

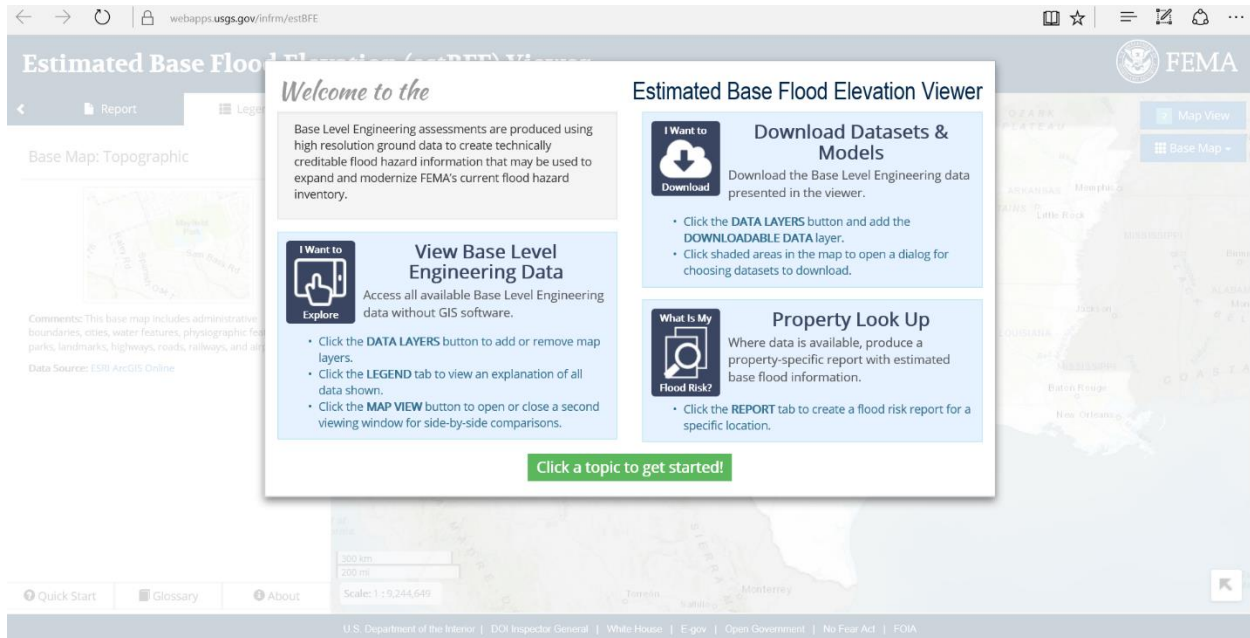
# How to search, view, print and download the models for the Zone A Base Level Engineering (BLE) floodplain

Step 1:

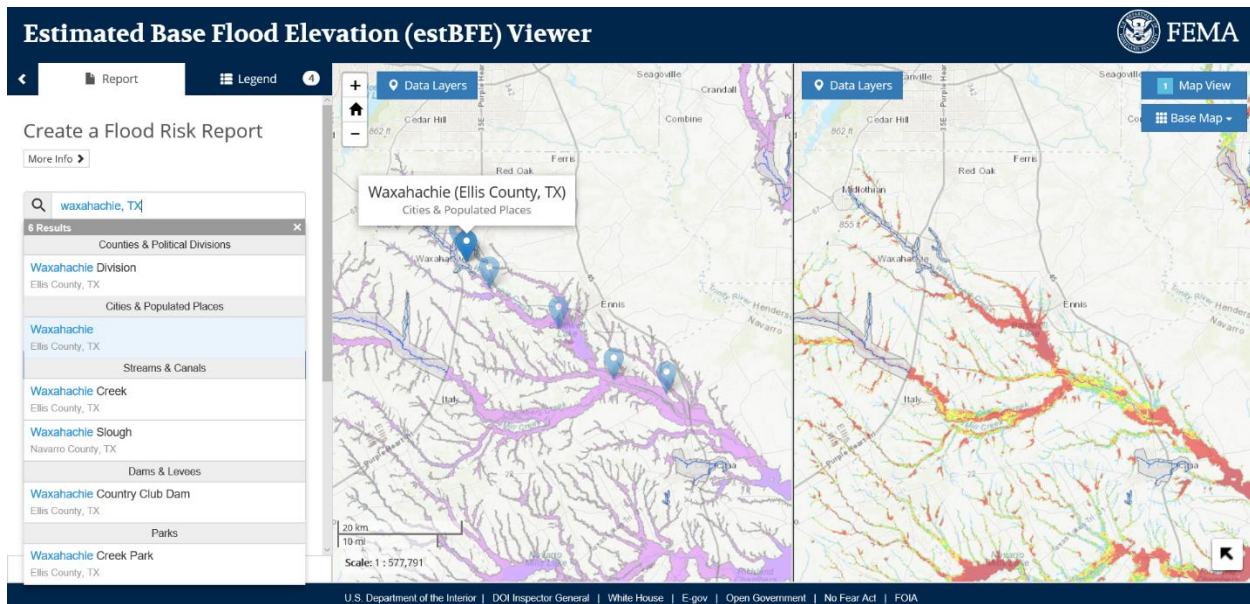
Go to the website: <https://webapps.usgs.gov/infrm/estBFE/>

Step 2:

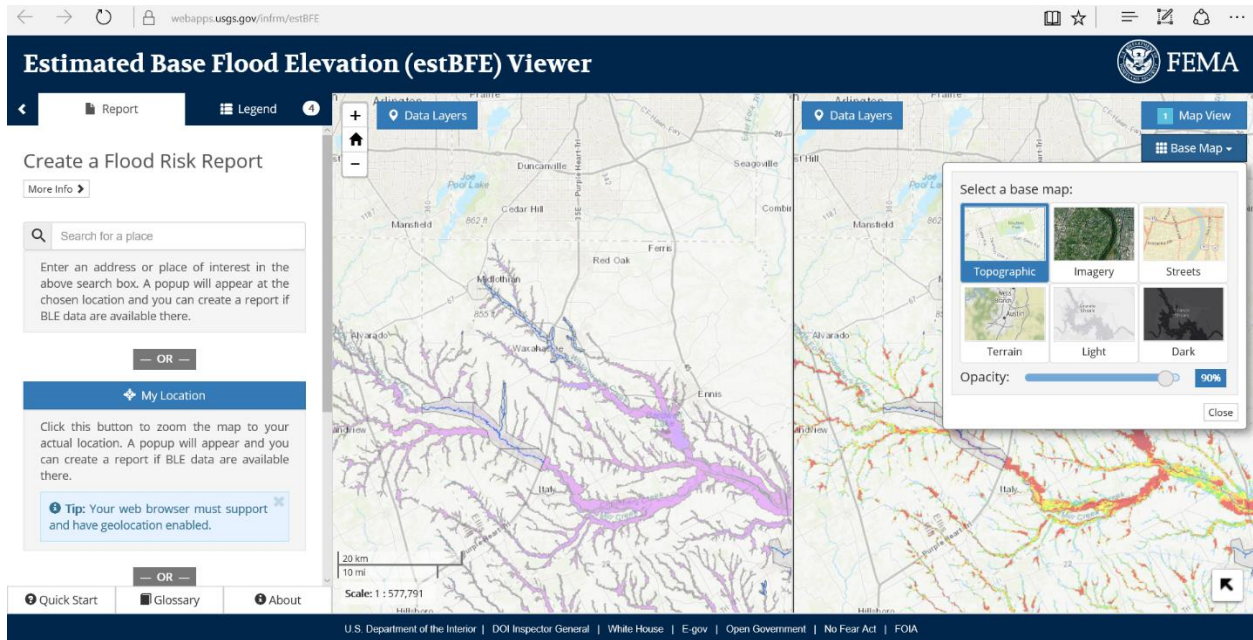
Click on the “Property Look Up”



Step 3: Type Waxahachie, TX    Step 4: Click on the City name on the pop up

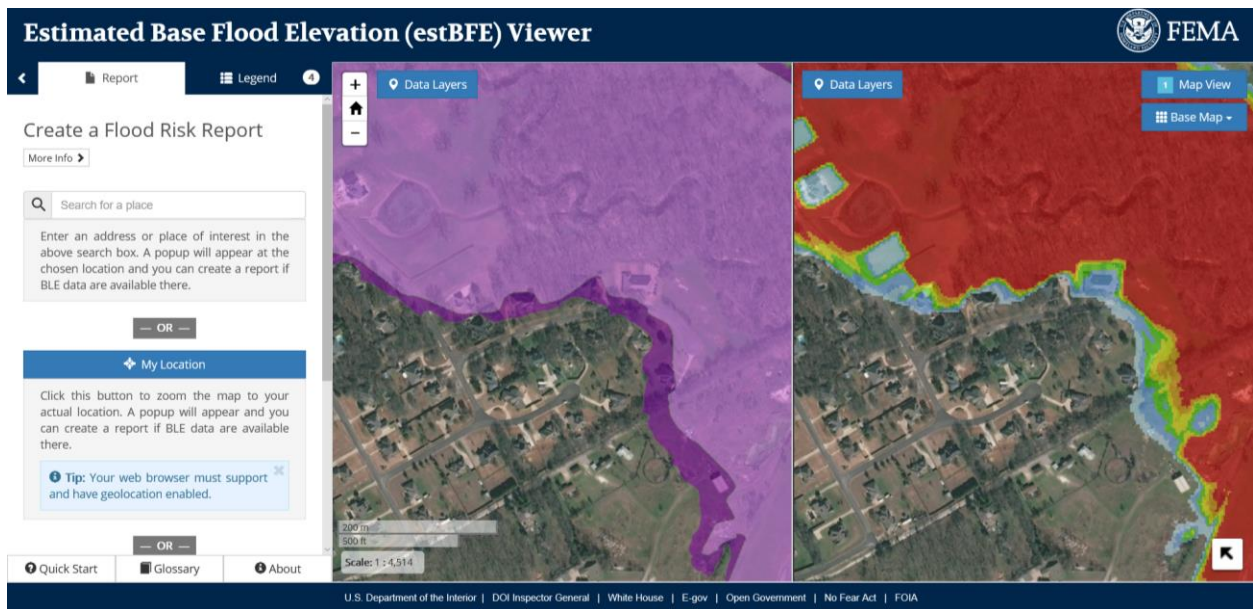


## Step 5: Turn on the Aerial Map



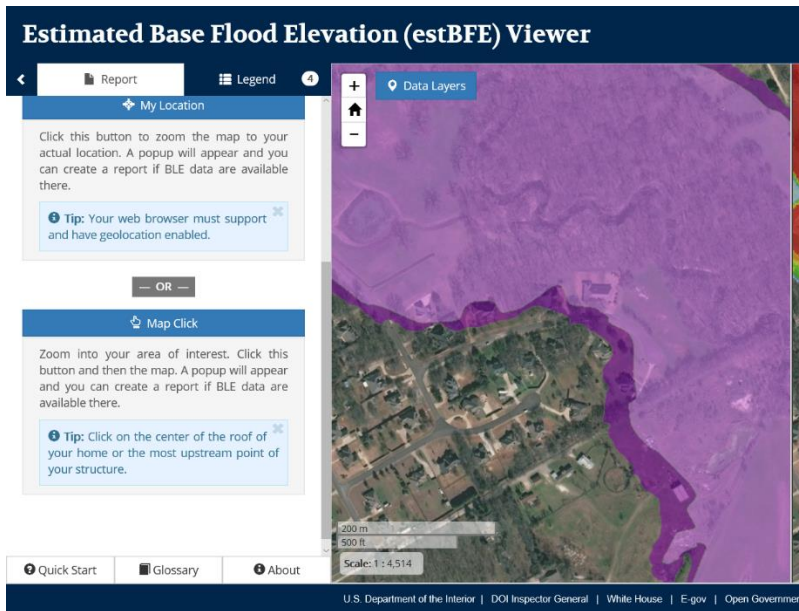
The screenshot shows the FEMA Estimated Base Flood Elevation (estBFE) Viewer interface. The browser address bar displays `webapps.usgs.gov/nfrm/estBFE`. The page title is "Estimated Base Flood Elevation (estBFE) Viewer". The interface includes a navigation menu with "Report" and "Legend" tabs. A "Create a Flood Risk Report" section contains a search box, a "My Location" button, and a tip about geolocation. The main map area shows a wide view of a river system with flood elevation data overlaid in purple and blue. A "Select a base map" dialog box is open, showing options for "Topographic", "Imagery", "Streets", "Terrain", "Light", and "Dark" maps, with an opacity slider set to 90%. The footer contains links for "Quick Start", "Glossary", and "About", and a footer text: "U.S. Department of the Interior | DOI Inspector General | White House | E.gov | Open Government | No Fear Act | FOIA".

## Step 6: Zoom in and out to the area of interest by using the "+/-" button or using the mouse roller.

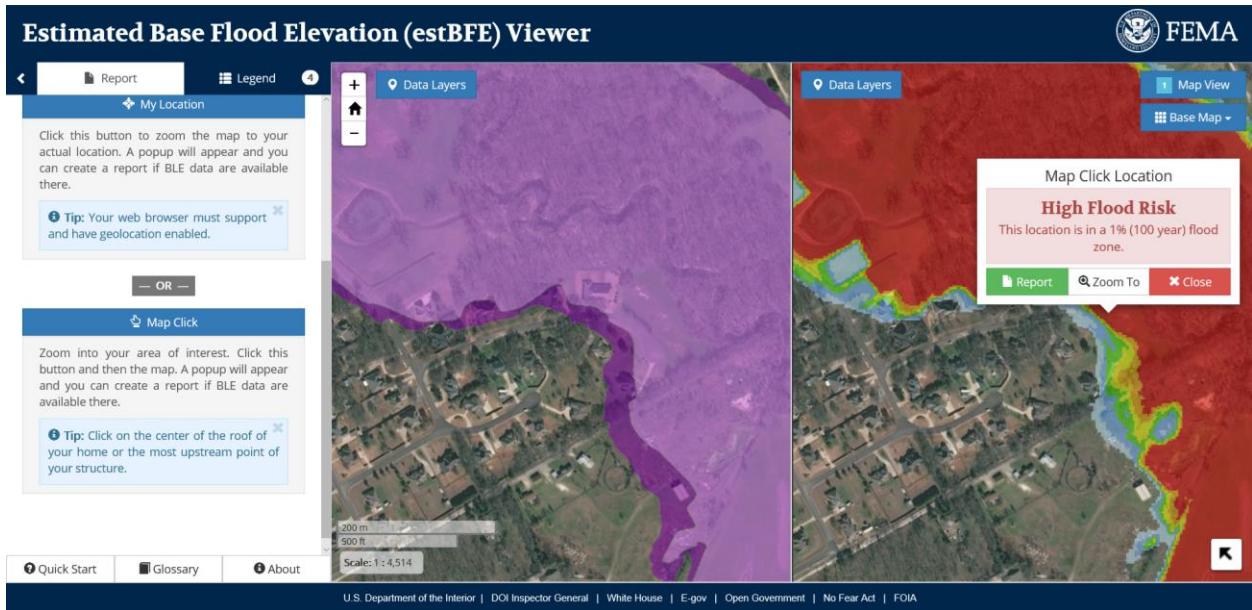


The screenshot shows the FEMA Estimated Base Flood Elevation (estBFE) Viewer interface with a zoomed-in view of the flood area. The browser address bar displays `webapps.usgs.gov/nfrm/estBFE`. The page title is "Estimated Base Flood Elevation (estBFE) Viewer". The interface includes a navigation menu with "Report" and "Legend" tabs. A "Create a Flood Risk Report" section contains a search box, a "My Location" button, and a tip about geolocation. The main map area shows a zoomed-in view of the flood area, with the flood elevation data overlaid in purple and blue. A "Select a base map" dialog box is open, showing options for "Topographic", "Imagery", "Streets", "Terrain", "Light", and "Dark" maps, with an opacity slider set to 90%. The footer contains links for "Quick Start", "Glossary", and "About", and a footer text: "U.S. Department of the Interior | DOI Inspector General | White House | E.gov | Open Government | No Fear Act | FOIA".

**Step 7: Click on “My Location Box or “Map Click” to select a location.**



**Step 8: click on the map and a box will show up. Note that the map has water elevations and depth of the water where you actually click. Try clicking at different locations to see the depth throughout different areas of the property.**



**Step 9: Click “Report”**

The Report will be a printable report as shown below:

**Print**

**Tip:** The map's zoom level can be adjusted by using the +/- zoom buttons. Users should zoom in and verify the location of the marker prior to printing.

**Tip:** The web address can be used to share or bookmark the report for this location.

**Estimated Base Flood Elevation (estBFE)**

**Flood Risk Information Report**

FEMA is providing a look at flood data availability and relative Base Level Engineering analysis through the Estimated Base Flood Elevation Viewer (Estimated BFE Viewer). Base Level Engineering uses high resolution ground elevation data, flood flow calculations, and fundamental engineering modeling techniques to define flood extents for streams. The viewer is an effective tool for property owners, community officials, and land developers to identify flood risk, estimated flood elevations, and flood depths for watersheds where Base Level Engineering has been prepared.

Ellis County, Texas
Latitude 32.3496 Longitude -96.8077

**EXPLANATION**

- Stream
- High risk (1% flood zone)
- Low to moderate risk (0.2% flood zone)

**EXPLANATION**

1% flood depth:

- ≤ 1 foot
- > 1 to 2 feet
- > 2 to 3 feet
- > 3 to 4 feet
- > 4 to 5 feet
- > 5 feet

Flood Event	Estimated Flood Depth*	Estimated Base Flood Elevation*
1 Percent (100 Year)	6.7 feet above land surface	499.7 feet NAVD 1988
0.2 Percent (500 Year)	10.3 feet above land surface	503.4 feet NAVD 1988

\* The information included in this report is based on the location marker shown in the map. Results are not considered an official determination.

**Information made available from the Estimated BFE Viewer needs to be accepted by local community officials to be used for insurance rating purposes.**

### Knowing Your Risk

Base Level Engineering data availability and analysis information is important because it can be used to:

- Inform floodplain management decisions and ordinance administration;
- Identify significant floodplain changes;
- Serve as base modeling for map revisions; and
- Support the Zone A BFE information for a Letter of Map Amendment (LOMA) request.

**HIGH  
Flood Risk**

**10.3 ft** Estimated 0.2% Flood Depth

**6.7 ft** Estimated 1% Flood Depth

Graphic is not to scale.

The approximate depth and 100-year Floodplain Water Elevation will be based on the location you clicked on the map. The closer you click to the creek the deeper results you will get.

On the bottom of the report it provides additional education material regarding the BLE viewer, results and recommendations.

## Using This Data

**Consult the local floodplain manager and building department in your community before making any building or land modifications.** Local officials may use this information to regulate development near flooding sources to create more flood-resilient communities. Local building and permitting requirements vary by community and are based on local decisions and ordinances.

**Everyone is at risk.** The chances of experiencing a flood can vary due to unevaluated conditions, such as the unstudied effects of community growth and development or intense storms uncharacteristic to historical trends. Maintaining or obtaining a flood insurance policy is essential to ensure a property owner is covered if a flood occurs. Visit <http://FloodSmart.gov> for more information on the costs of flooding and to locate an insurance agent in your area.

**Base Level Engineering and the Estimated BFE Viewer tool help identify the BFE in effective Zone As.** If a property owner believes that a structure is above or outside of the base flood extent in an effective Zone A, a LOMA request may be submitted and the flood risk report from the Estimated BFE Viewer should be included. To complete an application, use the online web-based tool or download the paper forms (<https://www.fema.gov/letter-map-changes>). Items needed to apply include the following:

- Copy of a **plat map** that identifies the property and includes the locality's recording information  
**OR**  
Copy of the **property deed** with both locality's recording information and the property's written legal description **and a parcel or tax map** identifying the location.
- **Elevation information** indicating the lowest adjacent grade to the building certified by a licensed land surveyor or registered professional engineer, except for buildings **clearly** shown outside the SFHA. If built recently, building permit files may contain this information. Note the professional may use the estimated BFE (estBFE) results for the BFE value on the elevation form or certificate.
- The **Estimated BFE flood risk information report** relative to the property indicating the estimated flood level and model.
- **A letter of acceptance and support from your local floodplain administrator** for the Estimated BFE information included in your report.

Please note other types of development may require additional documentation and possibly an application fee. A LOMA may result in removal of the SFHA designation and the Federal requirement for flood insurance. However, maintaining a flood policy may still be required by the lender. Flood insurance coverage to repair damage caused by flooding is available for areas outside the SFHA.

## Taking Action

Floods can happen anywhere at any time, which is why it is important to be prepared and to take steps before a flood event to protect your property from costly damage. Mitigation measures to consider include the following:

- **Elevating.** Elevating the lowest floor of new or existing buildings above the BFE reduces risk and may lower flood insurance premiums.
- **Interior Modification.** Raising the equipment servicing the building or infilling basements susceptible to flooding.
- **Dry Floodproofing.** Sealing your structure to prevent floodwaters from entering. Residential property insurance is not reduced if dry floodproofing is used. Only commercial properties receive reduced flood insurance when dry floodproofing is used.
- **Wet Floodproofing and Flood Vents.** Making portion of a building more resistant to flood damage or, in some cases, allowing water to enter during a flood to prevent damages by equalizing pressure on walls and foundations.

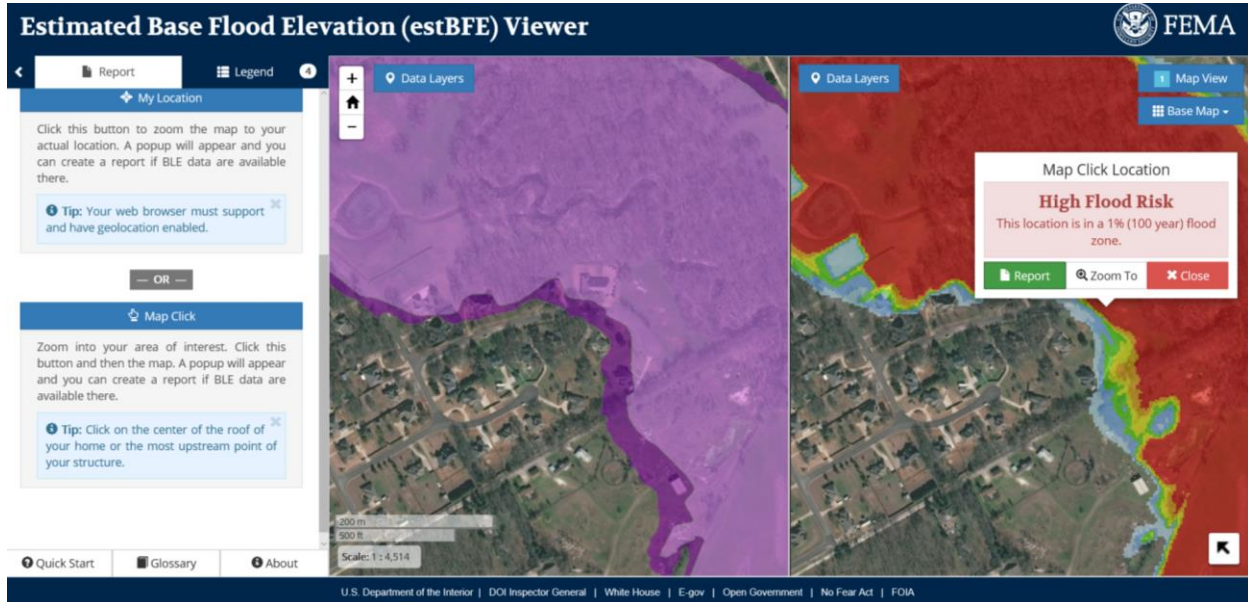
Deciding on the right method to mitigate future damage and loss requires an assessment of various factors: the hazards to your home, permit requirements, the technical limitations of the methods, and cost.

**Discuss the potential mitigation options with your local floodplain administrator and building department to determine the next appropriate steps.**

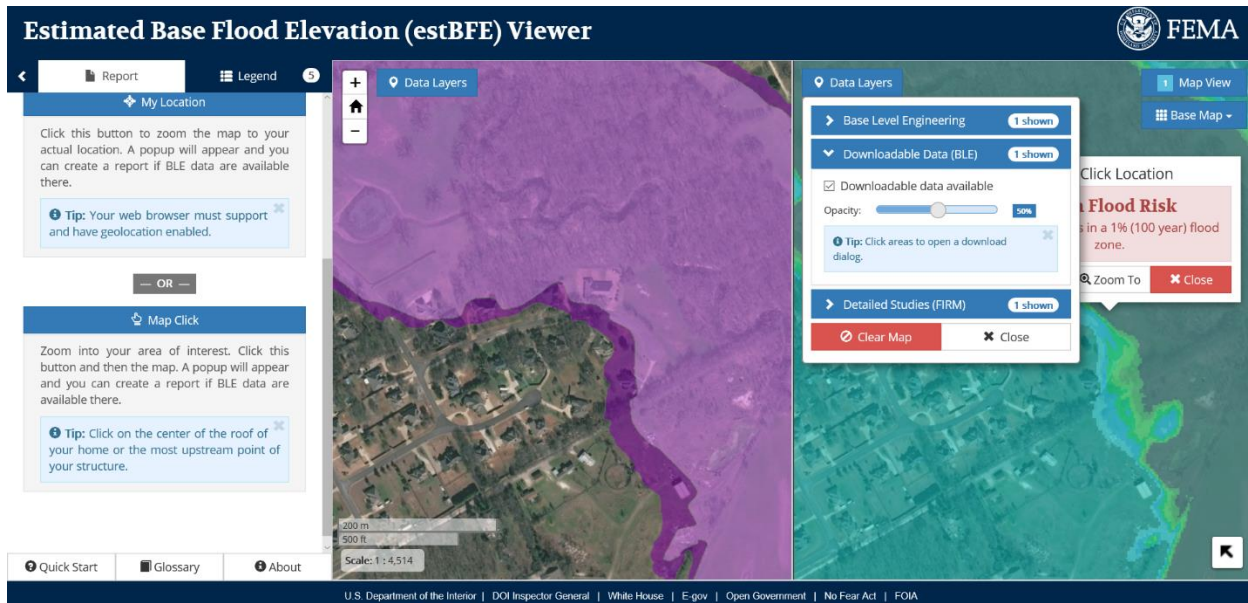
## For Engineers and Surveyors assisting property owners:

You can download the HEC-RAS models, terrain, and GIS files used to create information by following the following steps:

Step 1: Click on “Data Layers”



Step 2: Click “Downloadable Data (BLE)”



Step 3: Click on the map where you want to download the data

Step 4: Select “Download this table” to download add the items on the table

**Download Data** ✕

Chambers

Data Set	File Name	Size	<a href="#">Download this table</a>
HECRAS models	12030109_Models.zip	77.01 MB	<a href="#">Description</a> <a href="#">Download</a>
1% event depths, raster	12030109_Depth01.zip	189.44 MB	<a href="#">Description</a> <a href="#">Download</a>
0.2% event depths, raster	12030109_Depth002.zip	207.54 MB	<a href="#">Description</a> <a href="#">Download</a>
1% event elevations, raster	12030109_Elev01.zip	141.24 MB	<a href="#">Description</a> <a href="#">Download</a>
0.2% event elevations, raster	12030109_Elev002.zip	152.65 MB	<a href="#">Description</a> <a href="#">Download</a>
Vector spatial data, file geodatabase	12030109_VectorData.zip	44.76 MB	<a href="#">Description</a> <a href="#">Download</a>
Reports and documents	12030109_Documents.zip	2.44 MB	<a href="#">Description</a> <a href="#">Download</a>

[✕ Close](#)

Step 4a: or Click the Download button for each item you want

You will need GIS and HEC-RAS software to be able to open these files.

HEC-RAS software was created by the United States of America Corps of Engineers (USACE) and can be downloaded at <http://www.hec.usace.army.mil/software/hec-ras/>

There are a variety of GIS software and viewers available (some of these are free)