington (Anita)**
        i. Coastline update work up on the Nisqually.
        ii. Working on storm water in King County. They are interested in adopting the NHD. They recently acquired lidar.
        iii. Put latest 303D data on the NHD.
        iv. GNIS names update. They have an AGOL web map/feature service for users to submit proposed updates to the NHD.
        v. Dan Saul, WA Dept. of Ecology GIS supervisor retiring. Best wishes Dan!
    e. **ODFW (Jon)**
        i. NHD editing driven by needs of fish habitat mapping—~15 edits over the last year.
        ii. ODFW research group (Corvallis; Erin Gilbert) has need to model landscape characteristics on stream networks. Using 30-meter DEM to create a new stream network for modeling with the STARS statistical modeling tools.
        iii. Still have whole stream LLID route as a HEM feature class. It is very useful for data quality assurance work.
    f. **DEQ (David, Malavika, & Steve)**
        i. Mapping monitoring station point locations—snapped to the NHD high-res network. It's almost done.
        ii. Migrating their fish use data to the NHD using ODFW's whole stream route layer. The Mid-coast basin has been completed and portions of others.
        iii. DEQ's modelers have been interested in using the lidar-derived elevation to get the NHD updated. There have been discussions with ODFW's research group. [FYI, there was a meeting last August between DEQ, ODFW, ODF, OWRD, and the BLM about trying to use the NHD to meet the modelers' needs.]

**g. LCOG (David)**

LCOG is primarily a user of the NHD. He is doing contract work for the Eugene Water & Electric Board (EWEB) looking at three time slices using 4-band NAIP and lidar for two of those time points.

Interested in stewardship of the NHD in urban areas. Bob noted there had been some discussions in the past with Portland and Springfield, and would like to see those continue.

**h. BLM (Jay)**

i. Focusing on improving attribution on their fish data. Jay has been working with Jon (ODFW) to develop a comprehensive layer of the cutthroat trout data for western Oregon for Western Oregon Plan implementation.
ii. Has backlog of lidar-based delineation of the NHD. Next up is the Applegate.

**5) NHD Management team 12/16 meeting summary (Jay). Includes USGS National Hydrography Requirements and Benefits Study report.**

a. Combining the management structures of the NHD and WBD—for better coordination. No definite structure as of yet.
b. Review of the HRBS (Hydrography Requirements & Benefits Study). An executive summary is available on the National Map web site (https://nationalmap.gov/docs/HRBS_ExecSummary.pdf ). The main takeaway is that everybody wants hydrography [NHD] integrated with elevation data. There was discussion around the USGS' "Ele-hydro" project and how to get things moving. Pilot projects will take place in 5 landscapes (humid, arid, flat, coastal, & mountain). New hydro will delineated and NHD attributes conflated, and cost-benefit analysis undertaken for each landscape type. Each test area is about watershed size (HU10).
c. Anita asked about discussion around any recommended model changes. Jay said that the management group avoided most of that.
d. On the NHDPlus-Hires development they have added a field to the flowlines that has what resolution the reach should be displayed at [yeah!].

**6) Outcomes**

a. Bob will write up the notes and get them out to folks to review.
b. He will also set up a meeting in the next month in Portland to discuss priority areas for NHD updates to conform to lidar derived elevation data. This will hopefully lead to a funding proposal.