

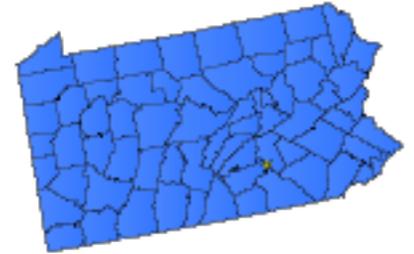


3RiversHUG - CUP Students Begin a New Chapter in HAZUS History

Full Mitigation Best Practice Story

State-wide, Pennsylvania

The State of Pennsylvania - In March 2006, the 3Rivers HAZUS User Group (3RiversHUG) made history—by voting to initiate a student chapter of the HAZUS user group at the California University of Pennsylvania. Interested students from the Department of Earth Science, particularly undergraduates majoring in Geography, with a concentration in Geographic Information Science and emergency management, eagerly accepted the invitation and established the first-ever student chapter of a HAZUS User Group.



The inception of the student chapter of the 3RiversHUG marked the beginning of a true “win-win” situation. First, students are gaining valuable real-world experience that augments their education through class projects, field assignments, service-learning activities, and internships. At the same time, various entities—including local emergency management offices, HAZUS users, GIS users, regional planning agencies, and county and municipal governments—are getting their projects completed more quickly and efficiently by leveraging the energy and efforts of the student chapter.

Even the university itself is benefiting from the formation of the student chapter, as the California University of Pennsylvania (the main campus is located in southwestern Pennsylvania in the Borough of California, about an hour’s drive south of Pittsburgh) realizes strengthened ties and improved public relations with its community.

One early example of a successful group project was completed during the spring semester of 2006, as part of Dr. Tom Mueller’s Advanced GIS course. One of the groups worked with Washington County 911 Coordinator, Chris Barton, a member of 3RiversHUG, to update the school’s database for Washington County, Penn.

Students added information about private schools to the default database and updated public school attributes. They also contacted local school superintendents, principals, and facility managers in order to research attribute data on a variety of factors, including number of floors, kitchen facilities, shelter capacity, and whether the facility was equipped with back-up power sources or generators. The students then returned this data to the county so its databases could be updated and incorporated into a potential future Level 2 HAZUS flood analysis.

In addition to these other activities, students also determined that the location data was inaccurate, and Global Positioning Systems (GPS) units were then used to create more accurate location data for the school’s database and other databases through internships conducted during the following semester.

During the summer of 2006, another student was given the opportunity to intern at the Washington County Department of Public Safety in order to assist with a Hazardous Materials Commodity Flow Study. This report detailed the moving of hazardous materials via the county’s many modes of transportation.

Major transportation companies and government agencies were contacted and asked to provide lists of products being shipped through the county, and in-situ observations were recorded. The GIS aspect of this internship included updating railway and highway maps while creating a mobile-home park map, and a map identifying the location of hazardous materials (HAZMAT) incidents that had occurred within the county during the preceding five years.

During this internship, a database was developed that displayed all of the SARA reporting facilities within the county linked to a database indicating all the contact and response information about those facilities. The intern also compiled a searchable fire-resources database that showed the locations of all fire-service assets within the county.

The relationships developed through the 3RiversHUG are proving productive for linking local organizations that need assistance with qualified students seeking practical experience. The resulting projects, service-learning activities, and internships are providing real advances—especially in the areas of GPS data creation, GIS analysis, and database-updating and management—that will help create better flood-model results from Level 2 HAZUS runs. These improvements will extend

to subjects beyond flooding, including emergency preparedness, mitigation decision-making, and general planning.

Activity/Project Location

Geographical Area: **State-wide**
FEMA Region: **Region III**
State: **Pennsylvania**

Key Activity/Project Information

Sector: **Public**
Hazard Type: **Flooding**
Activity/Project Type: **HAZUS-MH**
Activity/Project Start Date: **03/2006**
Activity/Project End Date: **Ongoing**
Funding Source: **Academic**

Activity/Project Economic Analysis

Cost: **Amount Not Available**

Activity/Project Disaster Information

Mitigation Resulted From Federal
Disaster? **Unknown**
Value Tested By Disaster? **Unknown**
Repetitive Loss Property? **Unknown**

Reference URLs

Reference URL 1: <http://www.hazus.org>
Reference URL 2: <http://www.fema.gov/plan/prevent/hazus/index.shtm>

Main Points

- HAZUS group started at the California University of PA in March 2006.
- Students added information about private schools to the default database and updated public school attributes.
- Data returned to the county so its databases could be updated and incorporated into a potential future Level 2 HAZUS flood analysis.
- Students also determined that the location data was inaccurate, and Global Positioning Systems (GPS) units were then used to create more accurate location data for the school's database and other databases.
- During the summer of 2006, another student was given the opportunity to intern at the Washington County Department of Public Safety in order to assist with a Hazardous Materials Commodity Flow Study.



Example of a program used by 3RiversHUG.