

Georgia Mitigation Information System (GMIS)

User Guide

GMIS is an on-line mapping tool developed by the Information Technology Outreach Services (ITOS) a Division of the Carl Vinson Institute of Government at the University of Georgia and the Hazard Mitigation Division of GEMA. GMIS supports the documentation and implementation of mitigation activities through the State of Georgia through mapping and reporting of Critical Facilities, Mitigated Properties, and National Flood Insurance Program (NFIP) Properties. Currently, critical facilities information is available for querying, information gathering, and reporting.

To meet the Disaster Mitigation Act of 2000 (DMA2K) planning requirements, local governments need to collect detailed structure and building information. This system will enable you to enter information about your community facilities, including coordinates, replacement value, etc. These facilities can then be reported by the hazard zones they fall within. For example, a report is created at the click of a button that shows all facilities that fall within the 100 year floodplain. These reports, along with custom hazard maps, can be imported directly into your mitigation plan to replace “Form #3b: Inventory Assets” from the FEMA How-To Guide #2, page 3-3.

Inputting Critical Facilities/Buildings data into GMIS:

1. You must obtain a password and login from a GEMA Hazard Mitigation planner or request a password and login from the main page:
www.itos.uga.edu/gema/Login.do
2. If this will be your first time logging into the system, or you are on a computer that has never logged into the system, you must install MapGuide server onto your computer. To do this, please see the directions in the bottom right corner of the main page. Click “Run” when the file download window opens, this will automatically start the download process.
3. Login to the system with your provided email and password. Don’t forget to check the disclaimer box.
4. Once you have logged in, you should see a map on the right, a set of tools above the map, a layer bar to the left of the map and to the far left a find window.
NOTE: While in GMIS do not use the internet browser back button. To get back to a map always click *Find*.
5. Typically, you will only see your county’s critical facility information. If you have a need to see other county data or the entire state, contact your HazMit Planner.
6. To add a facility, click *Add*, next to *Find*, in the top bar underneath GMIS.
7. Once you have clicked *Add*, you can either choose *Text Entry* if you already know the GPS coordinates or *Map Entry* if you don’t have the coordinates but can

locate the point on the map where the facility is located accurately. (*GPS Coordinates Format – Coordinates will need to be in decimal degrees to be entered into the online tool*) For accuracy reasons, it is recommended that you obtain the GPS coordinates and enter them manually using the *Text Entry* method. You must then enter the name and the facility type. Then, you can either choose *Quick Add* to get the critical facility/building on the map or *Continue to Detail* to finish providing data for the critical facility/building. If you choose *Quick Add*, the critical facility/building will be shown in red signifying incomplete data. Further information for the critical facility/building can be added at a later time. When you want to add the extra data to the critical facility/building, locate the building by using the *Find* tool to the left of the map window or by searching the map. The *Find* tool will automatically select your facility. If you locate the facility by searching the map, click on it. Using either method, a box will appear on the left hand side of the screen with the facility name and address. On the right hand side of that box, there will be an edit tool (pad of paper and pencil icon). Click on the icon. Make your edits and click *Save* at the bottom.

8. The following information is required on all facilities:

- a. Facility Name
- b. Longitude
- c. Latitude
- d. Location Method
- e. Jurisdiction
- f. Area Sq Ft
- g. Building Value
- h. Valuation Year
- i. Building Valuation Type
- j. Critical Facility Type or Community Element Type
- k. Occupancy Code
- l. Other Details (explained below)

When entering your facility data into GMIS, if the facility is a college or university owned facility, be sure to include in **Mark any or all that apply – Other Details** the *University/College name* in the format listed below. This will allow you along with the University/College and GEMA to be able to quickly search for all critical facilities belonging to each University/College.

Georgia Tech
 GSU
 MCG
 UGA
 Georgia Southern
 Valdosta State
 Albany State
 Armstrong Atlantic
 Augusta State
 Clayton College
 Columbus State
 Fort Valley
 Georgia College

Georgia Southwestern
 Kennesaw
 North Georgia
 Savannah State
 Southern Poly
 West Georgia
 Darton
 Macon
 Georgia Gwinnett
 Abraham Baldwin
 Atlanta Metropolitan
 Bainbridge College
 Coastal Georgia

Dalton
East Georgia
Floyd
Gainesville
Georgia Perimeter

Gordon
Middle Georgia
South Georgia
Waycross

9. Once the minimum required fields are entered into GMIS for the respective facility/building, the square will be changed from a red shade (not all minimum requirements for facility/building are entered) to a black shade (all minimum requirements for the facility/building are entered).
10. Please feel free to include other information as needed.

Including the inventory in your plan:

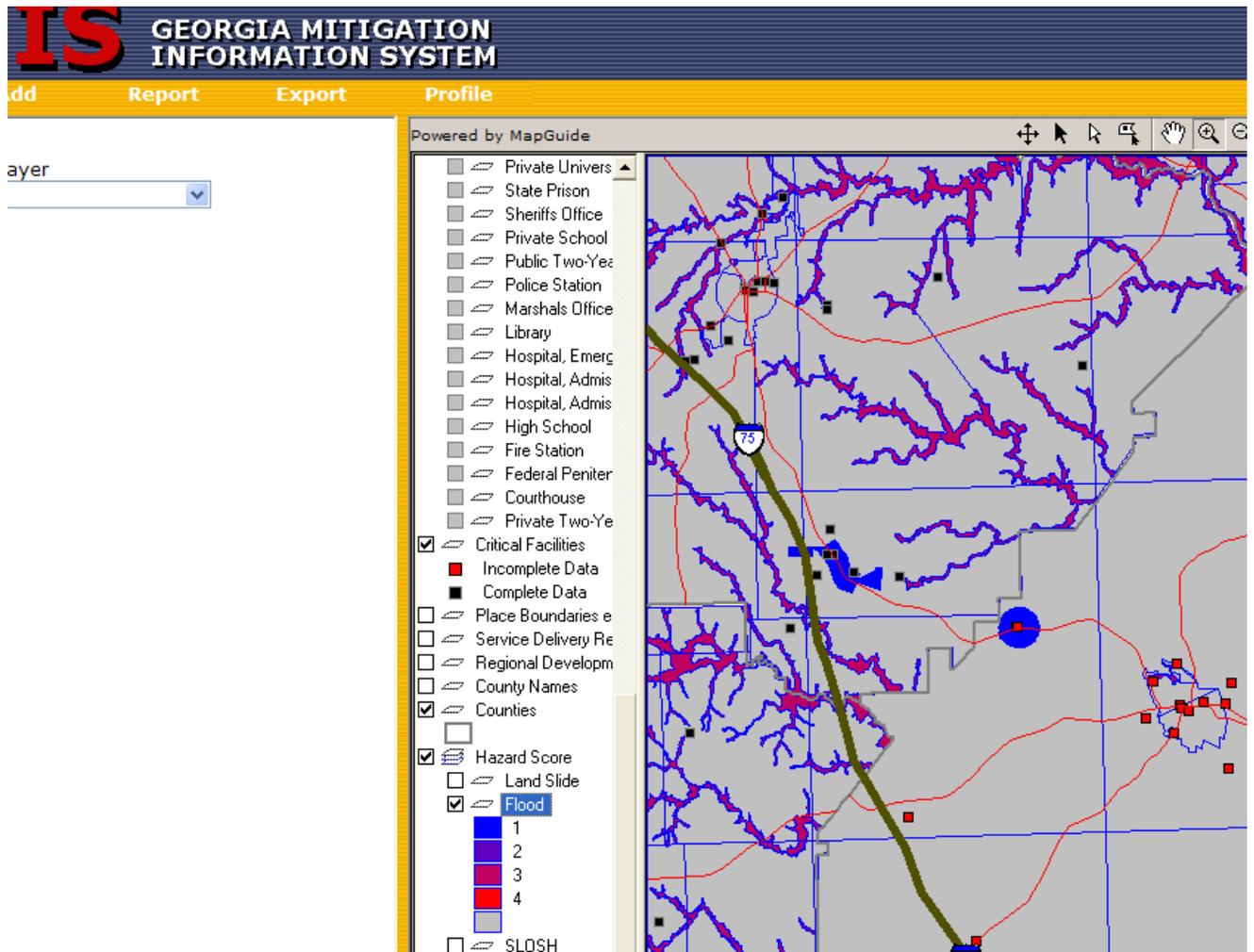
As part of the planning process, you will be required to include the critical facilities inventory in your plan document. This is a two part process. One part is to include a copy of the maps created on the GMIS system. The second part is to include a critical facilities report, also created on the GMIS system.

Maps:

Follow the steps below in order to create maps:

1. Log into the system. It should automatically zoom into your county. If it does not, or if you need to zoom in closer or out farther, click on the zoom in and zoom out buttons in the grey area above the map. Then use your mouse to zoom in or zoom out to get the view that you need for your map.
2. To the left of the map, there is a bulleted list of items with check boxes next to them. Be sure to uncheck the "Avoided Losses," "National Flood Insurance," and "Mitigated Properties" items as these are not needed for this part of the planning process. This is done by clicking in the boxes and making sure the check mark disappears.
3. Scroll down in the list until you find "Hazard Score." Under it you will find "Landslide," "Flood," "SLOSH," "Seismic," "Wildfire," and "Wind." Each of these will have individual checkboxes next to them. Click on the box next to the hazard that you are looking to map. For example, if you are looking to map flood plains, place a check mark in the box next to "Flood." Flood plains should now show up on the map. See the graphic on the page below.
4. Once you have your map created, right click anywhere inside the map and a menu will appear. Click on "copy map" in that menu. Then simply go to your plan document, place your mouse where you want the map to be, right click and a menu will appear. Select paste and your map should appear, the way that you created it online, in your plan document.
5. Depending on the hazard, you may need to create individual maps for the municipalities and, if one exists, universities that participated in your planning

process. To do this, simply zoom into the area that you want to focus the map on and follow the same process above for creating, copying and pasting the map.



Reports:

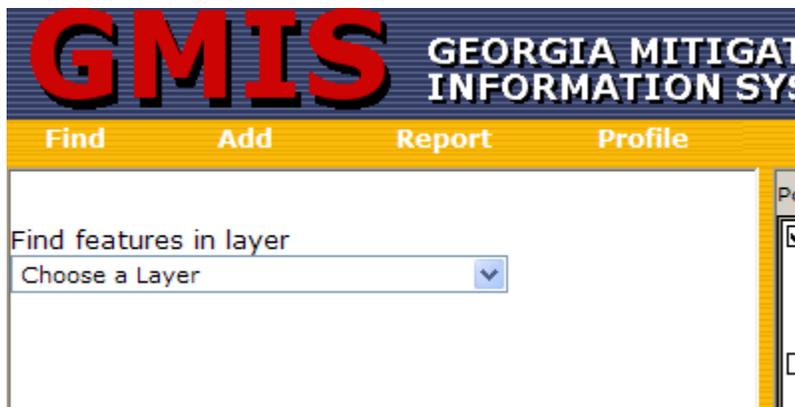
1. To run the critical facilities report, in the gold area above the map, click on the word "Report." Four drop down boxes should appear in the white area to the left of the map.
2. The first box should say "All My Facilities." If it does not, click on the arrow next to the box and select "All My Facilities."
3. In the second box, click on the arrow and select "Jurisdiction."
4. In the third box, click on the arrow and select the hazard that you want to report on. If it is flood, select flood; if it is wind, select wind; etc.
5. In the fourth box, click on the arrow and select "Totals By Hazard Score."

6. Click on the “Build Report” button.
7. Once the report has appeared, scroll down to the bottom of the screen. There are two export options: “Raw Data Format” and “Report Format.” Both of these are links that allow you to download the information contained in the report. Click on “Report Format.” This will create a Microsoft Excel report of your data that mirrors the report currently on your screen.

One requirement in creating your mitigation plan, as mentioned above, is to report on critical facilities by jurisdiction. However, it may also be beneficial to report separately on campus owned facilities. As you enter the facility data into the online GMIS tool, make sure to include the assigned name for your facility in the *Other Detail* box on the details screen. Once all of the campus facilities are entered into GMIS and each one is specifically identified as described above, you will be able to run reports on just the campus facilities by selecting only the facilities that you want to run the report on. In order to do that, you can either manually select each individual facility by clicking on it while holding down the *Shift* key, or you can take the following steps to select them all at once:

Searching for Campus facilities:

1. Click on the word *Find* at the top left hand corner of the screen. A drop down menu will appear on the left hand side as shown below:



2. Open the drop down menu by clicking on the arrow button next to it and select *Critical Facilities*. Another drop down menu will appear just below it.
3. Open the new menu and select *Other Detail*. Another new drop down menu will appear just below that.
4. Open that menu and select *is*.
5. In the box that appears below that, simply type in the assigned name of the campus that was entered into the *Other Detail* section, described above, for each facility during the data entry process. Then click on *Run Query*.
6. A list of facilities for the school will appear to the left of the map.

Running reports on selected facilities:

1. Follow the steps above for running reports with two exceptions. In the second step, rather than selecting “All My Facilities,” make sure the first box says “Currently Selected Facilities.” In the third step, rather than selecting “Jurisdiction,” select “countywide.” All the other steps will be the same.

GEMA Mitigation Field Data Collection Form Guidance

Getting Started

The GEMA Mitigation Field Data Collection Form is designed to serve several functions both within the Mitigation Planning grant framework and for use by local and state government. This worksheet provides a higher level of detail than what FEMA presented in the How-To #2 Understanding Your Risks Worksheet #3b.

This worksheet is designed to serve primarily the needs of Georgia Counties participating in the mitigation planning grants.

The GEMA Field Data Collection Form

The field data collection form is provided to reduce the time and effort required to collect and record facility information for entry into the on-line database. Definitions for the various Facility categories can be found on the back of each form.

This document will guide you through each field on the “Field Data Collection Form.”

Note: For any field marked as “Required,” information must be entered into the on-line data collection form before it will be available for reporting and/or mapping.

For existing (DCA) facilities, verify that the facility name, address, and facility type. You do not need to verify the coordinates (Latitude and Longitude). You will still have additional required information to fill in for the DCA facilities.

Note: Required fields on the form have a bold drop-shadow around the data box. Make sure you fill in at least the required fields for all facilities.

Explanation for each Data Box

Facility Name (Required)

For existing facilities (from the DCA database), verify that the name is correct.

Write any changes or updates below the DCA facility name in the box.

For new facilities, write the proper name of the facility. *Note: There is also a place on the form to mark the “Facility Type.”*

Location

For those facilities that already have preloaded coordinate values, you do not need to verify or replot the coordinates (Latitude and Longitude).

Longitude (Required)

The Longitude value is in “Decimal Degrees.” This is usually determined using a Global Positioning System (GPS) device. Also, this number will be negative.

Latitude (Required)

The Latitude value is in “Decimal Degrees.” This is usually determined using a Global Positioning System (GPS) device. Also, this number will be positive.

Location Method (Required)

This is the location method used to determine the Latitude and Longitude of the facility. For new facilities, this will always be either GPS or Geocode. The other options listed (GPS-closed, GPS-dnr, and Manual add) are the location methods used for the original DCA database. Contact your GEMA Hazard Mitigation Planner if you have any questions.

Address 1

Physical street address of the facility.

Address 2

P.O. Box or mailing address of the facility.

City

Street address city.

Zip

Five digit zip-code.

Jurisdiction (Required)

The government entity that owns or has jurisdiction over the facility. We need this information in order to satisfy FEMA’s requirement to report facilities hazard exposure by jurisdiction. This will also help develop mitigation projects, which must be applied for by the governing jurisdiction.

Daytime Occupancy

Estimate of the number of people in the building during normal business.

Night Occupancy

Number of people in the building outside normal business hours and/or overnight.

Building Value**Number of stories**

This is the number of finished floors for the facility.

Year Constructed

The year the building is built. This is used to determine what building codes and standards were used.

Area Sq Ft (Required)

This is the area, in square feet, that is finished space in the building.

Building Value (Required)

This is the estimated building value, not including contents.

Valuation Year (Required)

Year that the building value estimate was done.

Building Valuation Type (Required)

The valuation method used to determine the value of the building. Put a check-mark beside the option that applies: Unknown, Market Value, Assessed Value, Replacement Value, or Other.

Functional Use Value

This estimate represents the value of the building's use or function that would be lost if it were damaged or closed due to a hazard event or disaster. A standard way to calculate the monetary damage from losing public functions is to use the budget of the service as a proxy for its value to the community. For private functions, the table on page 3-12 in FEMA How-To #2 Understanding Your Risks shows the average annual sales or production based on square footage. *Use ballpark estimate using best available data.*

Displacement Cost Per Day

The displacement cost is the dollar amount it would cost for the function (business or service) to be relocated to another structure because of a hazard event or disaster. These costs include rent for temporary building space per month, one-time displacement costs to set up operations in the new space, lost rent per month from all tenants and other costs of displacement. For example, a total monthly operating expense cost of \$30,000 would equal \$1,000 per day displacement cost, assuming a 30 day month. *Use ballpark estimate using best available data.*

Contents Value

This is the cost estimate, in dollars, to replace the contents in a structure. Local risk management or building insurance management officials may have detailed records. If local level data sources are not available, use the table on page 3-11 in FEMA How-To #2 Understanding Your Risks to estimate. *Use ballpark estimate using best available data.*

Contents Value Year

This is the year that the amount used for the Contents Value came from. For example, 2009 (from tax or insurance information)

Contents Description

Provide a brief description of contents if they are unusually expensive or difficult to replace, such as 911 communication equipment.

Critical Facility Type or Community Element Type (Required)

Essential Facility

An essential facility is a critical facility that is essential to the health and welfare of the population. The potential consequences of losing functions or services from this type of facility are higher than any other type of structures. Interruption or loss of function from these types of facilities would jeopardize human life and public safety. Essential facilities include: hospitals and other medical facilities, police and fire stations, emergency operations centers, evacuation shelters and schools, and other structures that house first responder equipment or personnel.

Transportation Systems

Transportation infrastructure or facilities. Examples include:

Airways: airports, heliports,

Highways: bridges, tunnels, roadbeds, overpasses, transfer stations.

Railways: tracks, tunnels, bridges, rail yards, depots, switching stations.

Waterways: canals, locks, ports, ferries, dry-docks, piers.

Lifeline System

Corridors of flow for equipment, supplies and services. Transportation systems can also be Lifeline Systems. The best physical example of a lifeline would be a bridge and right-of-way that could include utilities and communication. Examples include: potable water, wastewater, oil, natural gas, electric power, and communication.

High Potential Loss Facility

Facilities that would have a high human loss associated with their damage or failure. Examples include: nuclear power plants, dams and military installations.

Hazardous Materials Facility

Facilities that produce or house industrial/hazardous materials, such as corrosives, explosives, flammable materials, radioactive materials, and toxins. Check to see if your county has a Local Emergency Planning Committee (LEPC) and an existing Hazardous Material listing.

Important Facility

These types of facilities are vital for overall day to day community functions, and ensure full recovery in the wake of a hazard or disaster event. Examples include: government buildings and functions, major employers in the area, bank and financial institutions, non-nuclear power generators, certain commercial establishments such as grocery stores, hardware stores and gas stations, technical schools, colleges, and universities.

Vulnerable Population

Is there a vulnerable human population that occupies the structure that would need special assistance, medical care or other actions before, during or after a hazard event or disaster? Examples include: elderly people, jail populations, hospitals, nursing homes,

day care centers, people with mental, physical or mobility problems, and non-English speaking populations.

Economic Assets

Larger economic assets that are vital to the prosperity of the community. Examples include major employers and financial centers in your community or area that impact the local or regional economy if significantly disrupted.

Special Considerations

High-density areas (residential or commercial development), if damaged or impacted in a hazard event or disaster, could result in high death tolls or injury rates. Examples include: larger factories or industries, large vertical apartment or housing complexes.

Historic Considerations

Historic, cultural or natural resources, including structures and areas that are identified and protected under state or federal law. Examples include: state parks, federal parks, museums and historic districts.

Other Facilities

Any other significant locally identified facility that does not fit into another category of those listed above. A very brief description should be noted in the "Other Details" field.

Facility Type

Mark only the one that most accurately describes the function of this facility. Education facility types are listed in the left column, while other municipal facility types are in the right column. Most facility types are self explanatory. The following are definitions of the type of landfill facility as defined by the LPB. The code designations are:

C&D = Construction and Demolition Waste Landfill. Accepts waste building materials and rubble resulting from construction, remodeling, repair and demolition operations of pavements, houses, commercial buildings, and or other structures. Such wastes include but are not necessarily limited to wood, bricks, metal, concrete, wall board, paper or cardboard.

L = Dry Trash (non-putrescible waste) Landfill (older designation)

MSWL = Municipal Solid Waste (putrescible waste) Landfill. Accepts solid wastes from homes, industries, commercial buildings, or institutional facilities. These are land-fills which have installed liners and leachate collection systems on permitted acreage, as required under the federal subtitle D regulations.

SL = Sanitary Waste (putrescible waste) Landfill (older designation).

Building Type Code

Mark one of the following codes for the facility. This list is also located on the back of the form. Either put a mark beside the appropriate code or write the code in the box on the upper right-hand corner of the front of the form.

C1 = Concrete Moment Frame

C2 = Concrete Shear Walls
C3 = Concrete Frame with Unreinforced Masonry Infill Walls
MH = Manufactured Housings
O = Other Building Type
P1 = Precast Concrete Tilt-Up Walls
P2 = Precast Concrete Frames with Cast-in-Place Concrete Shear Walls
RM1 = Reinforced Masonry Bearing Walls with Wood or Metal Deck Diaphragms
RM2 = Reinforced Masonry Bearing Walls with Precast Concrete Diaphragms
S1 = Steel Moment Frame
S2 = Steel Braced Frame
S3 = Steel Light Frame
S4 = Steel Frame with Cast-in-Place Concrete Shear Walls
S5 = Steel Frame with Unreinforced Masonry Infill Walls
URM = Unreinforced Masonry Bearing Walls
UNK = Unknown Building Type
W1 = Wood, Light Frame
W2 = Wood, Commercial and Industrial

Occupancy Code

Mark one of the following occupancy codes for the facility. This list is also located on the back of the form. Either put a mark beside the appropriate code or write the code in the box on the upper right-hand corner of the front of the form.

AGR1 = Agriculture Facilities and Offices
COM1 = Retail Trade
COM2 = Wholesale Trade
COM3 = Personal and Repair Services
COM4 = Professional/Technical Services
COM5 = Banks
COM6 = Hospital
COM7 = Medical Office and Clinic
COM8 = Entertainment & Recreation
COM9 = Theaters
COM10 = Parking Garages
EDU1 = Grade Schools and Admin. Offices
EDU2 = Colleges and Universities
GOV1 = Government - General Services
GOV2 = Government - Emergency Response
IND1 = Heavy Industrial
IND2 = Light Industrial
IND3 = Food/Drugs/Chemicals
IND4 = Metals/Minerals Processing
IND5 = High Technology
IND6 = Construction Facilities and Offices
REL1 = Churches and Non-Profit Organizations
RES1 = Single Family Dwellings
RES2 = Manufactured Housing
RES3A = Duplex
RES3B = 3 to 4 Units
RES3C = 5 to 9 Units
RES3D = 10 to 19 Units
RES3E = 20 to 49 Units

RES3F = > 50 Units
RES4 = Temporary Lodging
RES5 = Institutional Dormitories
RES6 = Nursing Homes
UNK = Unknown

Comments

This space can be used to note the information source, name of the person collecting the data, or for more details about the facility not captured elsewhere.

Please feel free to contact your GEMA Hazard Mitigation planner with any questions.