

Google Earth and Wetlands Training

May 9, 2012

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Section I. Google Earth Overview

1. Download Google Earth from www.earth.google.com; click on the Download Google Earth button.



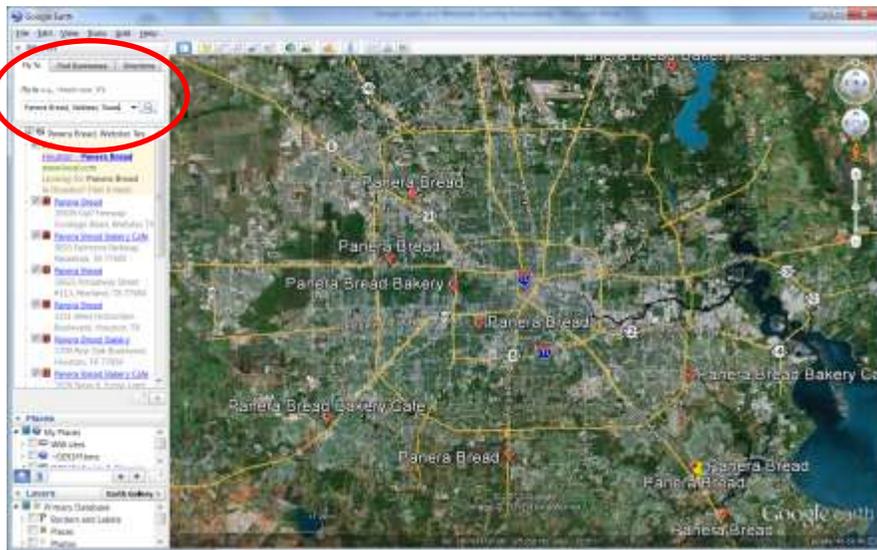
If you do not want the Internet browser “Google Chrome” loaded, click “no”.

Click on the “Agree and Download” at the bottom of the page.

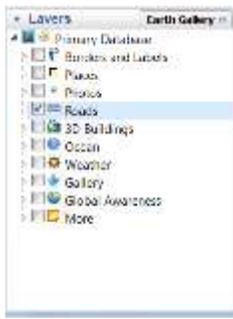
Click “Run”

Click “Allow Google Install to access your PC” or Mac.

1. In the Google “Fly To” Search Tool. Type in “**PANERA BREAD, WEBSTER, TEXAS**”.



2. If you are new to Google Earth take a few minutes to:
 - a. Familiarize yourself with the basic feel of the software
 - i. Use the zoom in and out tool on the top right on the screen.



- ii. Click on layers in the table of contents (Ex: Click on and off the “roads” layer in the bottom left hand corner)

3. Click on the “**Historical**” tool - at the top left of the screen.

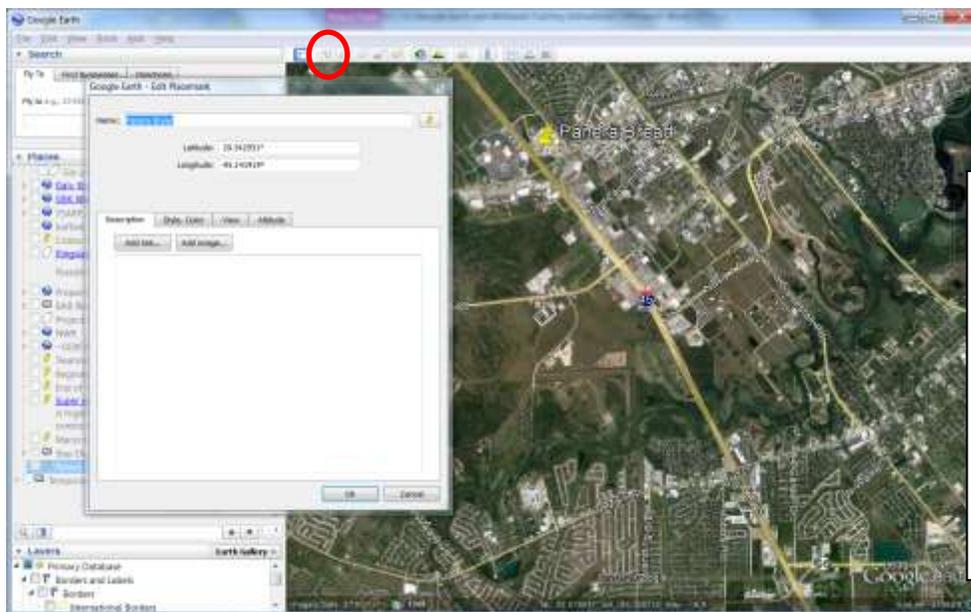


Play around with using the scroll bar to display new and historic aerials.

4. Now use the “**Measure**” tool to measure distance from one point to the next. (Google Earth Pro will measure area, cost \$400 – free for non-profits with approval).



5. Add a Point using the “**Placemark**” tool.



You can drag the Placemark to move it anywhere on the screen.

You can name the Placemark by typing in text at the top of the pop up window.

Click on “OK” to save the Placemark to the Temporary folder in the Table of Contents.

- a. Name the Placemark “**Panera Bread**” (Notice that is has the Lat/Long listed).

Section II. Google Earth Layers Associated with Wetland Identification

A. US Fish and Wildlife Service's National Wetland Inventory Wetland Layer

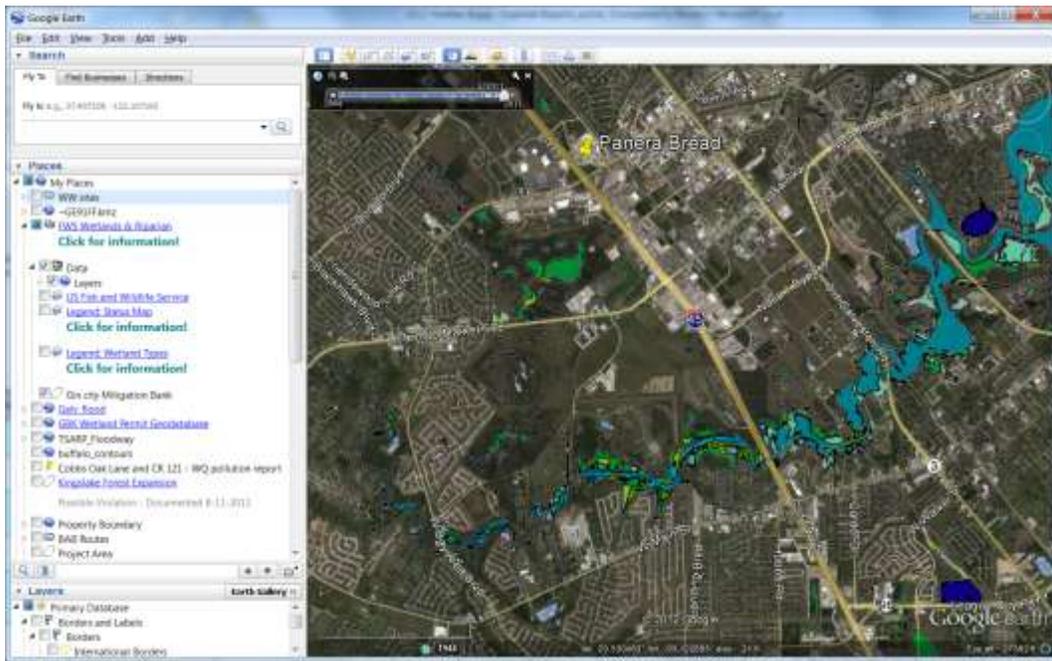
1. Go To: <http://www.fws.gov/wetlands/>
2. You can also Google "USFWS NWI".
3. Click on "**View Wetlands Layer with Google Earth**" on the left table of contents.



4. Now click on the "**WetlandsData.KMZ**" text in the middle of the page (the KMZ file should automatically open in Google Earth and appear:



5. Under "Places" in the Table of Contents - Click **off** the "**Legend Status Map**" by unchecking the box next to the name. Then zoom in to Clear Creek, just south of Panera Bread along I-45 (notice as you zoom in the USFWS NWI classification names appear (EX: E1UBL). *(Please see the USFWS NWI website for information regarding these classifications)*). Also notice that the layer is now in the "Temporary Places" table of contents. Use the "Save to My Places" tool by right clicking on the layer.

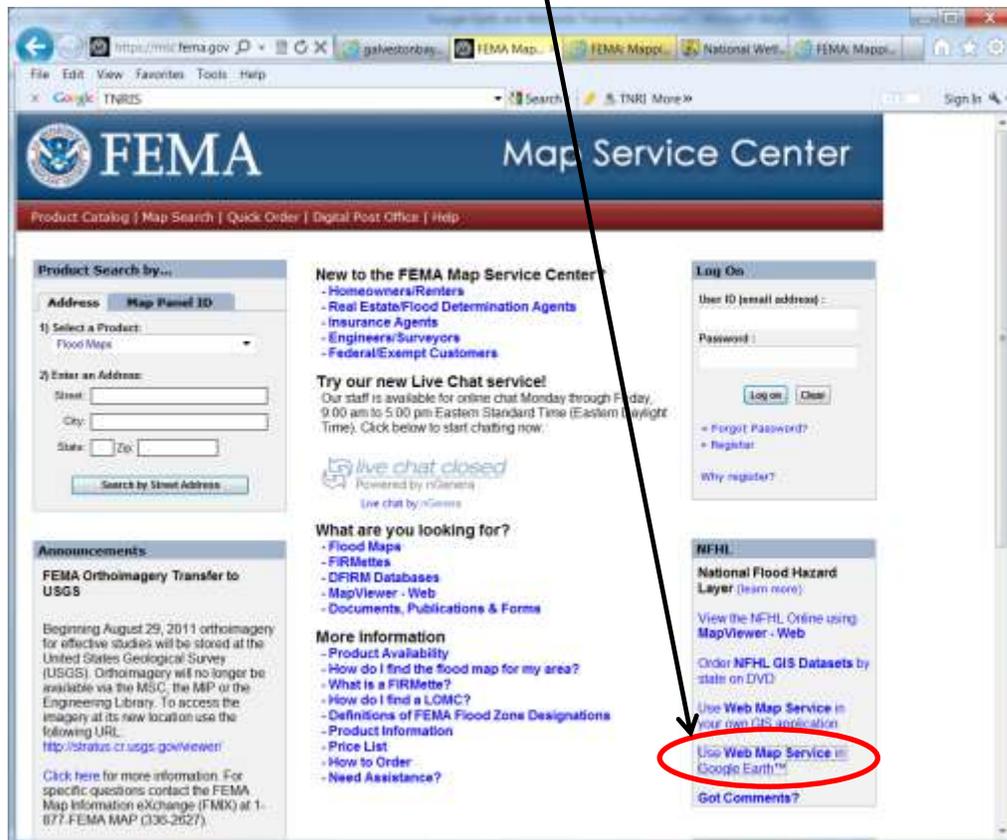


B. FEMA Stay Dry Floodplain Mapping in Google Earth

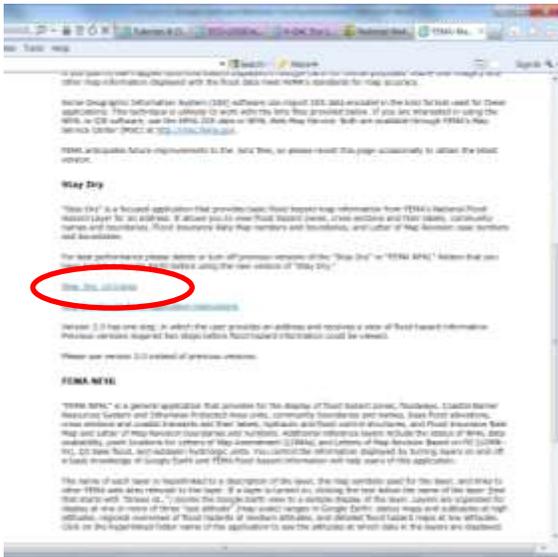
1. Download the Stay Dry Google Earth Dataset:

Go to FEMA's Map Service Center (MSC): <http://msc.fema.gov>

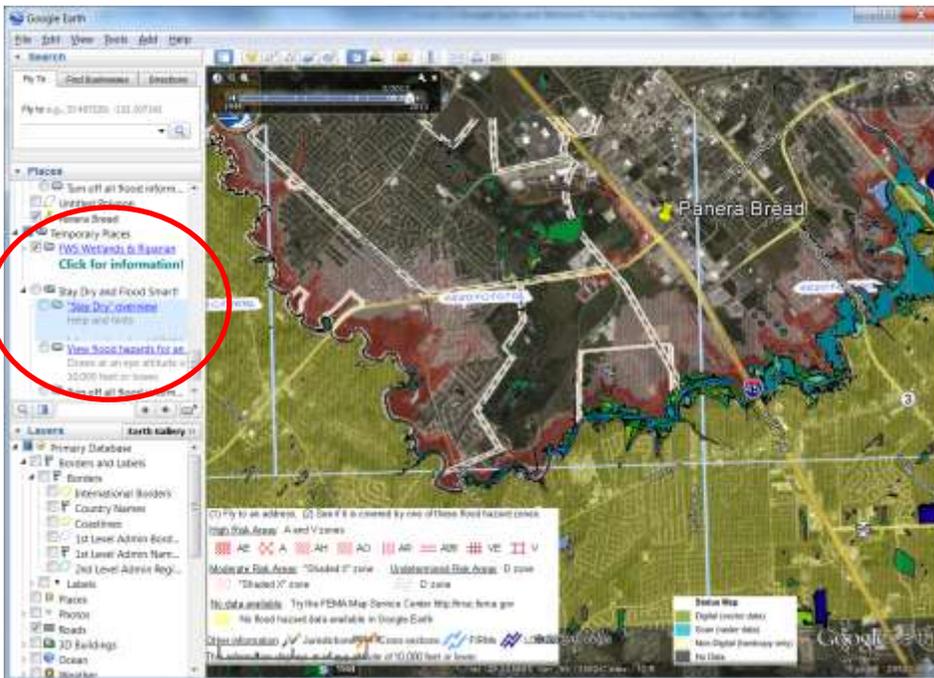
Once on the MSC site click on: **“Use Web Map Service in Google Earth”**



- Click on the “[Stay Dry v2.0.kmz](#)” text under the **Stay Dry** subtitle.



- When you open the file it will automatically open in Google Earth (it takes you to Pittsburg so zoom out and back to Houston). This layer includes floodplains for the whole United States (with some gaps).



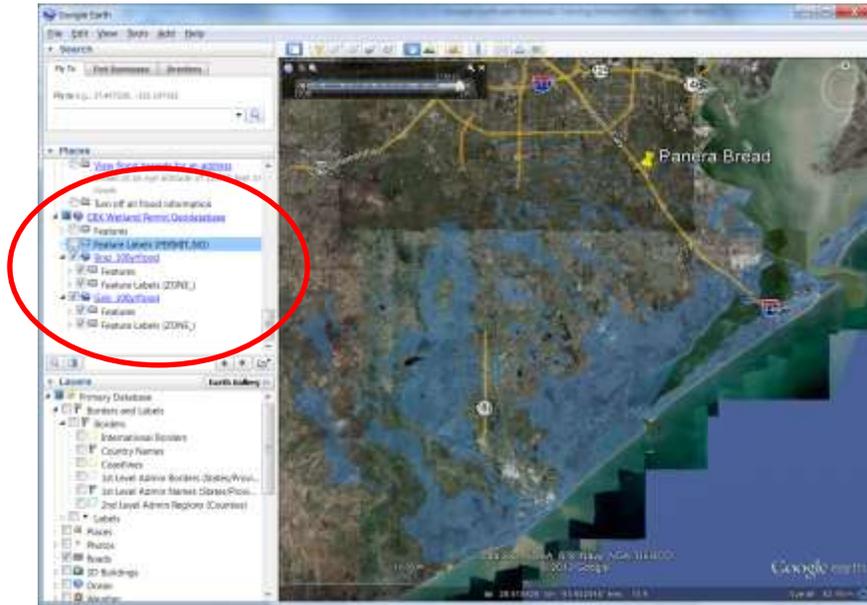
- Again, look at your table of contents. This layer was added to the “Temporary Places”. You must save to “My Places” in order for it to show up the next time you open Google Earth.
- This dataset does not include Galveston County. Below are instructions on how to download Galveston and Brazoria County 100 year floodplains.

C. Download Galveston Baykeeper Wetland Permit Review Database.

1. Go to: www.Galvestonbaykeeper.org
2. Click on the **Wetland Watch** tab at the top
Our web page is currently under construction – so I will email you this layer- It should be up soon.

This will download directly to your Google Earth.

3. Click **OFF** the “Features” and “Feature Label” tabs to view the floodplains by themselves.



This will only show the “Floodplain” layer for Galveston and Brazoria Counties.
The other layer includes the Galveston Bay Foundation’s Wetland Permit Review Dataset. (the numbers that appear on the screen are the USACE Public Notice Permit Numbers).

D. Review HGAC’s Eco Logic Database:

<http://arcgis02.h-gac.com/EcologicalGIS/>

This layer was created as a transportation tool. Notice the Eco Types: “Quality” and “Ranking” layers

