

Flood Modeling Now More Accessible

When was the last time your district tried to get information about the potential for a flood affecting your facilities? Five years ago, virtually the only source was a flood map from FEMA as part of the National Flood Insurance Program or the property schedule in your Fund coverage documents. Access was difficult and time consuming. It was hard to find the map that illustrated risk to your location then and many changes have been made to flood zones since.

Fortunately, the FEMA process is much easier now with the RiskMAP product on their website. Access is through www.msc.fema.gov/portal/home that takes you to the Map Service Center. Enter an address, place or GPS coordinates and a map appears with the location and nearby flood zones. There is additional information on the map and at the National Flood Hazard Layer mapping available with a click. FEMA describes the maps on the website as:

“the current effective flood data for the country where flood maps have been modernized. It is a compilation of effective Flood Insurance Rate Map (FIRM) databases and Letters of Map Revisions.”

A look at two specific locations, one residential and one commercial, showed a google satellite map with the specific location accurately marked and nearby 100 and 500 year flood zones clearly marked. Dates on the map were in April 2020.

Another source that is also very easy to use and free is Flood Factor, sponsored by the nonprofit First Street Foundation. The site allows you to enter an address and a map of the location and the flood probability for it is displayed. The website is www.floodfactor.com. The statement of purpose is:

Flood Factor is a free online tool created by the nonprofit First Street Foundation that makes it easy for Americans to finally find their property’s current and future risk of flooding, learn if it has flooded in the past, and understand how flood risks are changing because of the environment. Flood Factor was created to make the most cutting-edge flood science: Accessible to all, Available at the property level and Easy to understand (sic).

First Street Foundation’s mission is to quantify and communicate America’s flood risk so anyone can find and understand their flood risk and make informed decisions for the future. By making flood risk data freely available for all, individuals and communities can prepare for and mitigate risks before they become a reality. (Flood Factor website)

Flood Factor has a tremendous amount of information on its website about flood risk, mitigation and probability. It duplicates FEMA’s RiskMAP information but goes beyond what FEMA provides by stating a flood probability and providing different flood scenarios depending on the type of flood (tidal surge, intense rainfall, stream overflow, etc.).

There are also flood Modeling products that must be paid for but may solve a need for determining flood probabilities for large numbers of locations or particular watershed issues. A company named RMS has a software product called RMS Inland Flood HD Model at www.rms.com/models/flood, which is marketed to insurance companies to assess the flood risk of all of their customers in a particular state or geographic area. They also target reinsurance companies that are gradually moving into the private flood insurance market. It can also be used to model the effect of a flood using different inputs for rainfall, rate of rainfall, changes to permeability and other factors. This type of Modeling software is also available from Jacobs, a large engineering firm at www.FloodModeller.com. Jacobs markets its product to large construction firms, municipalities and large corporations with significant flood exposures. Both the RMS and Jacobs systems are fee based, but may be worth the cost to help protect infrastructure or determine flood flows under different scenarios in whole watersheds. Clients work with software consultants to provide information and flood probabilities for their particular projects.

It is important to note that coverage for flood is determined by the Fund for each location or even structures at a given location. The software referenced above should not be relied upon for that purpose. Please contact the Fund related to questions you might have on flood coverage for a particular property.