

Exploring the availability of DFIRMs on the Internet

A demonstration of FEMA's Google
Earth NFHL overlay & Illinois Map
Modernization's Google Map overlay

What's out there?


- Variety of methods for making DFIRMs accessible
 - Map Viewers (ArcServer & Google Maps)
 - Data and Map Downloads
 - Google Earth
- Map Service Center, some private firms, some states, some counties.

Two examples of how DFIRM data is made available to the public through the internet

- FEMA's Map Service Center
 - National Flood Hazard Layer (kmz) displayed in Google Earth
 - Map downloads available on the MSC website.
 - Server-side NFHL viewing application (ArcServer) on the MSC website.
- Illinois Flood Maps displayed in Google Maps, map downloads are also accessible.

National Flood Hazard Layer

- Contains a variety of flood hazard layers
- Continually updated as the map modernization project progresses
- Downloadable from the Map Service Center (kmz file)

**FEMA**

Map Service Center

Product Catalog | Map Search | Quick Order | Digital Post Office | Help

Product Search by...

Address **Map Panel ID**

1) Select a Product:
Flood Maps

2) Enter an Address:
Street:
City:
State: Zip:

New to the FEMA Map Service Center?

- Homeowners/Renters
- Real Estate/Flood Determination Agents
- Insurance Agents
- Engineers/Surveyors
- Federal/Exempt Customers

What are you looking for?

- Flood Maps
- FIRMettes
- DFIRM Databases
- MapViewer - Web
- Documents, Publications & Forms

More Information

- How do I find the flood map for my area?
- What is a FIRMette?
- How do I find a LOMC?
- Definitions of FEMA Flood Zone Designations
- Product Information
- Price List
- How to Order
- Need Assistance?

Announcements

New Fees Beginning October 1, 2007

Please contact the MSC Customer Service Center by telephone at 1-800-358-9616 or by e-mail at FEMA-MSCServices@dhs.gov for questions or additional information.

FIRMette - Desktop (F-MIT)

The Map Service Center now has version 2.2 of the FIRMette - Desktop viewer (formerly F-MIT) available for download. This new version supports FIRMette creation for both two color and black and white maps. You can download it [here](#).

MapViewer - Desktop (Beta)

FEMA is developing a simple tool for viewing GIS flood data. A beta of this tool can be downloaded [here](#). ([learn more](#))

Los Angeles County Unincorporated and Incorporated Areas, California Letter of Map Revision Available

Case Numbers: Several - [Click to View](#)
Effective date: September 29, 2008

San Bernardino County, California Letter of Map Revision Available

Case Number: 08-09-1595P
Effective date: August 29, 2008

City of Sacramento, Sacramento County, California Letter of Map Revision Available

Case Number: 07-09-0266P
Effective date: February 21, 2007

City of North Platte, Nebraska Letter of Map Revision Available

Case Number: 07-07-0322P
Effective date: July 7, 2008
- and -
Case Number: 04-07-A439P
Effective date: May 4, 2006

Log On

User ID (email address):
Password:

[» Forgot Password?](#)
[» Register](#)

Why register?

NFHL

National Flood Hazard Layer ([learn more](#))

View the NFHL Online using **MapViewer - Web**

Order **NFHL GIS Datasets** by state on DVD


Use **Web Map Service** in your own GIS application

Use **Web Map Service** in Google Earth™

[Got Comments?](#)

FIRMette Tutorial

Learn how to create FIRMettes. They're free!



[Click here to learn how to create a FIRMette.](#)

<https://hazards.fema.gov/femaportal/wps/portal/NFHLMWMSkmzdownload>

available through FEMA's Map Service Center (MSC) at <http://msc.fema.gov>.

FEMA anticipates future improvements to the .kmz files, so please revisit this page occasionally to obtain the latest version.

Stay Dry

"Stay Dry" is a focused application that provides basic flood hazard map information from FEMA's National Flood Hazard Layer for an address. It allows you to view flood hazard zones, cross sections and their labels, community names and boundaries, Flood Insurance Rate Map numbers and boundaries, and Letter of Map Revision case numbers and boundaries.

For best performance please delete or turn off previous versions of the "Stay Dry" or "FEMA NFHL" folders that you have loaded in Google Earth before using the new version of "Stay Dry."

[Stay Dry v2.0.kmz](#)



[Stay Dry Google Earth Application Instructions](#)

Version 2.0 has one step, in which the user provides an address and receives a view of flood hazard information. Previous versions required two steps before flood hazard information could be viewed.

Please use version 2.0 instead of previous versions.

FEMA NFHL

"FEMA NFHL" is a general application that provides for the display of flood hazard zones, floodways, Coastal Barrier Resources System and Otherwise Protected Area units, community boundaries and names, base flood elevations, cross sections and coastal transects and their labels, hydraulic and flood control structures, and Flood Insurance Rate Map and Letter of Map Revision boundaries and numbers. Additional reference layers include the status of NFHL data availability, point locations for Letters of Map Amendment (LOMAs) and Letters of Map Revision Based on Fill (LOMR-Fs), Q3 base flood, and subbasin hydrologic units. You control the information displayed by turning layers on and off. A basic knowledge of Google Earth and FEMA flood hazard information will help users of this application.

The name of each layer is hyperlinked to a description of the layer, the map symbols used for the layer, and links to other FEMA web sites relevant to the layer. If a layer is turned on, clicking the text below the name of the layer (text that starts with "Draws at...") zooms the Google Earth view to a sample display of the layer. Layers are organized for display at one or more of three "eye altitude" (map scale) ranges in Google Earth: status maps and subbasins at high altitudes, regional overviews of flood hazards at medium altitudes, and detailed flood hazard maps at low altitudes. Click on the hyperlinked folder name of the application to see the altitudes at which data in the layers are displayed.

For best performance please delete or turn off previous versions of the "Stay Dry" or "FEMA NFHL" folders that you have loaded in Google Earth before using the new version of "FEMA NFHL."

[FEMA NFHL v2.3.kmz](#)



[FEMA NFHL Google Earth Application Instructions](#)

NFHL (what layers?)

- Special flood hazard areas
- LOMRs
- BFE, XS, Structures, and stream lines
- Political boundaries
- Panels
- Project status
- River sub-basins

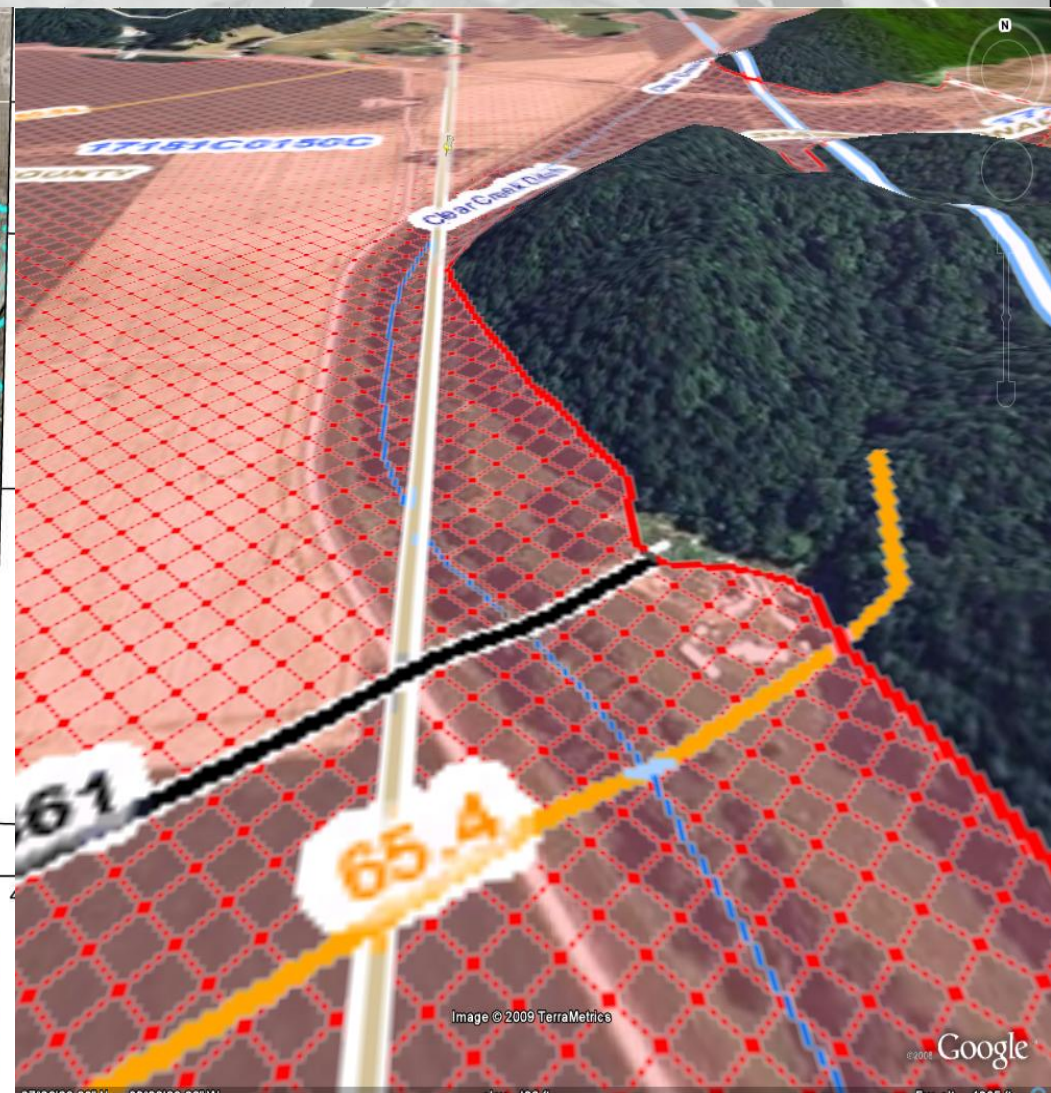
Google Earth

- Downloadable application that receives streaming data from the internet
- Allows for overlaying data
- Can control data layers (primarily on/off)
- Control over perspective and can create/save markers.
- Supports .kml, .kmz, and raster data types
- Comes with default layers: (3d building, POI, Roads, City names, etc.)
- Performs searches (address, city, zip code)

Side-by-side comparison

Paper DFIRM

Google Earth – NFHL



An aerial grayscale map of a river meandering through a landscape. The river is dark and prominent, forming a large loop. The surrounding terrain is lighter and shows some topographical features like ridges and valleys. The word "DEMO" is overlaid in the center in a large, dark blue, sans-serif font.

DEMO

Google Earth - NFHL

Illinois Map Mod data overlay

- Layers served up by ArcServer
- Displays “Live” data in the google map overlay
- When a county goes to preliminary status, the data is published to illinoisfloodmaps.org
- Downloadable geodatabase once a county goes to “final” status

Google Maps

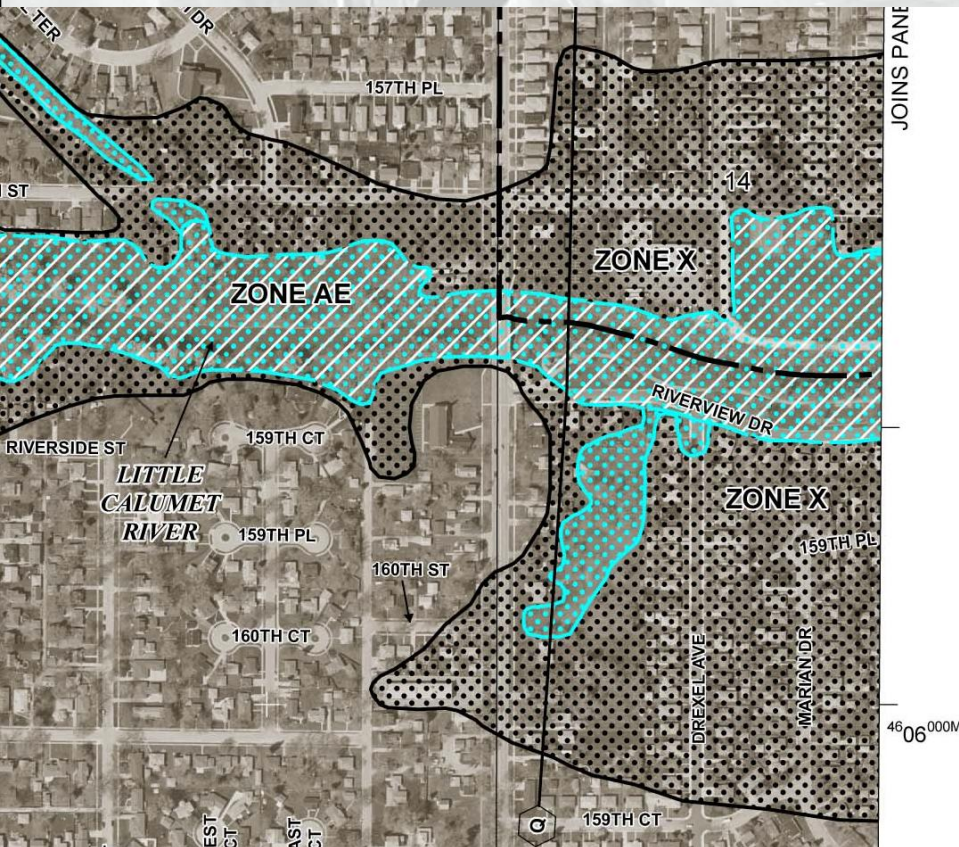
- Online application (server side)
- Can overlay data using Google's API with javascript
- No control of appearance or functionality
- Performs searches (address, city, zip code)

Mashup functions

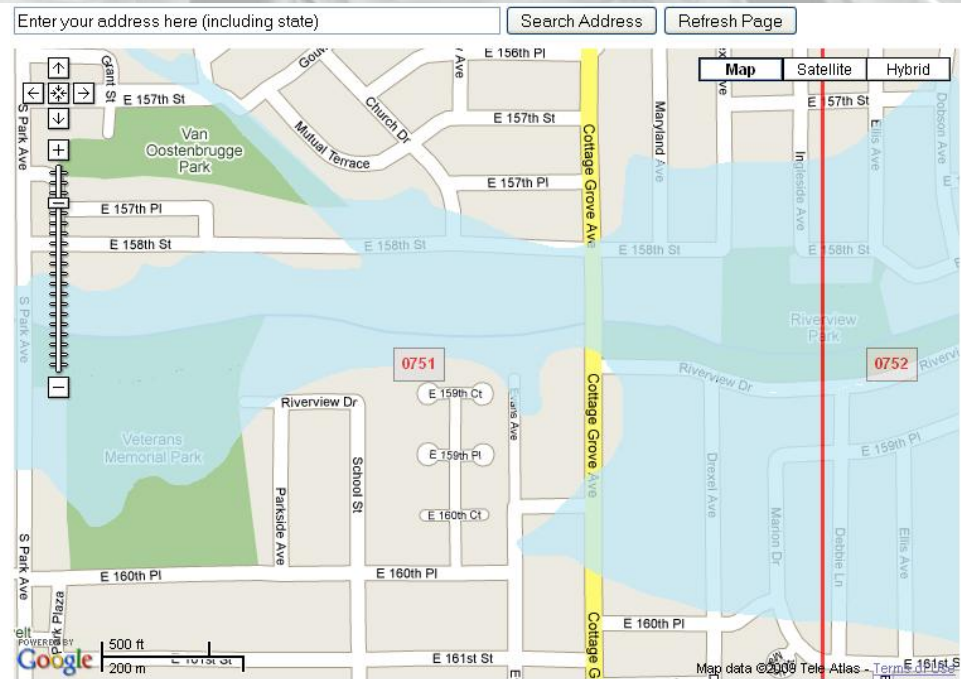
- Displays special flood hazard areas
- Provides an address locator
- Designed for determining correct panel
- Links to DFIRM .jpgs

Side by side comparison

Paper DFIRM



Google Map Mashup



A grayscale aerial photograph of a river valley. A thick, solid black line is overlaid on the map, tracing the course of a river. The river starts from the top left, flows down, then turns right to form a large loop, and finally continues towards the bottom right. The surrounding terrain is hilly and shows some road networks.

DEMO

Google Map with Overlay