



Terry Jackson, CFM

*Director, Office of Decision Support Systems
Georgia Department of Community Affairs*

Kevin Mickey, GISP, CTT+

*Director, Geospatial Technologies Education
The Polis Center- Indiana University Purdue
University Indianapolis*

GEORGIA HAZUS PROJECT – A MODEL FOR SUCCESS THROUGH COLLABORATION

Agenda

- ④ Project history
- ④ Review of project design
- ④ Lessons learned

PROJECT HISTORY

Background

● HUD CDBG DREF *Forward Thinking Land Use*

● Objectives

- Assist local governments in preparing for future disaster mitigation and resilience.
- Increase disaster mitigation education and awareness.
- Enhance consistency amongst various required planning documents, to foster complementary comprehensive plans and hazard mitigation plans.

Disaster Recovery Enhancement Fund

Qualifying activities were limited to:

A. Development and adoption of a ***forward-thinking land-use plan*** that will guide use of long-term recovery efforts and subsequent land-use decisions throughout the community and that reduces existing or future development in disaster-risk areas; and/or

Results: <http://www.dca.ga.gov/development/PlanningQualityGrowth/programs/dref.asp>

B. Floodplain or critical fire or seismic hazard area buyouts programs under an optional relocation plan that includes incentives so that families and private sector employers move out of areas at severe risk for a future disaster; and/or

C. Individual mitigation measures (IMM) to improve residential properties and make them less prone to damage. If such activities are incorporated into the grantee's rehabilitation or new construction programs generally, the cost increment attributed to IMM will be the amount considered for the additional allocation, not the total construction amount budget; and/or

D. Implementation of ***modern disaster resistant building codes***, including, but not limited to, training on new standards and code enforcement.

Results: <http://www.dca.ga.gov/development/constructioncodes/programs/DRBCWorkshop.asp>

Project partners



Project partners: FEMA

- FEMA HAZUS Program: Eric Berman
- FEMA EMI: Phillip Moore
- FEMA Region IV- Mitigation Division-Risk Analysis Branch- HAZUS Analysis Team

Gene Longenecker

Samuel Moses Wilkins

Niclaos Almonor

Casey Zuzak

Project partners: POLIS

- ⦿ Kevin Mickey
- ⦿ Shane Hubbard (University of Iowa)
- ⦿ Dave Coats
- ⦿ John Buechler
- ⦿ Jack Schmitz
- ⦿ Alan Lulloff (ASFPM)

PROJECT DESIGN

Project design

- Hazus course series
- Development of tools and workflow that supported efficient development of quality risk assessments
- Pilot project

Training

- 7 classes were held over a period of a year
- 3 locations connected via Adobe Connect / Skype - 12 to 40 participants
- All classes were based on FEMA authorized curriculum but supplemented with examples unique to Georgia
- All classes allowed for ample opportunity for strategic discussion and planning
- Participants received HAZUS certificates plus Professional / Practitioner status

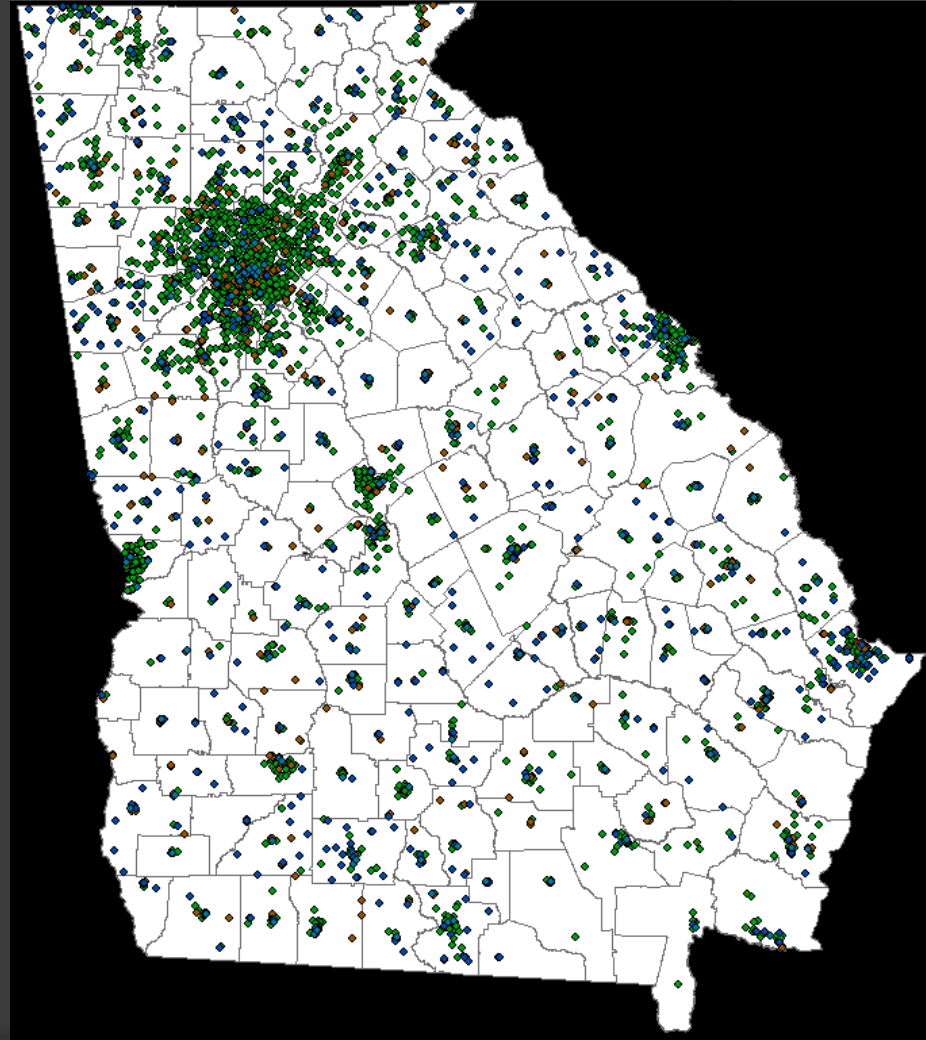
Training

- ArcGIS for Emergency Managers
- Basic Hazus-MH
- Hazus-MH for Flood
- Hazus-MH for Hurricanes
- Using Hazus for Risk Assessment
- Comprehensive Data Management for Hazus
- Using Hazus for Floodplain Management



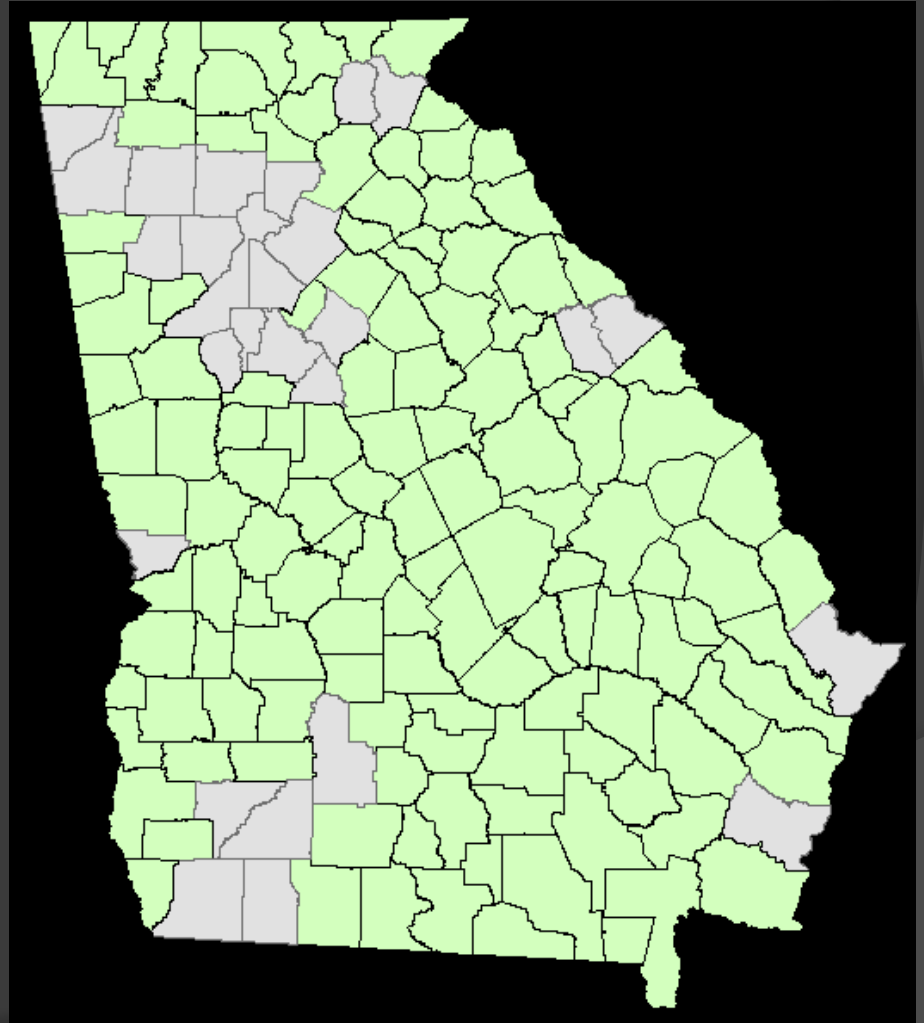
Inventory

- Update Essential Facilities (GMIS)
- Update Demographic Data (Census 2010 SF-1)
- Tools and workflow for maintenance



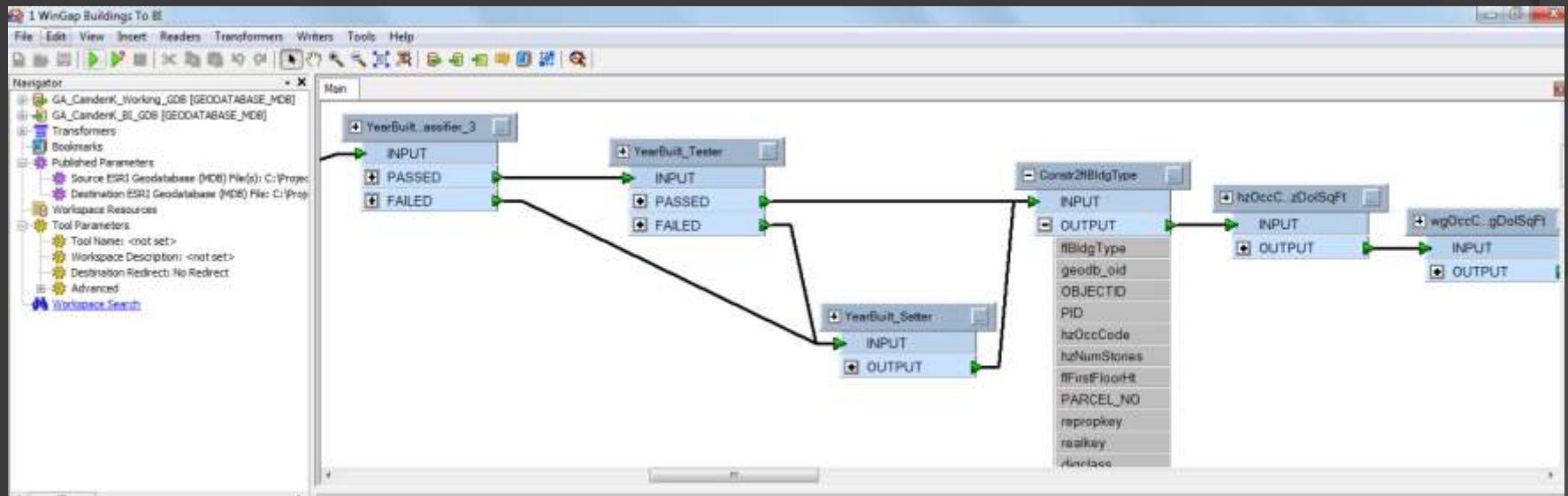
Tools and Workflow

- WinGAP Counties



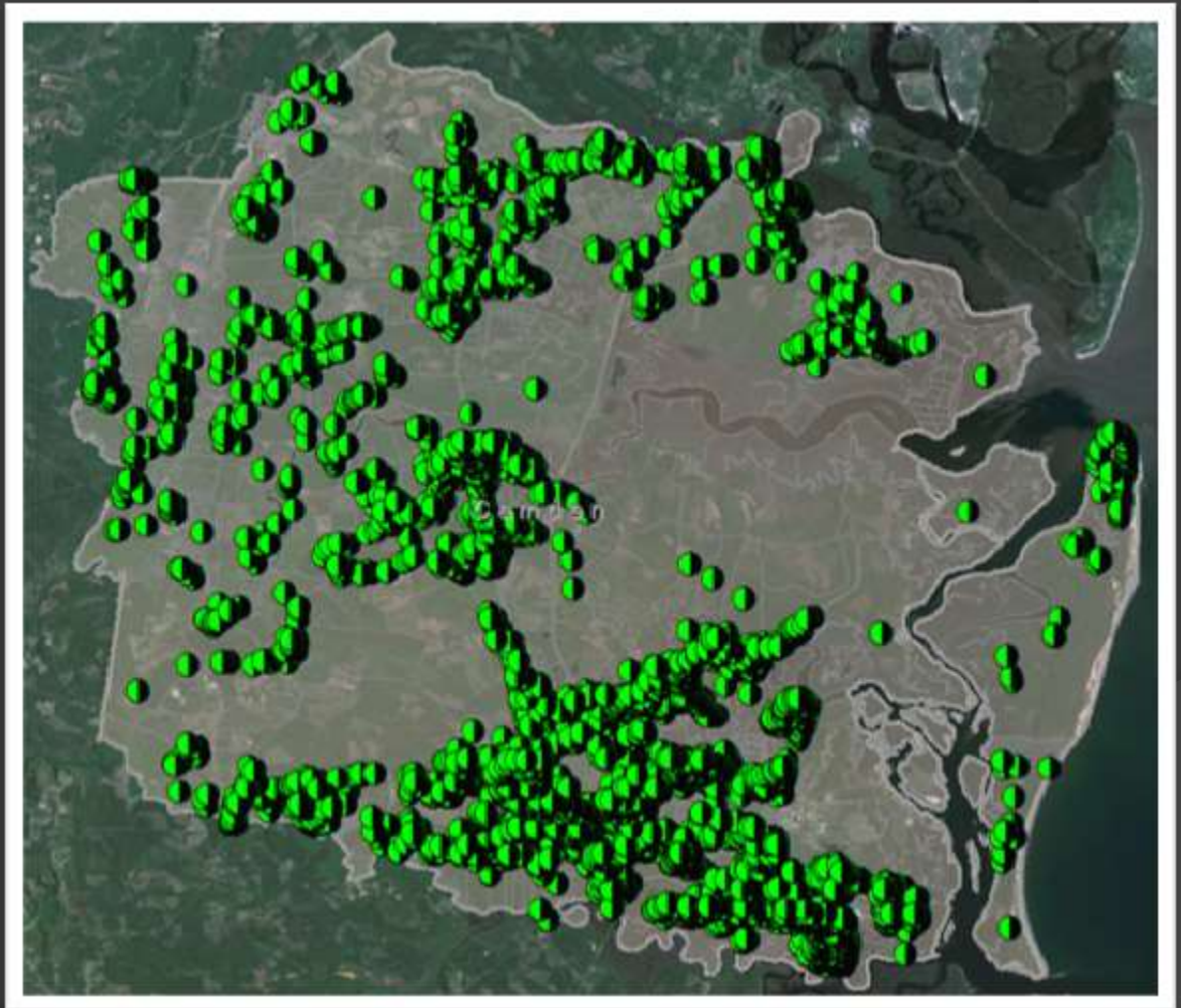
Tools and Workflow

- Tools created for transforming local assessor/parcel data to a Hazus compliant format



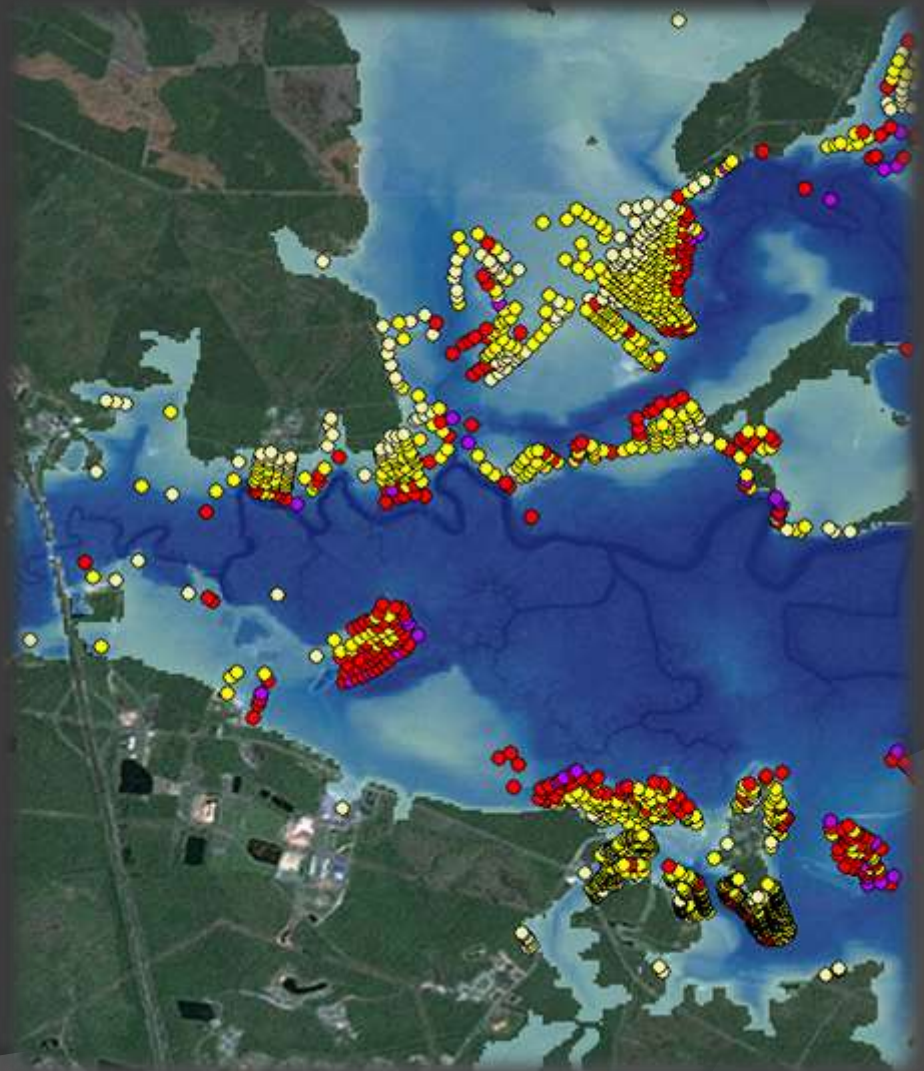
Tools and workflow

- Local data quality allowed for creation of user defined facilities



Tools and workflow

- Detailed structure level analysis was included for flood hazards
- Aggregate analysis for wind hazards



Workflow

● Project created a complete workflow

- Processing of local inventory
- Integration of local hazard data
- Analysis of hazards
- Creation of risk assessment maps, tables and reports

TASK 1.5.4 - CREATE BUILDING INVENTORY FROM BUILDINGS

An FME script named 1 WinGap Buildings to BI has been developed for the purpose of migrating the acBuildings, coBuildings, reBuildings, and moBuildings feature classes to Building Inventory

The Buildings are processed to create BI that fits the Hazus database structure and domains. The resulting dataset represents the Building Inventory in a county derived from the county parcel feature class joined to the county assessor's improvement records. The scripts are setup for Camden County, but may need to be modified for other counties. It may also be necessary to modify the tools to accommodate differences between the data sources. Therefore, modify the name of the toolbox to signify the name of the county that the tools are run against.

- Add the GA_<County_Name>_FME_BI.tbx toolbox to ArcTools from:
C:\Projects\Hazus_Projects\PDM_Georgia\Data_Management\
Models\County\<County_Name>\Tools\
GA_<County_Name>_FME_BI.tbx
- Right-click on the <County_Name>_FME_BI toolbox and select **Properties**. Change the tool Label to <County_Name>FME BI.



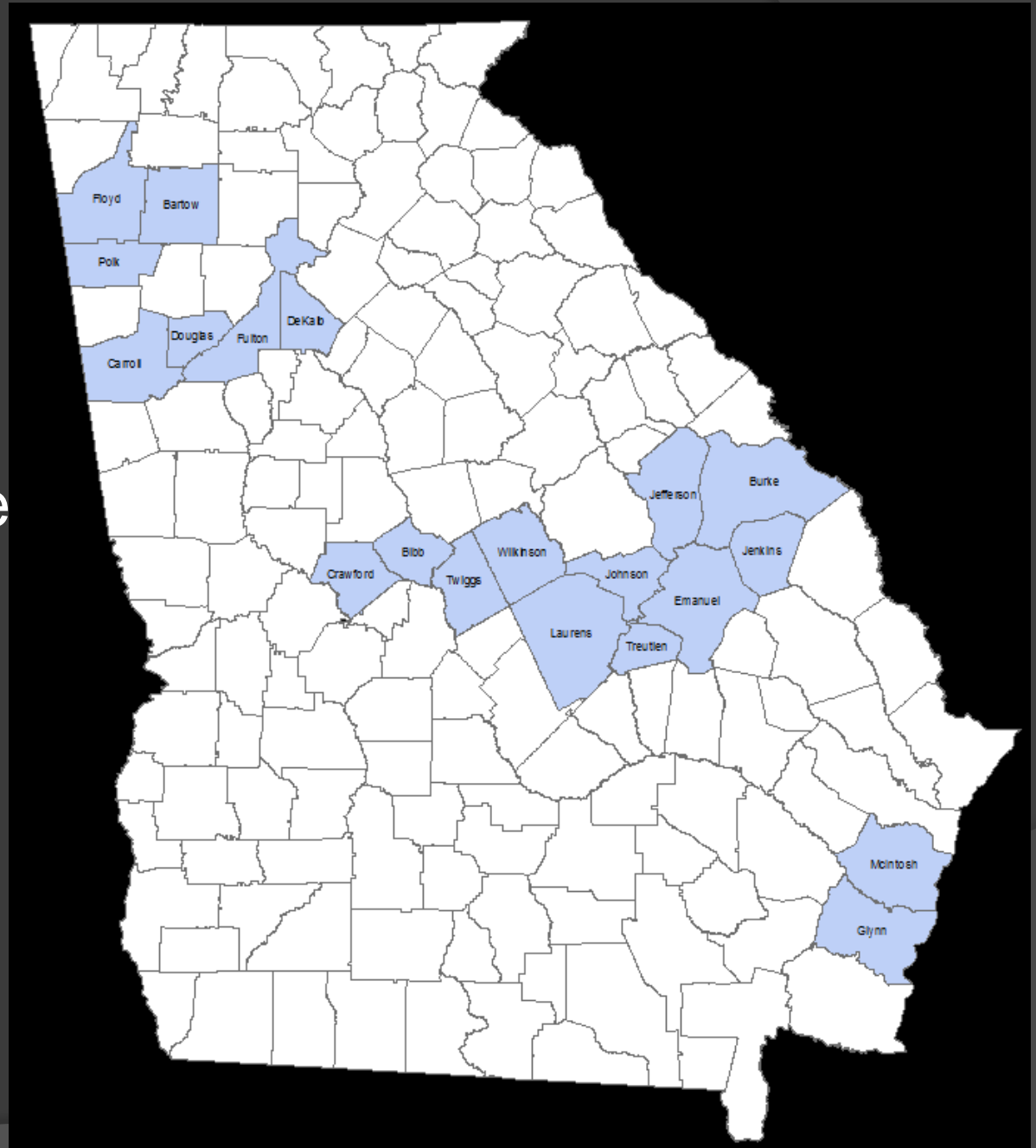
Pilot project

- Four counties were selected for the pilot



DREF

- 20 counties limited study
- 1-percent annual chance flood analysis using NFHL and EQL
- Probabilistic hurricane analysis

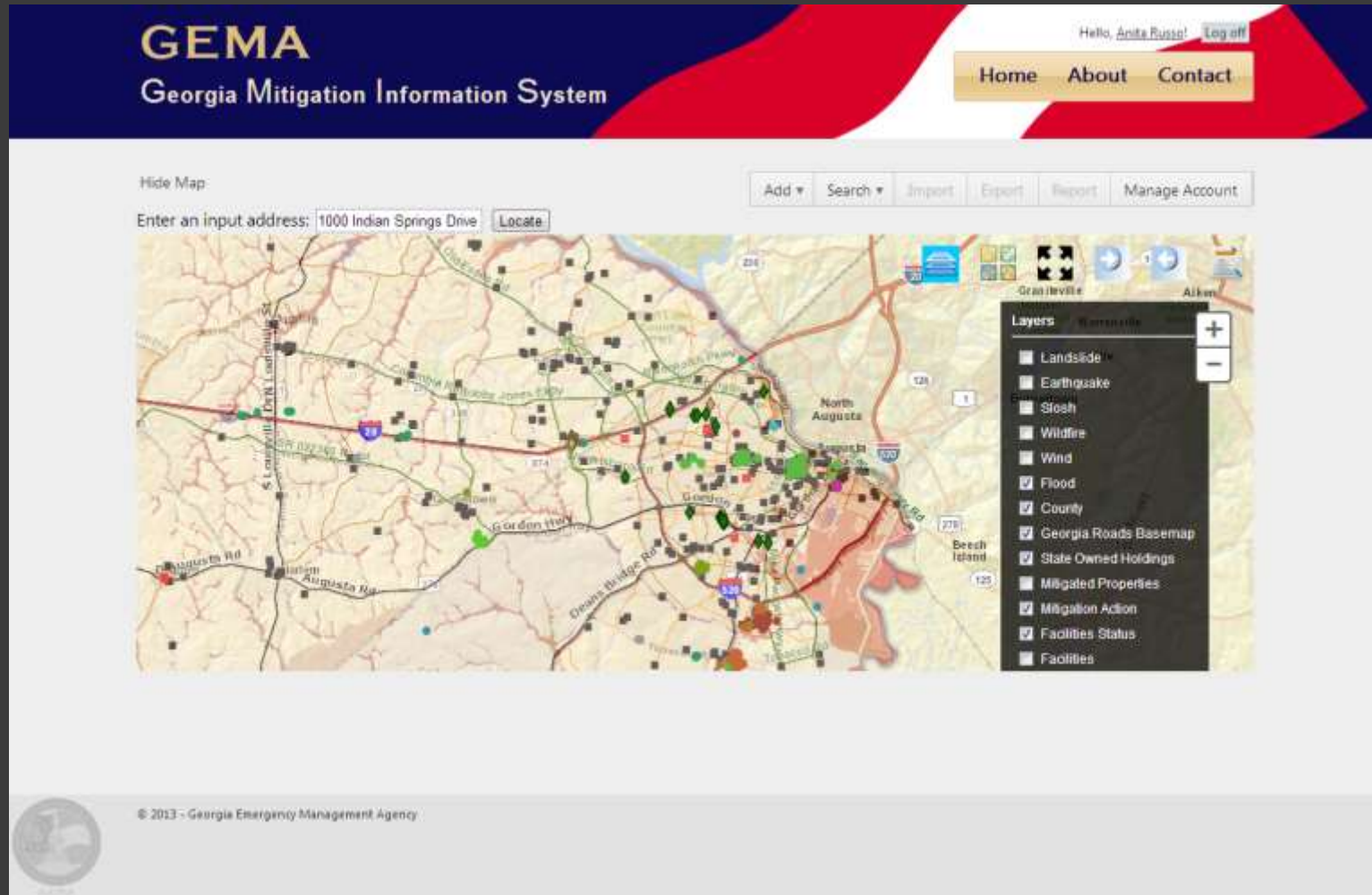


LESSONS LEARNED

Lessons learned

- ⦿ Training is critical to successful rapid implementation
- ⦿ Creation of a designated core of local experts
- ⦿ Integration of training with a pilot project
- ⦿ Building collaboration – most valuable element of this project

Collaboration with GEMA: GMIS



GMIS information and tools for hazard mitigation planners; source for HAZUS Essential Facility update.

Collaboration with GEMA: GMIS

Hide pane

Hello, Anita Russo! Log off

Home About Contact

Information System

New Facility

Is this a Critical Facility?
Critical

Details

Facility Type(s)
Education: ALF

Get Location from Map

Latitude
33.280717

Longitude
-85.103823

Address1

Address2

Fort Benning South

Heard

Region 1

Zip

PlusFour

Name

Submit

Drive Locate

Add Search Import Export Report Manage Account

Mitigated Property

Critical Facility

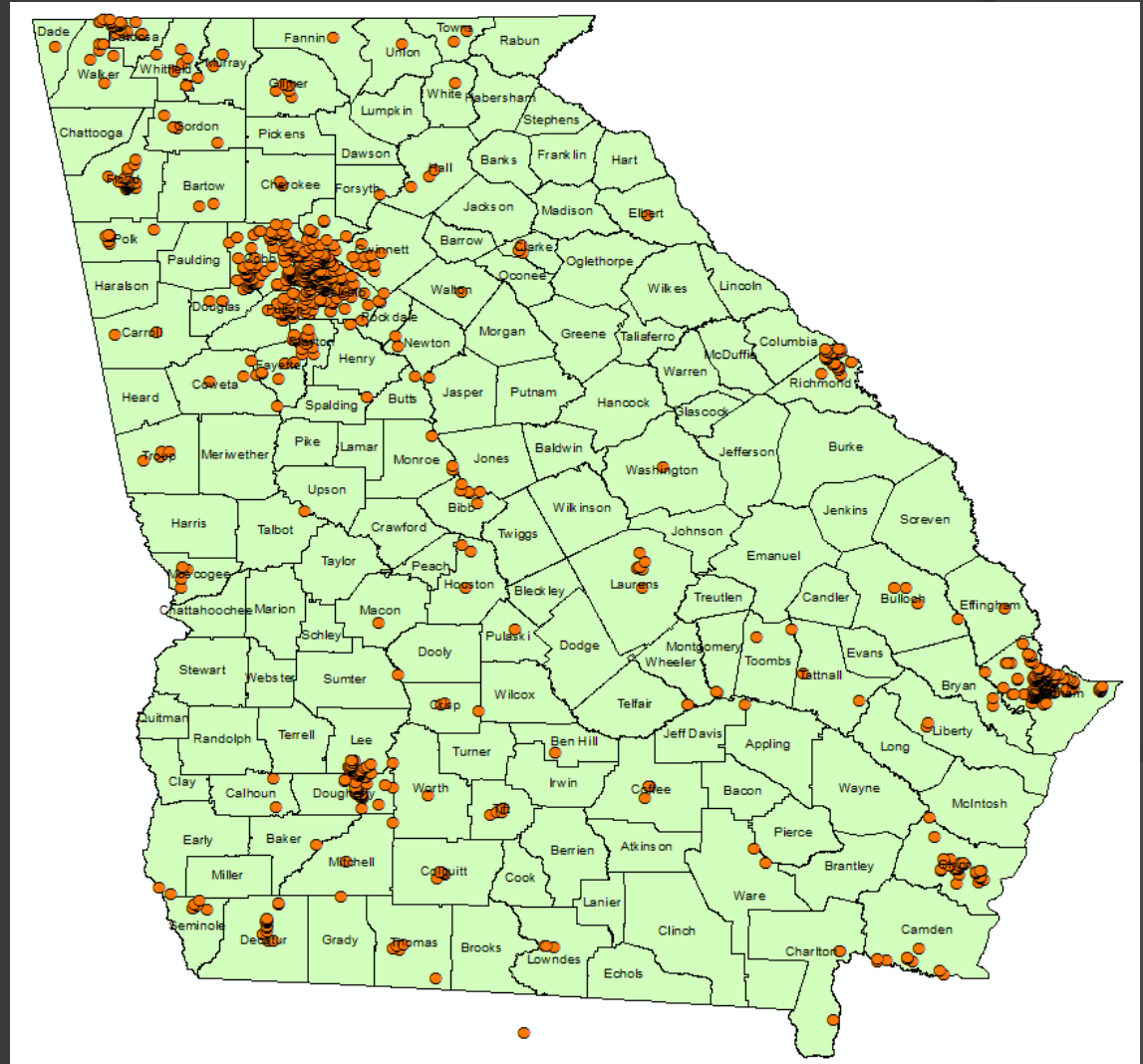
Layers

- ☐ Landslide
- ☐ Earthquake
- ☐ SLOSH
- ☐ Wildfire
- ☐ Wind
- ☐ Flood
- ☐ County
- ☒ Georgia Roads Basemap
- ☐ State Owned Holdings
- ☒ Mitigated Properties
- ☐ Mitigation Action
- ☒ Facilities Status
- ☒ Facilities

Workflows for GMIS and HAZUS Essential Facility update / EF Export
RC annual update of Essential Facilities in GMIS .

Collaboration with FEMA

- Repetitive Loss
- Geocoded 1,621 repetitive loss properties into 1,898 census blocks



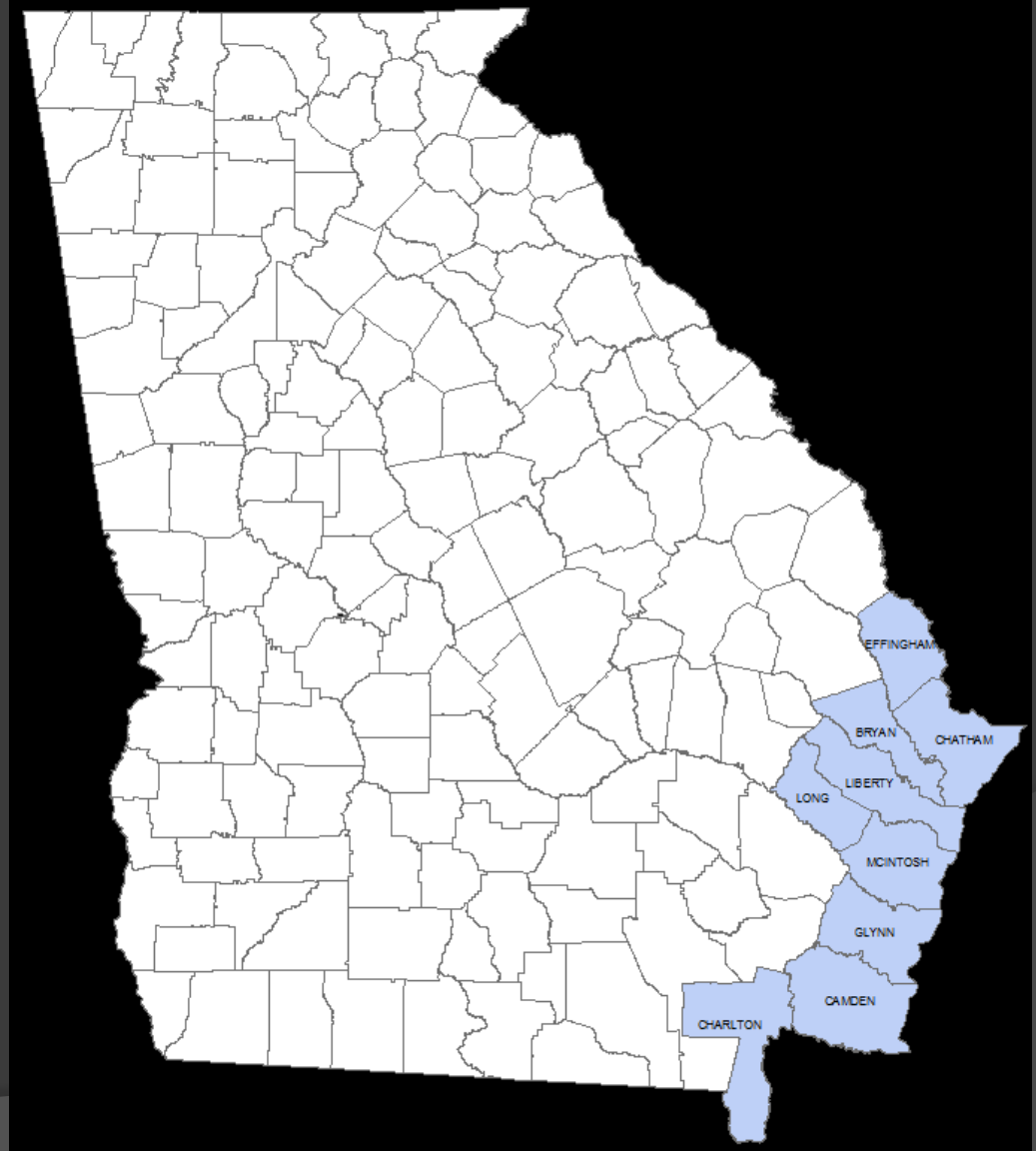
Collaboration with FEMA



Repetitive Loss Block Map to better coordinate between community planners, hazard mitigation planners, and floodplain managers.

Collaboration with FEMA CTPs

- RISK MAP studies
- Updated Essential Facilities and Demographics statewide
- Coastal county UDFs



Additional information

Terry Jackson Terry.Jackson@dca.ga.gov

Kevin Mickey kmickey@iupui.edu