FLOOD DATA GUIDE

This guide was created to provide decision makers and practitioners a resource that describes the different flood risk data information available in Louisiana.

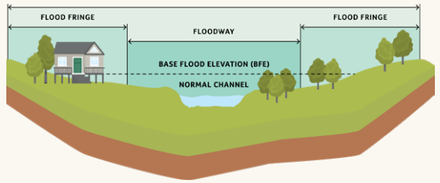
Framing

Flood data and models are all purpose-built tools, just like the knives in your kitchen. Some are for carving, slicing, or chopping. Some are for intricate, time-consuming work, others for quick, brute force work. Models are the same.

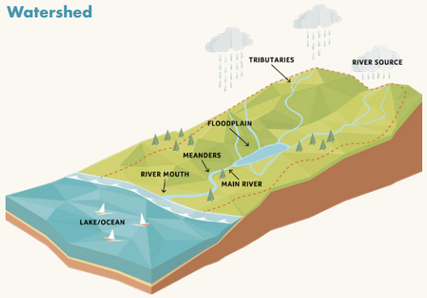
Key Terms

Comprehension of flood data and tools requires a basic understanding of common terminology that is used to communicate risk. First, a watershed is an area of land that drains all of its streams and rainfall to a common outlet, while a floodplain is any land area within a watershed that is susceptible to inundation by floodwaters from any source.[1] Additionally, there are four types of flooding commonly referred when discussing flood risk: *riverine, stormwater, coastal,* and *compound. Riverine* flooding refers to when levels in a river, creek or stream rise, allowing water to flow onto the surrounding land.[2] *Stormwater* flooding is rainfall-related flooding that is independent of an overflowing body of water.[3] *Coastal* flooding occurs when water inundates or covers normally dry coastal land as a result of high or rising tides or storm surges. Finally, *compound* flooding involves the occurrence of two or more of the flood types described above.

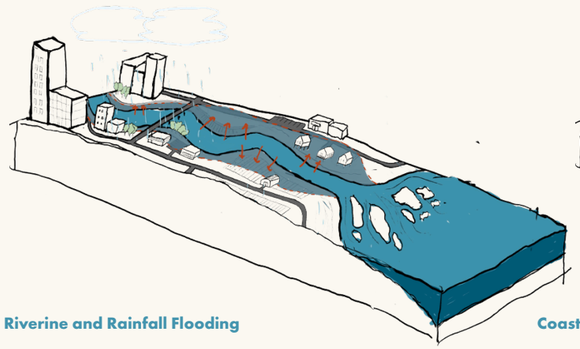
Floodplain



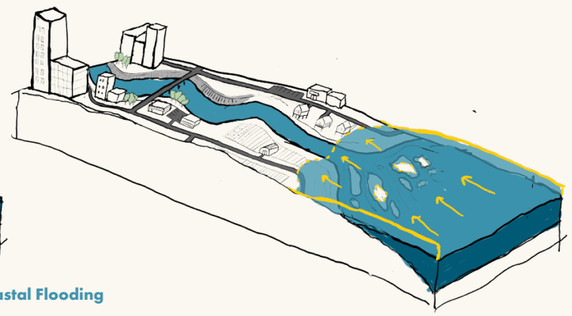
Watershed



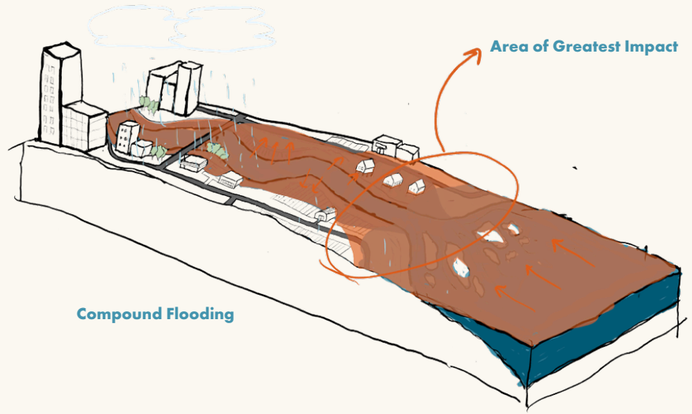
From Why is the Louisiana Watershed Initiative different?, by the Louisiana Watershed Initiative, (https://watershed.la.gov/why-is-lwi-different).



Riverine and Rainfall Flooding



Coastal Flooding



Compound Flooding

1. What makes LWI Different. Louisiana Watershed Initiative. https://watershed.la.gov/why-is-lwi-different

2. FEMA. (2023, March 1). What is riverine flooding and why does it matter to you?. The National Flood Insurance Program for Agents. https://agents.floodsmart.gov/articles/what-riverine-flooding-and-why-does-it-matter-you

3. NOAA Office for Coastal Management. (2025, April 29). Understanding stormwater inundation. Adapting Stormwater Management for Coastal Flood. https://coast.noaa.gov/stormwater-floods/understand/

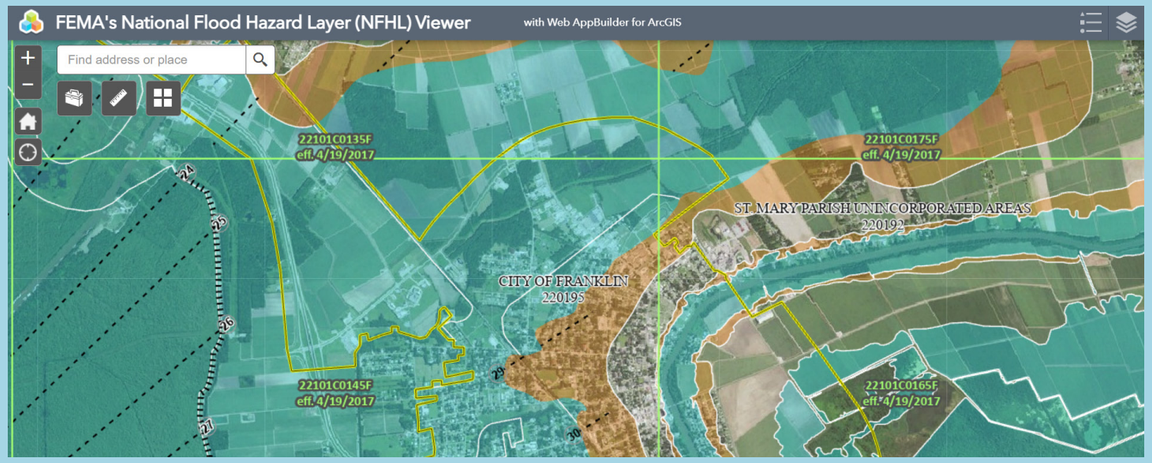
Data and Tools Available - Planning Level

National Flood Hazard Layer Viewer

The National Flood Hazard Layer is a geospatial database that shows current effective flood hazard data provided by FEMA to support the National Flood Insurance program.

- Use to identify your area's regulatory flood zone and better understand your level of flood risk
- Use to print FIRMette, a full-scale, printable section of a Flood Insurance Rate Map (FIRM)

https://www.fema.gov/flood-maps/national-flood-hazard-layer

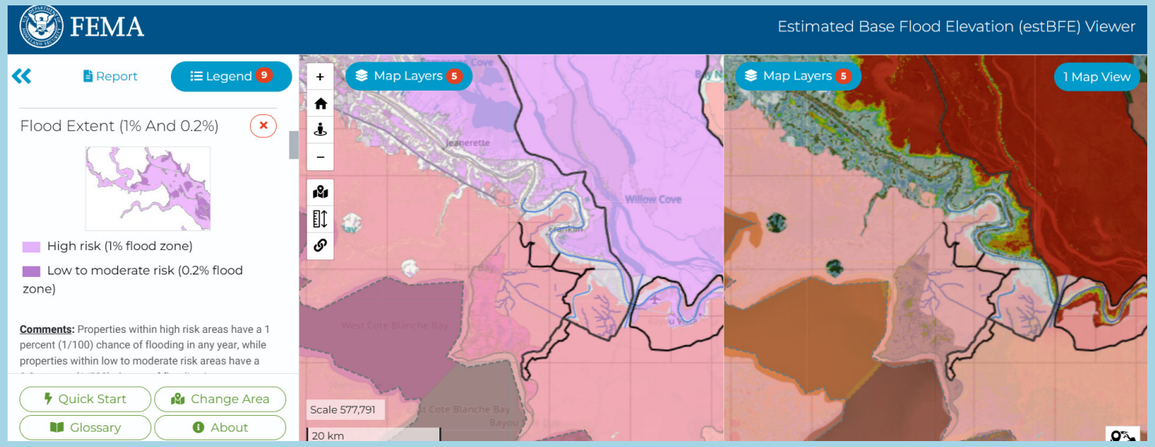


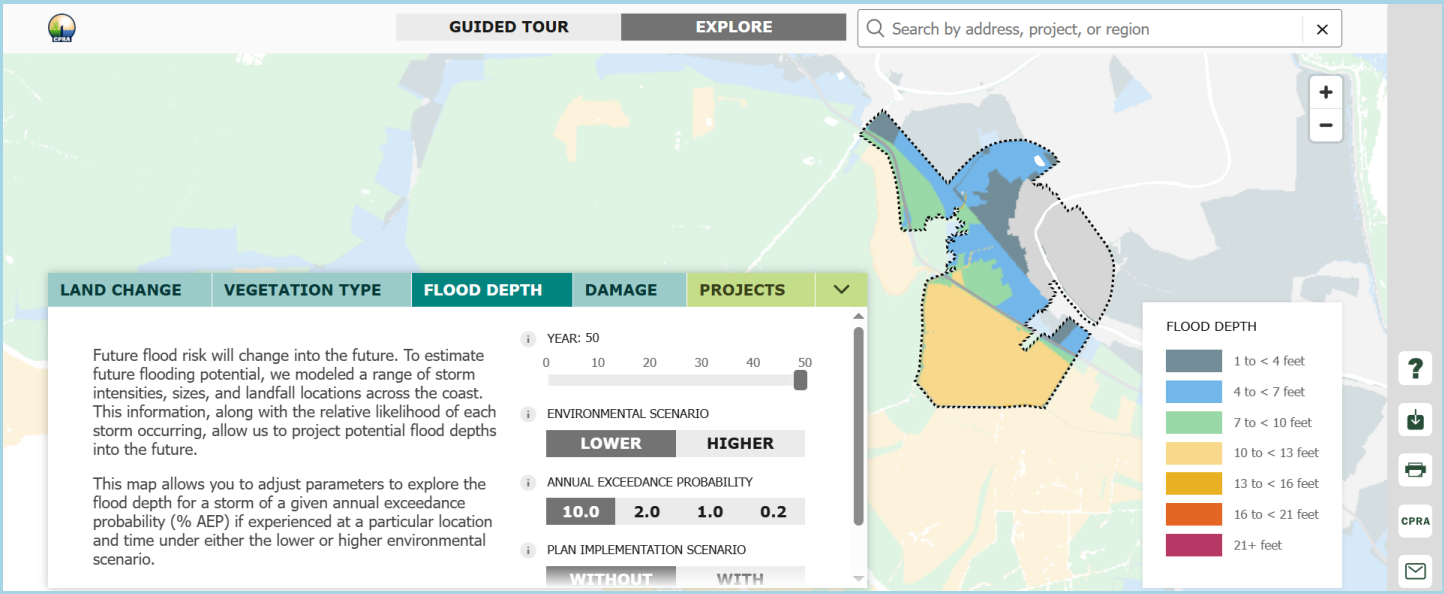
FEMA Estimated Base Flood Elevation (BFE) viewer

The Estimated BFE Viewer is an interactive web portal that allows users to view estimated flood extents for three different event scenarios, and identify estimated riverine and rainfall flood depths in their area.

- Flood depths and extents: 100-yr., 500-yr.
- Flood extents only for 10-yr.
- Can download data and models
- No bridges, pumps, culverts, etc. in models
- Not forward looking, only current conditions
- No interaction with surge downstream
- No damage estimation

https://webapps.usgs.gov/infrm/estbfe





CPRA Coastal Master Plan Data Viewer

This data viewer allows users to view projections of coastal change over 50 years and the potential impacts of restoration and risk reduction projects to address land loss and coastal flood risk.

- Provides flood depths vs rainfall depths
- Shows surge and waves only
- Forward-looking
- Easy to access through data viewer
- Damages based on statewide structure inventory

mpdv.coastal.la.gov

Pluvial/fluvial and compound flood drivers: *Louisiana Watershed Initiative*

This data is the result of the most recent modeling efforts in Louisiana. These new models can help users understand previous storm/flooding events, identify potential damages through an updated structure inventory, and assess suitability for new developments.

- Under-construction flood data viewer—includes riverine/rainfall and compound flood depths
- Statewide structure inventory (builds on CPRA 2023 Master Plan) that contains estimated first floor elevation, occupancy type, and square footage
- Environmental Data and Model Catalogue (EnDMC) - *LWI.EnDMC.org*

The Water Institute as a Coordinating Technical Partner

Since 2015, The Institute has been a part of the FEMA Cooperating Technical Partners (CTP) program. Our FEMA CTP team works with stakeholders across Louisiana to develop hazard identification and risk assessment products, provide outreach support, and empower communities to take action to reduce risk. In 2025, we are focused on engagement in the Bayou Teche watershed centered around risk communication and how FEMA tools can contribute to ongoing community efforts. As a part of this initiative, the Institute has supported the ongoing effort in Franklin, LA to pilot CBCI insurance by providing flood risk information and mapping support to aid in the decision making process for key stakeholders.

Through the CTP Program, the Institute is working to build partnerships with community partners to provide ongoing support and resources related to flood risk and products. If you have any further questions about the program or would like to discuss ways to partner with our team for work around flood risk communication in your community, please contact Brooke Mehney (bmehney@thewatertinstitute.org).

The Water Institute FEMA CTP Webpage: *http://bit.ly/4iLQsUZ*

COMMUNITY RESILIENCE CENTER AT THE WATER INSTITUTE

thewaterinstitute.org/crc

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