

# BLE Data Download

## Reference Guide



The Base Level Engineering database is broken into a number of pieces for download through the Estimated Base Flood Elevation (EstBFE) Viewer available at:

<https://webapps.usgs.gov/infrm/estBFE/>

But what is included in each download and what software do I need to review and interact with the information I download? If you have these questions, this flash card can help you.

| Name of Data Set              | File Name          | Description                                                                                                                                                                                                           |
|-------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| HECRAS models                 | HUC8#_Models.zip   | HEC-RAS hydraulic models for all streams studied in Base Level Engineering assessment. Use <b>HOW2 Find the Right HEC-RAS Model</b> for tips to find the model you need. Detailed models from FIRMs are not included. |
| 1% event depths, raster       | HUC8#_Depth01.zip  | <b>Flood depth elevations</b> in a gridded format for the <b>1% storm event</b> .                                                                                                                                     |
| 0.2% event depths, raster     | HUC8#_Depth002.zip | <b>Flood depth elevations</b> in a gridded format for the <b>0.2% storm event</b> .                                                                                                                                   |
| 1% event elevations, raster   | HUC8#_Elev01.zip   | <b>Top of water surface elevations</b> in a gridded format for the <b>1% storm event</b> .                                                                                                                            |
| 0.2% event elevations, raster | HUC8#_Elev002.zip  | <b>Top of water surface elevations</b> in a gridded format for the <b>0.2% storm event</b> .                                                                                                                          |

| Name of Data Set                      | File Name           | Description                                                                                                                                                                                    |
|---------------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Vector spatial data, file geodatabase | HUC8_VectorData.zip | This database is a <b>collection of spatial data</b> used and created during Base Level Engineering assessment. <b>Use HOW2 Find the Spatial Files</b> for more details.                       |
| Reports and Documents                 | HUC8#_Documents.zip | This download element included the <b>BLE Report</b> to detail terrain, hydrology and other modeling details. This file may also include work maps and/or kmz (Google Earth) files if created. |

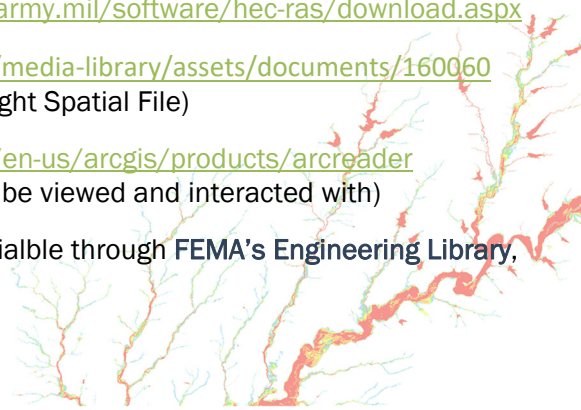
The following tools can be used to assist you in reviewing and interacting with the data that is downloaded from the Estimated BFE Viewer.

**Download HEC-RAS software at:** <https://www.hec.usace.army.mil/software/hec-ras/download.aspx>

**HOW2 tip sheets are available at:** <https://www.fema.gov/media-library/assets/documents/160060>  
(HOW2 Find the Right HEC-RAS Model, HOW2 Find the Right Spatial File)

**ArcReader can be downloaded at:** <https://www.esri.com/en-us/arcgis/products/arcreader>  
(ArcReader is free software that will allow the GIS files to be viewed and interacted with)

Detailed HEC-RAS and other data shown on FIRMs is available through **FEMA's Engineering Library**, at <https://www.fema.gov/engineering-library>



# BLE Vector Geodatabase

Flash Card



The Base Level Engineering database is broken into a number of pieces for download through the Estimated Base Flood Elevation (EstBFE) Viewer at: <https://webapps.usgs.gov/infrm/estBFE/>. One of the download files is the **Vector spatial data, file geodatabase**.

This flash assists to identify the different data elements available within this geospatial database. The vector geodatabase is organized into categories – **(1) Base (2) CNMS (3) EBF E and (4) Mitigation**

| Category | Feature Name                      | Description                                                                                                                                                                                                                                                                                 |
|----------|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Base     | S_POL_AR or<br>S_FRD_POL_AR       | Political Boundaries for Counties/Parishes, Towns/Cities, etc. within the study area.                                                                                                                                                                                                       |
| Base     | S_HUC_AR                          | Watershed (or other) boundary to define the extent of the study area.                                                                                                                                                                                                                       |
| CNMS     | S_Studies_LN<br>S_Unmapped_LN     | <b>Studies</b> provides stream centerlines for study streams, also includes information about current FIRM flood zone. <b>Unmapped</b> includes streamlines beyond the Base Level Engineering study limits.                                                                                 |
| EBFE     | DET_STUD_LN<br>and<br>DET_STUD_AR | Features provide an understanding of detailed (Zone AE/VE) study areas shown on the current effective FIRM. In these areas users should consult and review Base Level Engineering (BLE) results against the Base Flood Elevations (BFEs) shown on FIRMs prior to use of the BLE data alone. |
| EBFE     | Subbasins                         | Drainage areas used for hydrologic analysis in BLE assessment.                                                                                                                                                                                                                              |
| EBFE     | S_WTR_LN<br>S_WTR_AR              | The line file (LN) includes stream centerlines and the polygon (AR) file includes ponds and lakes that are within the study area.                                                                                                                                                           |

| Category   | Feature Name                       | Description                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EBFE       | S_FLD_HAZ_AR                       | Polygon file with floodplain extents determined in the BLE study. The file includes estimated floodplain extents for 1% and 0.2% annual chance floodplains. In GIS these can be categorized using the EST_AR_ID field/column (1% is denoted with “HIGH” and 0.2% is denoted with “MODERATE” in the field). All other areas (not included) should be understood to be “LOW” flood risk during the 1% and 0.2% events. |
| EBFE       | TENPCT_FP                          | Estimated flood extents expected during the 10% annual chance storm event. A 10% event should occur more frequently than the 1% and is associated with a smaller rainfall event.                                                                                                                                                                                                                                     |
| EBFE       | XS_1D                              | Location and orientation of all analysis cross-sections (XS) that were used in the BLE assessment, available for all 1D analysis areas prepared. If file is not available, analysis was performed with 2D.                                                                                                                                                                                                           |
| EBFE       | BFE_2D                             | BFE lines prepared from the Water Surface Elevation grid, intended to assist users to determine flow direction and provide information for estBFE Viewer.                                                                                                                                                                                                                                                            |
| Mitigation | S_AOMI_PT<br>S_AOMI_AR             | Files indicate areas where additional information could refine the BLE results – identifies where structure/survey would be beneficial                                                                                                                                                                                                                                                                               |
| Mitigation | S_FRAC_AR <b>or</b><br>S_CenBlk_AR | This polygon feature class is the spatial foundation for all census block-based flood risk assessment data. Damage estimates for flood risk assessments performed at the Census Block are stored in this dataset.                                                                                                                                                                                                    |

A number of tools have been created to assist you reviewing/using data downloaded from the estBFE Viewer:

<https://www.fema.gov/media-library/assets/documents/160060>

ArcReader is free for downloaded at: <https://www.esri.com/en-us/arcgis/products/arcreader>

(This free software allows the GIS files to be viewed and interacted with)