**WV Flood Tool Upgrade Tasks**
01/05/2018

New statewide data sources for WV Flood Tool

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| **DATA LAYER DEVELOPMENT** | **PR** | **CATEGORY** | **FILE NAME** | **TASK** | **RESPONSIBILITIES** |
| HEC-RAS Depth Grid  | 1 | Depth Grid | **Depth\_A\_AE\_1PCT\_5ft\_date** | Depth grid combines effective and advisory depth grids (A & AE Zones). Composite grid at 5-ft cell resolution. Rounded integer grids. Re-classify depth grid to integer intervals. Ensure to include Jefferson County. | Eric – Added Mineral AFH. Need to add Jefferson/Clear Fork AE. |
| Flood Height / Water Surface  | 1 | WSEL Grids | **WSEL\_AFH\_5ft\_date****WSEL\_BFE\_1M\_date** | Two WSEL grids to distinguish between Effective and Advisory. 5-foot cell resolutions. WSEL\_BFE\_1M source data from Upper Mon Watershed Restudy; to 1 decimal point. WSEL grids are invisible and for querying purposes only. Also post vertical datum source. | Eric - completed |
| Effective Special Flood Hazard Area (SFHA) flood zones (effective floodplain, X-sections, BFE’s) | 1 | NFHL | **NFHL\_SFHA\_dateNFHL\_XS\_dateNFHL\_BFE\_date** | Consume data from FEMA’s National Flood Hazard Layers (NFHL) and cached together. Also look at pros and cons consuming more services directly. Add labels for SFHA zones. Consider displaying 500 year floodplain  | Eric and Maneesh |
| DFIRM Panel Index | 1 | NFHL | **NFHL\_FIRM\_PAN\_date** | Create new panel index file that is current to NFHL. Important fields for queries and report results: panel index number and effective date. What color?  | Eric, Maneesh, Xiannian |
| Community/CRS Layer | 1 | NFHL | S\_Pol\_Ar & L\_Comm\_Info**S\_Pol\_AR\_CRS\_date** | Add CRS star for Putnam County. Create new file for community query (county or community). Create a LUT for CRS data to link to S\_Pol\_Ar communities. Review NFHL S\_Pol\_Ar for labeling and symbology (community/county boundaries). County boundary scales issues between different data sets? Symbol color? Update CRS graphic. | Maneesh Eric |
| Elevation (SAMB/Lidar hybrid) and Elevation Data Source layer | 2 | Reference | SAMB\_augmented\_ 3m | 3-meter SAM elevation grid augmented with newer Lidar Data (check z values of grid). Need to also create a best elevation data that lists source and accuracy. Also post Datum source.  | Eric and Maneesh |
| Advisory Floodplain Boundary and Updated Detailed Floodplain Boundary | 2 | Floodplain Boundary | FPB\_Advisory\_A +FPB\_Updated\_AEFPB\_AdvisoryA-UpdatedAE | Combine Advisory A and updated AE floodplain boundary into composite floodplain boundary vector layer that can be added as a reference flood layer. | Eric |
| Unified Floodplain Boundary (geometry extent for query layers) | 2 | Floodplain Boundary | Unified -FPB (NFHL\_SFHA and Advisory-FPB)  | Unified floodplain boundary (effective + advisory) on geographic extent. Needed for StreamName and Model query layers. Use for geometry and analytics only. No attributes required. Just empty – not attributes | Eric |
| 75’ Buffer of unified floodplain boundary | 2 | Floodplain Boundary | Unified-FPB-Buffer-75ft | Buffer created from 75’ foot buffer of unified floodplain boundary (union of Effective and Advisory Zones) | Eric and Maneesh |
| Stream Name (unified FPB) Models (unified FPB)Flood Profile (effective FPB) | 2 | Query Layers  | StreamNameModelsFloodProfile | Separate out flood query layers into 3 separate layers: Stream name, flood profile, HEC-RAS models. The stream name layer and HEC-RAS models use a unified floodplain boundary geographic extent of both Effective and Advisory/Updated Zones. No flood zone designations (A, AE) are needed for any of these layers. The Models Layer may become obsolete with direct link to models on Clearinghouse.  | Eric – Streams incomplete; needs review. Other query layers ready for Flood Tool Test app. Assign to Pragya |
| Parcels | 2 | Reference | WV\_Parcels | Add remaining parcel counties. Currently 36 counties. | Kevin, Kurt and Xiannian |
| NFIP | 2 | Flood Insurance | **S\_Pol\_AR\_NFIP\_date** | Create GIS file with NFIP data. | Maneesh |
| USGS High-Water Mark Inundation Depth Grid | 3 | Depth Grid | Depth\_HWM\_heightsaboveGround | Statewide high-water depth grid at 5-ft. resolution | Maneesh |
| Elevation Certificates | 3 | Elevation Certificates | Elev\_Cert | Create Elevation Certificates GIS file with key attributes |  |
| **CARTOGRAPHY/ RESULTS QUERY PANEL** |  |  |  | **TASK** | **RESPONSIBILITIES** |
| Floodway | 1 |  |  | Kevin Sneed wants the floodway to be more apparent with a different symbol | Eric |
| Flood Zones | 1 |  |  | Add labels like NFHL for Expert View. Need to add 500-year floodplain. Opportunity for preferred risk policy. On map only for Expert and RiskMAP Views; only query info for Public View.Follow new flood zone colors from NFHL for Public and Expert Views. Instead for NFHL blue color, use WV Flood Tool red color. | Eric |
| Depth Grid (Model-Back) | 1 |  |  | Reclassify depth grid to integer intervals | Eric |
| Political Boundaries | 1 |  |  | Difficult to see political boundaries on all base map layers. Add CID labels | Eric |
| Results Panel Interface | 1 |  |  | New Query Panel interfaces for Each View | All |
| **PROGRAMMING** |  |  |  | **TASK** | **RESPONSIBILITIES** |
| Add all new web services and cartography changes | 1 |  |  |  | Xiannian |
| Flood Query Programming Logic | 1 |  |  | Update WV Flood Tool – query panel | Xiannian and others |
| Bing link | 1 |  |  | Add link to Bing oblique views | Xiannian |
| Elevation | 1 |  |  | Add ground elevation source information and accuracy. Look at new standard. |  |
| FloodSmart Video Tab | 1 |  |  | Remove FloodSmart Video Tab | Xiannian |
| One Repository Storage for AFH Models and Elevation Certificates | 1 |  |  | << Flood Tool Download Location >>https://services.wvgis.wvu.edu/flooddownload/WV\_HEC\_RAS\_Model/Taylor\_WV\_HEC\_RAS/tygrtvyrvr.zip<< Flood Tool Metadata Download Location >>ftp://ftp.wvgis.wvu.edu/pub/Clearinghouse/inlandWaters/floodHazardsData\_FEMA/WV\_HEC\_RAS\_Modelhttp://wvgis.wvu.edu/data/dataset.php?ID=414<< One Flood Tool Repository for All Models >>https://data.wvgis.wvu.edu/pub/Clearinghouse/inlandWaters/floodHazardsData\_FEMA/WV\_HEC\_RAS\_Model | Xiannian; Eric make sure all models are uploaded. Kurt create ReadMe file for FTP download of multiple files |
| Data Index File and Global Variables / TOC published services |  |  |  | Make sure most current data files are being published | Xiannian |
| Update Expert View Legend Graphic | 1 |  |  | Update Expert View Legend – remove numbers from legend | Xiannian |
| Disclaimers | 1 |  |  | Flood Query Panel, new Parcel Disclaimers | Kurt, Xiannian |
| **DOCUMENTATION** |  |  |  | **TASK** | **RESPONSIBILITIES** |
| Updated Query Panel Format | 1 |  |  | Format info needed for programmer | Kurt |
| Example Links for all Flood Zone Status Conditions | 1 |  |  |  | Kurt |
| Query Programming Logic | 1 |  |  |  | Kurt |