Stay Dry (version 3.0)

View FEMA Flood Hazard Information Using Google Earth

Purpose and Appropriate Use

The "Stay Dry" kmz file allows you to use Google Earth[TM][1] to view basic flood hazard information from FEMA's National Flood Hazard Layer (NFHL)[2] using an address or other location information. You can view flood hazard zones and boundaries, and Flood Insurance Rate Map (FIRM) numbers and boundaries where available.

FEMA publishes new FIRMs in the form of paper maps, digital map images, and digital geospatial flood hazard data like those in the NFHL. When used appropriately, these representations are equivalent to one another and represent official FEMA designations of special flood hazard areas, base flood elevations, insurance risk zones, and other regulatory information. If you plan to use the mapped flood information displayed in Google Earth for official purposes, please ensure that imagery and other map information displayed with the flood data meet FEMA's standards for map accuracy[3].

Before You Start

You must have the Google Earth viewer software installed on your computer. The starting point for obtaining the software is http://earth.google.com/. Information about the system requirements needed for your computer to run the software is available through http://earth.google.com/support/. A user guide is available at http://earth.google.com/userguide/. Your computer must have a high-speed internet connection. Download the "Stay Dry" kmz file to your computer to allow the Google Earth viewer to access NFHL data. It is available through https://hazards.fema.gov/femaportal/wps/portal/NFHLWMSkmzdownload. Download the file to your computer using the instructions provided on the web page. For best performance please delete or turn off previous versions of the "Stay Dry" or "FEMA NFHL" applications that you have loaded in Google Earth.

Opening the Application

First session: Double-click on the "Stay Dry" kmz file that you downloaded to your computer. Google Earth will open and display the "Stay Dry" welcome screen (see area A in Figure 1) and the "Stay Dry and FloodSmart!" folder under Temporary Places in the "Places" panel (area B). Other important areas are the "Search" entry field (area C), the navigation controls for Google Earth (area D), and the eye altitude ("eye alt") readout (area E).

Sources of Additional Information

Questions or comments about the Stay Dry application, please email miphelp@riskmapcds.com. Include the words "Google Earth" in the subject of your message

To view and buy flood maps and data see the MSC Web site at http://msc.fema.gov

For information and resources associated with using or requesting changes to FEMA Flood Maps: See the Flood Hazard Mapping Web site at http://www.fema.gov/plan/prevent/fhm/index.shtm

For general information about flood risk, flood insurance, and the National Flood Insurance Program see the FloodSmart Web site at http://www.floodsmart.gov
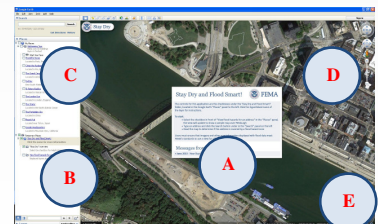

Figure 1. Opening view for the "Stay Dry" application. Areas of interest include the (A) welcome message, (B) "Stay Dry and Flood Smart!" folder in the Places panel, (C) "Search" entry field, (D) navigation controls, and (E) eye altitude readout.

Subsequent sessions: If you save the "Stay Dry" application at the end of a Google Earth session, it will be available when you re-open Google Earth in later sessions. Otherwise, double-click on the "Stat Dry" kmz file to open it.

Finding the Flood Hazard for Your Location

To view flood hazard information:

1. Select the checkbox in front of "View flood hazards for an address" in the Places panel (see area B in Figure 1). The map legend and a sample map will be displayed.

2. In the "Search" entry field (see area C in Figure 1), enter an address (e.g., 1927 Ocean Street, Santa Cruz, CA).

3. Click the Search button to go to the location. (Be sure that the eye altitude is 10,000 feet or lower.)

4. Read the flood hazard information on the map (see Figure 2). Use the map legend to interpret the symbols.
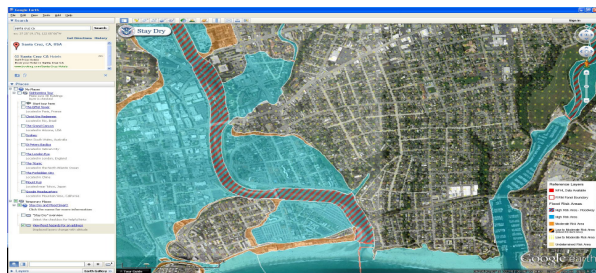

Figure 2. Results after searching an address in Santa Cruz, California. The flood hazard information is displayed.

If flood hazard information is available the map displays:

- *Flood hazard zones*: Zones are broken into five categories: high risk area-floodway, high risk area, moderate risk area, low to moderate risk area(reduced risk due to levee), low to moderate risk area, and undetermined. Refer to the legend for the symbol representation of each zone. To learn the definitions of the zones, click on the layer name "View flood hazards for an address." A set of instructions will open. Click on the link "Defining Flood Risks" at the bottom of the instructions. The definitions will appear in a new window.

- *FIRMs*: The 11-character number and boundaries of map panels are shown in light blue. If only a number is visible, the entire view is within the panel.

If flood hazard information is not available visit the MSC Web site at http://msc.fema.gov to find other flood hazard information for your location.

Other Notes

- View the instructions by clicking on the hyperlinked names in the Places panel. (See area B in Figure 1.)

- Other location information (e.g., latitude and longitude coordinates) can be substituted for an address. Be sure that the eye altitude of the map is 10,000 feet or lower.

- If you cannot see the "Stay Dry and Flood Smart!" folder or "Search" entry field (areas B and C in Figure 1), turn on the sidebar. Go to the menu bar (File, Edit, View, etc.) at the top of the Google Earth window, click the View button, and select the Sidebar option.

- If you cannot see the "Eye alt" (eye altitude) readout (area E in Figure 1), turn on the status bar. Go to the menu bar (File, Edit, View, etc.) at the top of the Google Earth window, click the View button, and select the Status Bar option.

Ending the Session

When you are finished viewing flood hazard information but want to do other activities in Google Earth, deselect the checkbox in front of "Stay Dry and Flood Smart!" to turn off all flood information. When you close Google Earth, it will ask what you would like to do with the "Stay Dry" folder. If you:

- Answer "Save," Google Earth will add "Stay Dry" to your "My Places" folder (see area B in Figure 1). "Stay Dry" will be available each time you use Google Earth.

- Answer "Discard," Google Earth will not save "Stay Dry" internally for later use. You can use "Stay Dry" again by double-clicking on the kmz file you saved to your computer.

- Answer "Cancel," Google Earth will remain open.

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