**Data gathering**
Measurements are made of the topography around the river, along with any culverts, bridges, and road crossings. LiDAR uses an airplane to collect ground elevation over a large area, and ground survey supplements the airborne data. Flood flow data determine how much water there will be in a river during a flood event.

**Engineering and floodplain modeling**
The elevation and survey data are combined with the flood flow data to determine where the water will go when it overflows the channel and how far it will spread out. The area shown to be underwater and at high risk is mapped as the regulatory floodplain.

**Draft Data available public review**
Draft data is delivered to the communities. Public review of the draft data.

**Preliminary Data public comment and appeal period**
FEMA Preliminary Maps are produced and ready for public review and comment period. A virtual public open house will be held on March 18, 2021. A 90-day official comment & appeal period will be held in mid 2021.

**Flood Insurance Rate Maps become effective**

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### Flood Study Conducted
4 steps of a flood study.
1) Survey & LiDAR  
2) Hydrology (flood flow)  
3) Hydraulics (engineering)  
4) Mapping (delineation)

### Public Review
A public open houses is usually held during this time. Due to COVID-19 public open houses will be held virtual.
Public comments are encouraged after review of the data. There will be an official 90-day appeal period after the maps become preliminary.

### Resiliency and Mitigation efforts
Once new maps become effective the community can determine what mitigation efforts it would like to pursue to reduce flood risks.