Updates, Danielle Favreau:

**USGS** is updating the VisFilter attribute with 8 different scales; 1:24,000 to 1:5,000,000. This will limit what is visible at smaller scales, making it easier to read at different scales. Danielle will send out an email with Idaho Hydro News when available.

**WBD Model Changes.** Increasing the LineSource attribute field length. Decreasing HUType attribute field length. Adding ReferenceGNIS_IDs attribute so that every HUC has a tieback to the GNIS name ID. Danielle will let people know when it is complete.

**NHD Plus.** The most wanted areas in need of updates has been posted. NHD Plus is now in Beta and work has started on the official version.

**Markup Reviewer.** There are constant improvements being made. Use this tool for submitting small edits and is available for everyone to use. Contact Danielle or Linda if you have questions.

**NHD Tools.** Still on ArcMap 10.5.1 and there has been no decision yet about what to do next. There is no backwards compatibility. Tools will be coming on the web.

**Deriving Stream Networks from LiDAR for State Endowment Lands** – Geoffrey Klein, RS Analyst, IDL, gklein@idl.idaho.gov

Please see slide deck-streamsfromLiDAR_idl.pdf.

**Introduction**

- Couer de Alene region buys a lot of LiDAR in order to improve the stream layer
- A lot of data is still being QA/QC
- Some data is proprietary and cannot be shared
- Things that need improvement
  - Level of accuracy of stream and road layers

**Channels are way more accurate**
• Looking for defined stream channel bed
  o Changes in timber practices are based on stream location
• Defining streams into 2 categories
  o Type 1 – has fish
  o Type 2 – no fish
  o A lot of work is going into finding out which is which
• Limitations
  o Accuracy issues with adjacent “forest butte” (See slide 7)
  o Looking at effects on the stream by management practices

**Deriving the streams**

• Problems
  o Data so accurate that is shows the stream lines following the roads when culverts are in use
    ▪ Bridge and culvert data is not as accurate as LiDAR data
    ▪ Still had to find points where streams cross roads
    ▪ Helps in creating new culver/bridge layers, but takes a lot of manual hours
  o Using ArcPro to easily share data across the state for hydrologist and other staff input (see slide 10)
    ▪ Geoprocessing tools work fast and clean
      ▪ The stream delineation tool has been working very well
      ▪ Task Designer can be shared with others and is very useful to pass work on
  o Process
    ▪ See slide 11 for Process chart
    ▪ DEM Burn areas
      ▪ Change elevation raster data to lower value, then Fill
        ▪ You end up with a hole in roads that helps you with stream creation
    ▪ Flow Accumulation
      ▪ Set threshold for finding streams in order to not create too many new streams
      ▪ A lot of field validation was done to make sure a stream is actually there
      ▪ Geology and soil type can really affect the accuracy of stream existence
      ▪ Next step
        ▪ Get to stream predictive modeling
          ▪ Give a spot a predictive rating on actual stream existence
          ▪ Hard to scope out

**Stream Monitoring Project (Slides 14-18)**

• Introduction
- For more information, contact Geoff and he will put you into contact with the Project Lead
- Haven’t had any historic change tracking
- Started taking samples for environmental changes
  - Looking at fish populations
  - Using drones to model stream channels for monitoring purposes
    - How is the channel changing and how is run off changing
  - Will continue yearly monitoring and possible reconstruction practices

- **PhoDAR**
  - Take a bunch of geologged pictures, run algorithms to turn it into a 3D model
  - By using NDVI from drone data, chlorophyll levels can be calculated
  - Right now, data is being collected and 3D models are being created
  - PhoDAR doesn’t penetrate tree canopy and can’t see what the stream is doing under the vegetation
  - Different modeling products include; Pix4D, AGI Soft

**LiDAR based NHD and WBD Delineation in Western Oregon** – Jay Stevens, BLM, gstevens@blm.gov

- See presentation slides and recording below
  - 04/26 NHD Adv. Team meeting presentation ([PPT and recording](#)).
  - Presentations were very similar, although not exact.

**Other Business**

No other business presented.

**Next TWG is September 12, 2019!**