

## Notes to the instructor:

This file contains two Emergency Management presentations:

1. *“Stay Dry! Use Google Earth to Assess Flood Risk”* (slides 2 to 7)
2. *“Emergency Management for a Flooded Community”* (slides 9 to 13)

Plan to use slide numbers 2 to 7 and 13 with the MS Word file entitled “FLOOD! Emergency Management Activities.” (filename: flood-emergency-mgmt-activities.doc)

Image credit: *ReBuild Iowa*. University of Iowa sandbaggers before destructive 2008 flood.





**Stay Dry! Use Google Earth  
to Assess Flood Risk**

- Click on KMZ file “Stay Dry” developed by FEMA. Opens to city of Pittsburg, PA
- Read overview of directions
- Fly to Cedar Rapids
- Locate 2 addresses there and ask about flood risk areas
- Fly to county.....questions
- Fly to student address.....question

Search

Fly To Find Businesses Directions

Fly to e.g., 37 25.818' N, 122 05.36' W

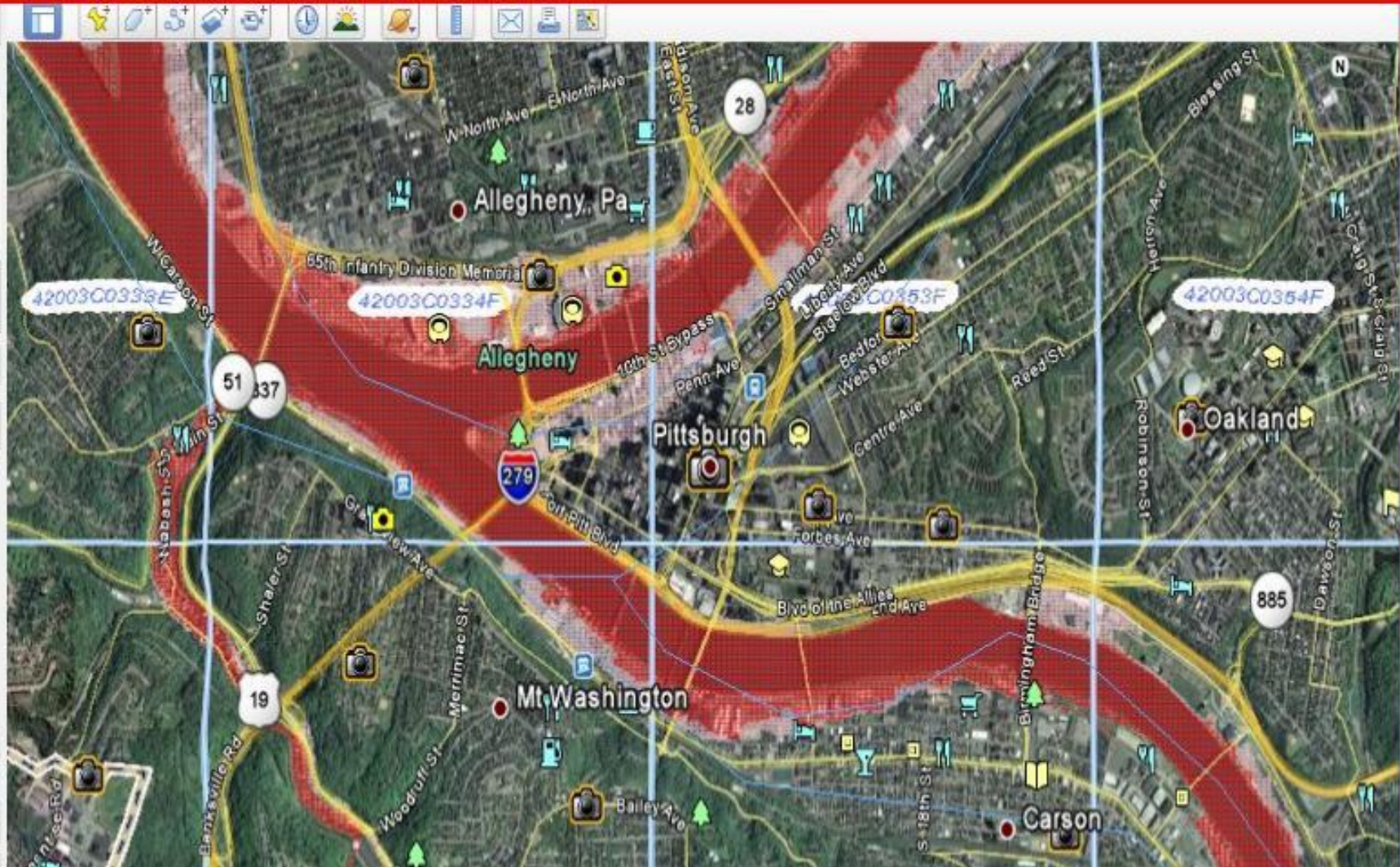
Search input field with magnifying glass icon

Places Add Content

- Turn off all flood informat...
- Temporary Places
- Stay Dry and Flood Smart!
  - "Stay Dry" overview
  - Help and hints
- View flood hazards for an ad
  - Draws at an eye altitude of 10,000 feet or lower.
- Turn off all flood informat...

Layers

- Primary Database
- Borders and Labels
- Places of Interest
- Panoramio Photos
- Roads
- 3D Buildings
- Ocean
- Street View
- Weather
- Gallery
- Global Awareness
- More



(1) Fly to an address. (2) See if it is covered by one of these flood hazard zones.

High Risk Areas: A and V zones

AE
  A
  AH
  AO
  AR
  A99
  VE
  V

Moderate Risk Areas: "Shaded X" zone Undetermined Risk Areas: D zone

"Shaded X" zone
  D zone

No data available: Try the FEMA Map Service Center <http://msc.fema.gov>

No flood hazard data available in Google Earth

Other information:
  Jurisdictions
  Cross sections
  FIRMS
  Image

This information displays at an eye altitude of 10,000 feet or lower.

Search

Fly To Find Businesses Directions

Fly to e.g., 37 25.818° N, 122 05.36° W

228 3rd St SW, Cedar Rapids, IA

- 228 3rd St SW, Cedar Rapids, IA 524
- 427 1st St SE, Cedar Rapids, IA 5240
- Cedar Rapids, IA

Places Add Content

- Oil Spill Animation
- Temporary Places
- Stay Dry and Flood Smart!
- "Stay Dry" overview
- View flood hazards for an ad
- Draws at an eye altitude of 10,000 feet or lower.

Layers

- Primary Database
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- Places of Interest
- Panoramio Photos
- Roads
- 3D Buildings
- Photorealistic
- Gray
- Ocean
- Street View
- Weather



Search

Fly To Find Businesses Directions

Fly to e.g., 37 25.818' N, 122 05.36' W

Louisiana

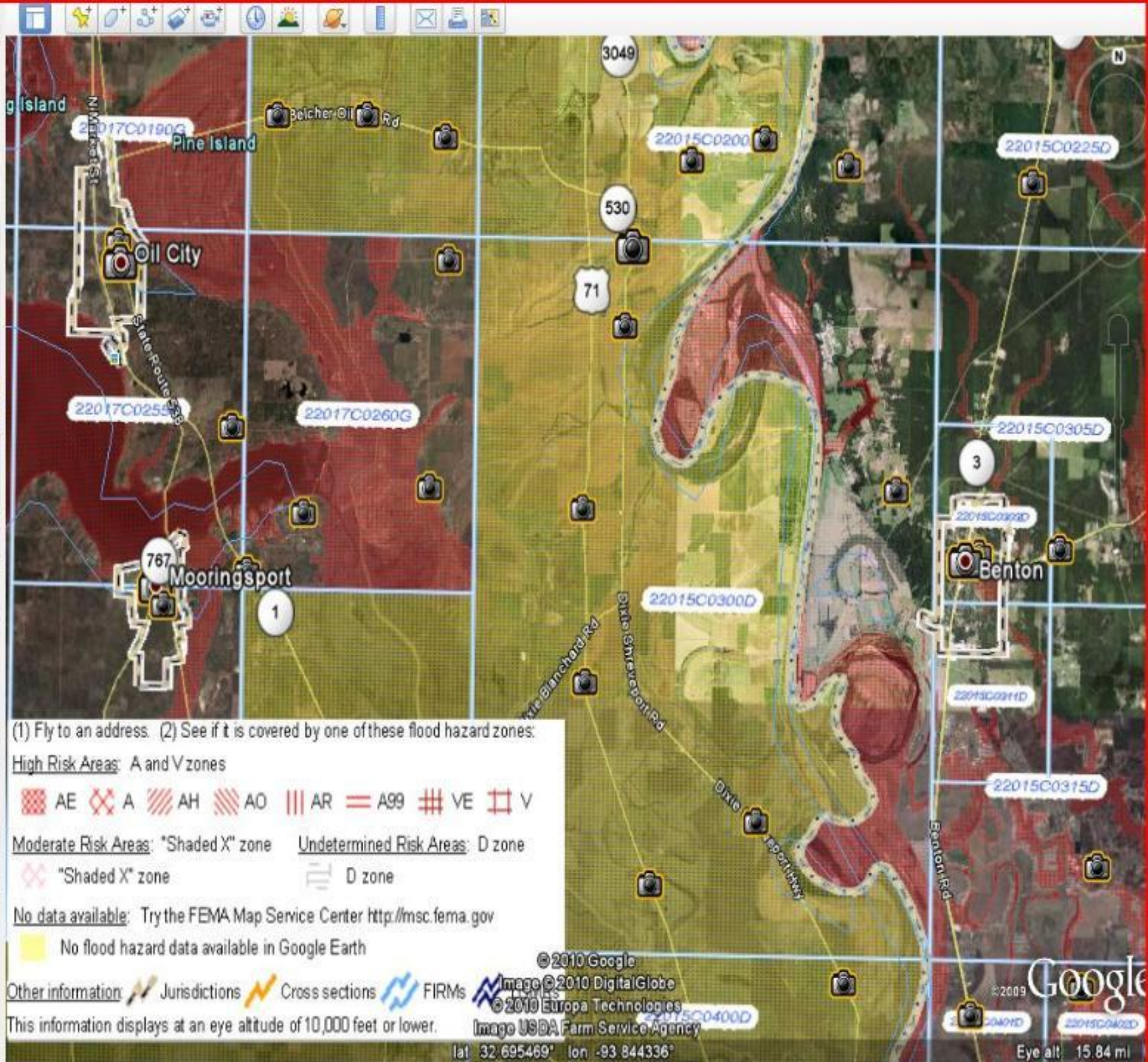
- Louisiana
- La. Shreveport, LA 71107
- Did you mean:
- Hosston, LA
- 201 Airport Dr. Vivian, LA 71082
- Louisiana
- 228 3rd St SW, Cedar Rapids, IA 524
- 427 1st St SE, Cedar Rapids, IA 5240
- Cedar Rapids, IA

Places Add Content

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(1) Fly to an address. (2) See if it is covered by one of these flood hazard zones:

High Risk Areas: A and V zones

AE  
  A  
  AH  
  AO  
  AR  
  A99  
  VE  
  V

Moderate Risk Areas: "Shaded X" zone    Undetermined Risk Areas: D zone

"Shaded X" zone     D zone

No data available: Try the FEMA Map Service Center <http://msc.fema.gov>

No flood hazard data available in Google Earth

Other information:  Jurisdictions    Cross sections    FIRMs

This information displays at an eye altitude of 10,000 feet or lower.

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Image ©2010 DigitalGlobe

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Image USDA Farm Service Agency

lat 32.695469° lon -93.844336°

©2009 Google

Eye alt: 15.84 mi

Search

Fly To Find Businesses Directions

Fly to e.g., 37 25.818' N, 122 05.36' W

7876 BoyScout Louisiana

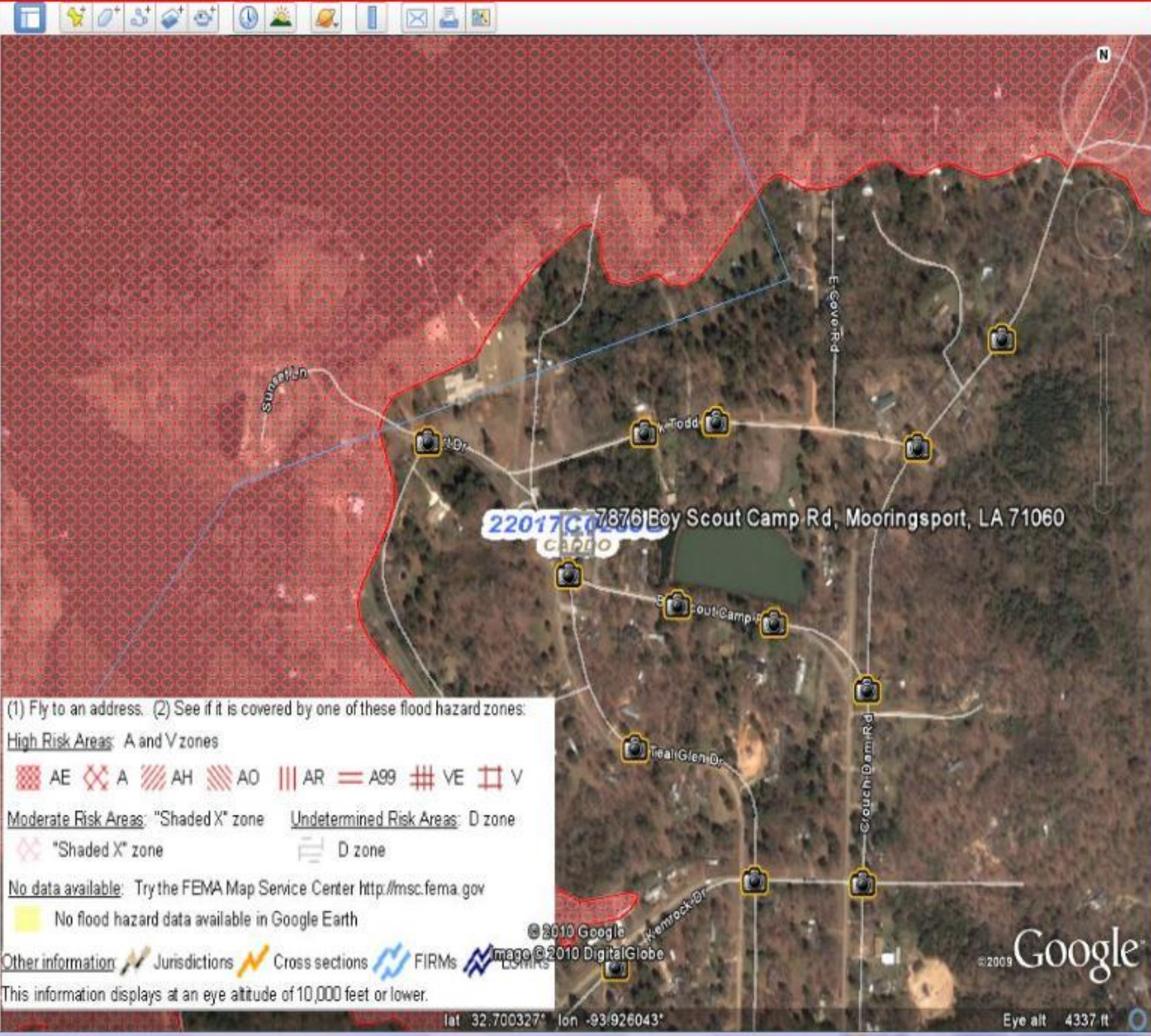
- 7876 Boy Scout Camp Rd, Mooringsport, Louisiana
- La, Shreveport, LA 71107
- Did you mean:
- Hosston, LA
- 201 Airport Dr, Vivian, LA 71082
- Louisiana
- 228 3rd St SW, Cedar Rapids, IA 524
- 427 1st St SE, Cedar Rapids, IA 5240
- Cedar Rapids, IA

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# Emergency Management for a Flooded Community

## Emergency Management has 4 Components:

- Hazard Analysis
- Planning
- Response
- Recovery

This presentation offers resources  
and activities for learning  
about the components.

# Hazard Analysis

Finding your flood risk

## Google Earth Activity

- <http://water.weather.gov/ahps/>
- <https://hazards.fema.gov/wps/portal/mapviewer>

## Resources

- [www.floodsmart.com](http://www.floodsmart.com)
- <http://www.fema.gov/business/guide/index.shtm>
- <http://www.nfwmdfloodmaps.com/handouts/DHSfactSheet.pdf>

# Planning

## Minimizing risk

### Resources

- <http://www.fema.gov/plan/index.shtm>
- [http://www.epa.gov/greenkit/q5\\_disas.htm](http://www.epa.gov/greenkit/q5_disas.htm)
- <http://www.smartcommunities.ncat.org/disaster/disintro.shtml>
- <http://www.fema.gov/business/guide/index.shtm>
- [http://waterwatch.usgs.gov/?state=us&map\\_type=flood&web\\_type=map](http://waterwatch.usgs.gov/?state=us&map_type=flood&web_type=map)
- [www.ready.gov](http://www.ready.gov) with [www.reallyready.org](http://www.reallyready.org)
- [http://www.nhc.noaa.gov/HAW2/english/disaster\\_prevention.shtml](http://www.nhc.noaa.gov/HAW2/english/disaster_prevention.shtml)
- <http://www.fema.gov/plan/index.shtm>

### Activities

Obtain your area's flood plan (or develop one). An example is

- [http://www.cityofdavenportiowa.com/egov/docs/1206019646\\_714752.pdf](http://www.cityofdavenportiowa.com/egov/docs/1206019646_714752.pdf)

# Response

## When the water hits the road

### Resources

- <http://www.epa.gov/naturaldisasters/flooding.html>
- <http://www.fema.gov/hazard/midwestfloods.shtm>
- <http://www.cdc.gov/niosh/topics/emres/flood.html>
- <http://www.osha.gov/SLTC/emergencypreparedness/guides/floods.html>

### Activity

Interview local emergency response coordinator.

Select a house (or for a group, select a building) for “sandbag math”

- <http://www.ag.ndsu.edu/pubs/ageng/safety/ae626w.htm> After reading and thinking, then students design and share a variety of math problems related to sandbagging the selected structures. How many different kinds of problems can they suggest?

# Recovery

## Things to Consider

### Resources

- <http://www.fema.gov/rebuild/recover/return.shtm>
- [http://www.fema.gov/hazard/flood/fl\\_after.shtm](http://www.fema.gov/hazard/flood/fl_after.shtm)
- <http://www.epa.gov/mold/moldguide.html>
- <http://www.bt.cdc.gov/disasters/mold/protect.asp>
- <http://www.fema.gov/assistance/index.shtm>
- <http://www.archives.gov/preservation/disaster-response/guidelines.html>

### Activities

Town Hall Meeting: For student and instructor process, open this word file:

- flood-emergency3\_recovery-townhallmtg\_teacherproj.doc