Using ArcGIS.Com for Emergency Flood Management

Dr. Zhumei Qian
What Is ArcGIS.COM?

- Cloud-based platform for making, storing, and sharing maps, applications, and data

- ArcGIS.COM is accessible through:
  - Web Browsers: IE, Chrome, FireFox
  - Mobile Devices: iPad, iPhone, Android Phone, etc
  - Desktop map viewers such as ArcMap
<table>
<thead>
<tr>
<th>ArcGIS</th>
<th>ArcGIS.COM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop or Server Based</td>
<td>Cloud Based</td>
</tr>
<tr>
<td>License Required</td>
<td>No License Needed.</td>
</tr>
<tr>
<td>Installation Required</td>
<td>No Installation, Ready to Use</td>
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<tr>
<td>Rich Set of Functions</td>
<td>Simple Functions</td>
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<tr>
<td>Data Stored on Local or Server Computer</td>
<td>Data Stored in Cloud</td>
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<tr>
<td>Learning Curves</td>
<td>Easy to Use</td>
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</tbody>
</table>
The Mapping Platform for Your Organization

Create interactive maps and apps and share them with the rest of your organization. Realize new opportunities and gain insight into your data. Do this quickly and easily with nothing to install or setup.

30-DAY FREE TRIAL

Reach Your Users
Share your maps and data through blogs, social media, or custom apps.

Go Mobile
Access your maps and information from anywhere, on any device.

Ready-to-use Content
Choose from many beautiful basemaps to kick-start your projects.

HTTP://WWW.ARCGIS.COM
Create and Collaborate on Maps and Apps

ArcGIS Online is a cloud-based, collaborative content management system for maps, apps, data, and other geographic information.

Learn More »
Access a gallery of high quality ready to use data
  - Basemaps: imagery, topographic, and streets
  - Demographic maps
  - Economics maps: U.S. unemployment maps
  - Thousands of other maps and data

Access GIS tools (geoservices)
  - Geocoding
  - Routing
  - Geometric tools
  - Elevation and profile
  - Many more .....
Flood Map Available on ArcGIS.COM

2572 results

**Relevance**  Title  Owner  Rating  Views  Date

**FEMA 100 Year Flood Zones in the U.S.A**
This map service represents Flood Insurance Rate Map (FIRM) data important for floodplain management, mitigation and insurance activities.

- Map Service by Federal_User_Community
- Last Modified: December 5, 2011
- ★★★★★ (1 rating, 3 comments, 95,158 views)

**Best Available Flood Hazard Data**
Best available flood hazard data for Sandy affected counties in NJ and NY

- Web Map by mvalenzuela_FEMA
- Last Modified: June 12, 2013
- ★★★★★ (1 rating, 0 comments, 561,690 views)

**Broward County PRELIMINARY (NOT YET ADOPTED) FEMA Flood Designations**
Directions: Type your address in the box in the upper right side of the map and hit your ENTER key. Once the arrow points to your house, click on your house in the map and the information for the new FEMA flood designations will appear along with the

- Web Map by BCGISFL
- Last Modified: April 24, 2012
- ★★★★★ (0 ratings, 0 comments, 90,555 views)

**DFIRM Flood Map St. Clair County**
This Map is for determining approximate areas for Flood Hazards

- Web Map by bryanprice1
- Last Modified: May 15, 2013
- ★★★★★ (0 ratings, 0 comments, 108,299 views)
Map of flood risk for New Jersey and New York affected by Hurricane Sandy

- Shows changed flood risk as the result of Sandy
- Shows current coastal flood hazard conditions
- Shows Higher elevations that communities should build for future flood
Advisory Map Panels (Revised and Original)
National Flood Hazard Layer (Sandy Area)
Full Extent of Sandy Area
NOAA Aerial Imagery (Sandy 2012)
FEMA National Flood Hazard Map Viewer Application

View areas at risk of floods in the United States and territories. Search by address, state or zip code or use advanced search options such as coordinates and map scales. View data from 2002 and earlier regarding earthquakes, hurricanes and other hazards.
Flood Planning (ArcGIS 10)

Flood Planning is an ArcMap editing map and set of editing workflows and tools for creating and managing flood response plans. It is an editor that can be used by mapping technicians in public safety, emergency management, public works, or planning agencies to analyze the impact of seasonal flooding scenarios and develop flood response plans.

This editing map includes the following:
- A toolbox designed to help you identify the impact of flooding in your community
- A multi-scale ArcMap document designed for editing
- An Add-In that is added to your ArcInfo or ArcEditor installation
- The Local Government geodatabase with sample data from the City of Naperville, Illinois

The Flood Planning toolbox contains a series of python scripts that help you identify the impact of seasonal flooding on public infrastructure, critical facilities and vulnerable populations. For example, there are scripts that:
- Determine a flood impact area by intersecting your administrative boundaries with proposed flood inundation areas
- Identify how the impacted area will affect public infrastructure, critical facilities and vulnerable populations
- Assemble a series of flood impact plans that can be implemented when the specific flood level is determined

In addition to the toolbox, the Flood Planning map also includes an editor extension called the Attribute Assistant. This extension uses a series of pre-defined methods to automatically populate attributes for you when updating and/or adding new features to the geodatabase. For example, one method will populate the proposed cost of the levees you plan to construct in response to a flooding event. Other methods will help you maintain the accuracy of...
Add your own data to the basemaps and save map to your selected folder

- Shapefiles
- Spreadsheet data
- KML file
- OGC WMS services
- GPS files
- Published map services
Add You Own Data to Map

ArcGIS My Map

Make your own map
It's easy to make your own map. Just follow these steps:

1. Choose an area.
Pan and zoom the map to an area or search by its name or address.

2. Decide what to show.
Choose a Basemap then Add layers on top of it.

3. Add more to your map.
Add map notes to draw features on the map.
Display descriptive text, images, and charts for map features in a pop-up.

4. Save and share your map.
Give your map a name and description then share it with other people.

Add Layer from Web

What type of data are you referencing?
An ArcGIS Server Web Service

URL: http://<MyServerName>/ArcGIS/rest/services/<MyServiceName>

Use as Basemap

Add Layer Cancel
What Can You Do on ArcGIS.COM?

- Create Groups and Invite Members
  - Public groups
  - Private groups
- Search Groups
- Join Groups
- Share Maps, Data, or Apps to Groups
<table>
<thead>
<tr>
<th>Show</th>
<th>8 results</th>
<th>More Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Related Searches</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Find items related to "flood insurance" | DC Flood Risk  
Flood Risk Zones, Floodplains, Flood Insurance Rate Map (FIRM), Hurricane Storm Surge Map of Washington, D.C. for public education and outreach  
created by phetimano.phannavong on August 23, 2012 | What types of items can I find here?  
Advanced search options  
Finding layer packages and other ArcGIS desktop content. |
| Find items published by Esri related to "flood insurance" | Prince George's County Maryland Digital Flood Insurance Rate Map (DFIRM)  
Preliminary Digital Flood Insurance Rate Map (DFIRM)  
created by mseyd2 on November 4, 2011 |                                                                                  |
|                      | Insurance  
A group for the Insurance side of Esri(UK)  
created by cmportal on May 18, 2012 |                                                                                  |
|                      | Old Saybrook FEMA  
Maps and data dealing with FEMA flood mapping in Old Saybrook  
created by OSGISAdmin on January 19, 2012 |                                                                                  |
What Can You Do on ArcGIS.COM?

- Customize ArcGIS.COM Home Page
  - Add your logo and banner
  - Choose what content to feature on the home page
  - Set basemap and extent for the map viewer
It is the mission of Mercator Water to provide our customers with a safe drinking water supply, water for fire protection, and an adequate supply of water for our essential daily needs. The goals of Mercator Water include:

- Pursue additional water sources, protect current sources, and manage existing supplies.
- React in a timely, professional manner to all inquiries, problems, and requests from customers.
- Maintain our distribution system, storage reservoirs, fire hydrants, and water meters.
- Protect our water distribution system from intended and accidental contamination.
Summary of ARCGIS.COM

- Cloud based GIS
- Subscription based
- Easy to use
- Immediate access to thousands of maps, apps, and data
- Designed for sharing information within organization or across agencies