

Albany Dougherty
Flood Hazard Mitigation Plan
Annual Progress Report

Prepared by
Planning and Development Services
City of Albany, Georgia

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**ALBANY DOUGHERTY
FLOOD HAZARD MITIGATION PLAN
ANNUAL PROGRESS REPORT
2011**

Purpose of Annual Progress Report

The City of Albany and Dougherty County participate in the National Flood Insurance Program (NFIP) through the Community Rating System (CRS) Program, which enables property owners in the city and county to obtain flood insurance. A requirement for participation in this program is the adoption and utilization of a flood hazard mitigation plan. This process includes a procedure by which certain city and county departments incorporate, as appropriate, the requirements of the mitigation plan into other plans and planning implementation tools, such as the Pre-Disaster Mitigation Plan, Emergency Operations Plan, Albany Dougherty Comprehensive Plan, Albany Dougherty Zoning Ordinance, Development Handbook, Floodplain Management Ordinances, Dougherty County Storm Drainage Improvements Report, and the Capital Improvements Plan. The Albany Dougherty Flood Hazard Mitigation Plan was adopted by the City of Albany on April 28, 2009, and by Dougherty County on May 11, 2009.

Our ratings in the NFIP Community Rating System are the result of ongoing public education and mitigation activities. These efforts have resulted in lowering the cost of flood insurance in the city and county. The City of Albany is a Class 8; a 10% discount in the high risk zone and a 5% discount in the lower risk zones. Dougherty County is a Class 6; a 20% discount in the high risk zone and a 10% discount in the lower risk zones.

One requirement in the annual recertification process for the CRS Program is to monitor, evaluate, and update the mitigation actions recommended in the Flood Hazard Mitigation Plan. The review of these mitigation actions is to be presented in an Annual Progress Report made available to the public. This Annual Progress Report constitutes the second review of the plan by the Flood Hazard Mitigation Plan Committee since its adoption. The following information presents the progress made to date on specific mitigation actions proposed in the Flood Hazard Mitigation Plan and in last year's progress report.

Mitigation Actions

Mitigation Action 1 - Ongoing

Apply for Flood Mitigation Assistance funds to make the buyout option available to willing owners of properties vulnerable to flood damage in the City of Albany and Dougherty County. Repetitive Loss Properties would be top priority.

The expense of funding 10% to 25% of the cost to purchase repetitive loss area properties under the Flood Mitigation Assistance Programs and the expense of maintaining these additional properties as deed-restricted open space continues to be an issue. Staff will determine if there are repetitive loss area properties in the river corridor. If so, staff will meet with the Greenspace Committee to request matching funds to assist with the purchase of these repetitive loss area properties. Staff could also request the owner to provide the matching funds towards the purchase price and will research the utilization of Transfer of Development Rights. However, the ownership and maintenance of the deed-restricted open space remains an issue. There was discussion on the deed-restricted land being utilized for community gardens or publicizing the leasing program to adjacent property owners as a way of maintaining the land.

Mitigation Action 2 – Ongoing

Maintain the three-foot freeboard requirement in effect for Dougherty County since 1999. (Freeboard is the elevation of the finished floor above the level of the 100-year flood required for new construction). Propose that the City of Albany amend its Floodplain Management Ordinance to adopt this standard.

The existing three-foot freeboard requirement is maintained in the county's Floodplain Management Ordinance, adopted, August 17, 2009. The three-foot freeboard requirement has not been proposed to the City Commission. A discussion of the three foot freeboard requirement by the committee resulted in the conclusion that, because the city is so built out, raising the freeboard requirement by two feet would result in too many Substantial Improvement regulation issues and variance requests. Staff will look into what other cities have done in regard to a higher two or three foot freeboard requirement.

Mitigation Action 3 - Ongoing

Continue diligent enforcement of building codes and floodplain management regulations to maximize property protection and safety of residents and to maintain the good standing of the city and county with the National Flood Insurance Program.

Education of the staff in all departments with responsibilities in construction and enforcement of building codes and floodplain management regulations has been ongoing in order to clarify regulations in regard to the siting of structures, construction standards, flood vents, substantial improvement, and Elevation Certificates. The *Floodplain Management in Georgia Quick Guide* and a number of FEMA publications have been distributed to the staff for their reference in regard to regulations. Links to these publications and many helpful websites are on the city website and accessible to the staff and public. A five page handout has been prepared to explain the basic requirements for construction, substantial improvement or the placement of mobile homes or accessory buildings in the flood hazard zone. Staff members have attended seminars, conferences and webinars in regard to building codes and regulations in the flood hazard zone.

An additional packet of information, forms and contractor and owner affidavits has been prepared specifically for the Substantial Improvement/Damage regulations.

An ongoing problem in flood hazard areas is the conversion of non-living space below the required design elevation into living space. Planning and Development Services has prepared a non-conversion agreement and affidavit to be signed by the property owner that will be recorded with the county clerk of court.

The Department of Community and Economic Development is utilizing engineered flood vents in the buildings they construct in the flood hazard area.

Floodplain Management Ordinance regulations are enforced through the subdivision and site plan review process and the building permitting process. The Floodplain Management Review Board reviews applications for variances to the ordinance and follows ordinance guidelines for the granting or denial of variances.

The City and County Floodplain Management Regulations should be reviewed, updated, clarified, and brought into compliance, as necessary, within this next year. A Repetitive Loss Area layer will be added to the staff GIS database.

Mitigation Action 4 - Ongoing

Continue to protect from additional development properties that are vulnerable to flood damage; Flint River Corridor properties and other wetlands are priorities.

Greenspace continues to seek funding to buy properties that are in the flood hazard area. They were awarded \$400,000 in funding for acquisition of property, planning and signage improvements from the SPLOST VI referendum.

Planning and Development Services will look into a cluster zoning option for the zoning ordinance, which would encourage developers to avoid environmentally sensitive lands

such as flood hazard areas and isolated wetlands. Federal regulations protect wetlands adjacent to navigable waters. State regulations under the Mountain and River Corridor Protection Act require a 100 foot buffer along the Flint River and Kinchafoonee Creek. In the county, the zoning ordinance requires a minimum 75 foot buffer from streams. The zoning ordinance is currently being updated and clarified. Regulations on river, stream and wetland buffers will be reviewed for clarification and the inclusion of best practice and No Adverse Impact protection measures to mitigate flooding.

Mitigation Action 5 - Complete

When the final report is received from Phase II of the USGS 2-dimensional model study of the Flint River corridor, carefully assess the resulting recommendations. Take action as indicated. Include the results in the review of this document.

Phase II of the USGS 2-Dimensional Model Study of the Flint River Corridor has been completed and is posted at <http://pubs.usgs.gov/sir/2008/5223/>.

Over the years, a number of measures have been proposed by various engineers and the Corps of Engineers 205 Study to reduce the impact of floods on the Flint River. These include dredging and widening the Flint River channel beneath the Oakridge Drive Bridge, digging an overflow canal across the ox-bow above the Oakridge Drive Bridge, and removing the man-made island located just down stream from the Oglethorpe Boulevard Bridge. The idea is that if you can move the water downstream faster, then the overall height of the Flint River will be reduced during flood stage.

These would be costly measures to implement. The flood model developed by the U.S. Geological Survey (USGS) provides a cost effective means of testing the results of these actions without actually having to implement them. The results of the study are that none of these proposed solutions significantly reduce the impact of flooding.

In addition, Albany and Dougherty County worked with the USGS to produce a model that indicates, in one foot increments, adjacent land areas that flood as the Flint River rises during flood stage. This mapping is currently featured as an emergency response tool on the National Weather Service (NWS) website webpage: <http://water.weather.gov/ahps2/inundation/inundation.php?wfo=tae&gage=abng1>

The original study area for the inundation map extends from the Georgia Power Dam at Lake Chehaw south to about a quarter mile below the Oakridge Drive Bridge. Albany and Dougherty County, the USGS, and the NWS would like to extend the coverage area north into Lee County and south to the Mitchell County Line. LiDAR and a high quality Digital Elevation Model (DEM) are required data sources to complete this project. We are currently searching for a funding source to extend the inundation map.

This year, the City of Albany acquired LiDAR data and a DEM for Albany and Dougherty County. The purpose of the LiDAR and DEM is to produce high quality elevation/topographic maps and models. This project was paid for with SPLOST V funds.

Lee County also participated in the project. Lee County purchased LiDAR and a DEM for an area that includes all of Lee County from Forrester Parkway south to the Dougherty County Line. This data will be available for projects as well.

In addition to providing high quality elevation/topographic data for local use, FEMA has told us that they would use the LiDAR next time they remap the FIRMs for Dougherty County. The LiDAR and DEM are the highest quality data available for mapping and modeling. GIS will look into whether this information can be distributed to the public for a fee.

The LiDAR topographic survey information will also be utilized in a Percosin Tributary Flood Study to determine Base Flood Elevations and a more accurate floodplain delineation for the two arms of the tributary of Percosin Creek, from Gillionville Road north up the Lakeview Branch to approximately the intersection of Lakeview Drive and Magnolia Street, and northwest up the Kingswood Branch to the termination of the floodplain just south of Pheasant Drive. This study includes the neighborhoods of Kingswood, Audubon, Westover, Lake Park and Florary Merry Acres. A Letter of Map Revision (LOMR) request to FEMA will be prepared in conjunction with this study. This study and LOMR request should be completed in 2012.

Planning and Development requested a correction to the FIRM, and in February of 2011, received a LOMR to correct the delineated Special Flood Hazard Area along the Percosin Creek Tributary 3 drainage canal from just downstream of Gillionville Road to approximately 1,720 feet upstream of Whisperwood Street. This correction significantly reduced the delineated Special Flood Hazard Area along the drainage canal. The affected neighborhoods were Whisperwood, Gillionville Acres, Audubon Plantation, and Greenbrier. Property owners affected by the LOMR were notified by mail. The existing National Flood Hazard layer on our GIS web browser was replaced by an updated National Flood Hazard Layer containing the revised floodplain delineation. Paper FIRMs were updated with LOMR attachments. The digital FIRM on the FEMA Map Service Center website was updated with the LOMR.

Mitigation Action 6 - Ongoing

Increase the level of citizen education on flood issues in Albany and Dougherty County.

Annual public outreach efforts continue to expand, including more use of the internet for information. The existing and additional outreach efforts of last year have been continued

and updated as necessary in order to educate the public, maintain our Community Rating System level and work towards improving our level. A number of outreach activities have been added in the last year. A flooding and flood protection information section on the city website presents links to helpful websites and publications, a brochure on flood insurance, a brochure on flood safety and flood protection, directions on how to use the public GIS web browser, a flood fact sheet, and a ready.gov brochure on preparing a three day kit and a plan. Additional information has been added to the mailing to Repetitive Loss Area residents on retrofitting homes and obtaining mitigation financing. The Floodplain Management Review Board now has a section on the city website. Packets of information on Substantial Improvements and on Construction in the Special Flood Hazard Area have been prepared for the public. A full page on flood safety was published in the Community Information section of the Plantation Publishing Albany Area phone book. Flood-related reference materials in the Central Public Library and the Planning and Development Services library continue to expand, and the *Floodplain Management in Georgia Quick Guide* has been distributed to all public libraries in the city and county and is a link on the city website.

The public GIS Web Browser, with use instructions, allows the public to view Special Flood Hazard Areas as an overlay on aerial photo and parcel boundary layers. This year, GIS has added a Base Flood Elevation Points layer and Letter of Map Amendment layer to the staff and public GIS web browser. The 2006 aerial photo layer has been updated with a 2011 aerial photo layer.

Information or press releases on flood protection, flood insurance, flood hazard areas, and floodplain management regulations should be sent to the local newspapers. This information should also be presented to the public through a county-wide flood protection information fair.

Mitigation Action 7 – Ongoing

Continue to maintain and refine warning systems to provide timely, accurate information to citizens of the City of Albany and Dougherty County, thus promoting public safety.

The city and county continue to utilize the codeRED phone alert system and the siren warning system.

CodeRED is a voice notification system designed to meet emergency alert situations on a 24/7 basis; it is used in the event of an emergency requiring immediate notification. Dougherty County and City of Albany citizens are encouraged to register for CodeRED via the City of Albany Website. Citizens may also call the Albany Fire Department's Emergency Management Agency. At this time, there are about 32,000 subscribers to the codeRED system.

The siren warning system continues to be utilized and maintained. There are 14 sirens within the city limits. If funding becomes available, EMA should upgrade the existing sirens and consider installing additional sirens in developed areas of the county, such as Putney and College Park and Radial Subdivisions.

The Dougherty County Floodplain Management Ordinance requires commercial and multi-family properties constructed in or within 100 feet of the floodway to include an automated flood warning system that is activated by rising flood waters. The audible alarm sounds at one-foot below the base flood elevation.

There is a river gauge on the railroad trestle below the bridge downstream from Liberty Expressway. River gauge information can be viewed on the NWS website webpage: <http://water.weather.gov/ahps2/hydrograph.php?wfo=tae&gage=abng1&view=1,1,1,1,1,1,1,1&toggles=10,7,8,2,9,15,6>. The flood stage at this location was raised from 20 feet to 26 feet this past year due to flood mitigation measures.

A number of flood information websites involving warning systems are now included in the public outreach materials and as links on the City of Albany website, www.albany.ga.us, on the home page under “Public Safety Links”, “Flooding and Flood Protection”. This page provides links to codeRED, the NOAA NWS Advanced Hydrologic Prediction Service (including the hydrograph indicating real-time river gauge information and the flood inundation map), NOAA Weather Radio information and the USGS live Flint River Rivercam at Riverfront Park. CodeRED also has a direct link on the City of Albany website homepage.

The Albany Dougherty Pre-Disaster Mitigation Plan was updated on March 29, 2011, and includes the objectives of the Albany Dougherty Flood Hazard Mitigation Plan, as well as additional flood mitigation objectives. This plan is updated every five years.

City and county staff gave presentations on local flood mitigation, warning and response efforts at a regional Flood Fight conference in Albany, July, 2011. This conference was attended by emergency responders.

Mitigation Action 8 - Complete

In preparation for the next SPLOST referendum and other funding opportunities, identify needed storm water management projects to be included in infrastructure work in city and county. Include an analysis of the need for additional back-up power generation for the Joshua Street Wastewater Treatment System.

After the floods of March and April 2009, Dougherty County Public Works prepared a priority list of storm drainage improvements with the final list approved in August of 2009. These projects will be implemented as funding becomes available.

In the priority list of storm drainage improvements, Public Works has completed the following priority projects since 2009:

- No. 1: construct a drainage structure,
- No. 2: construct a force main,
- No. 3: construct a force main,
- No. 4: replace driveway pipes,
- No. 7: construct a pump station and force main,
- No. 9: construct a drainage structure and pipe to pond,
- No.10: construct a pond and force main, and
- No.11: construct a force main.

Project No. 5, to construct a pump station and force main, cannot be completed because the R.O.W. for the retention pond cannot be acquired from the property owner. Project No. 6, a pump station and force main, is about to be contracted out. Project No. 8, to construct a force main, is in the process of completion. In regard to Project No. 12, to construct a force main, Public Works has been unable to acquire an easement from the property owner. Project No. 13, culvert replacement, has been started.

Funding to the city of \$9,000,000 in SPLOST VI funds was approved for Pump Station 50, sewer upgrade/extensions, sewer replacement and GIS mapping. The county was approved for \$4,300,000 in SPLOST VI funds for continued improvements in storm drainage and equipment.

In the event of a 100-year flood (or worse), the Joshua Street Wastewater Treatment Plant would have to be shut down. Back-up power generation could be utilized for other emergencies, but not for a flood situation. An analysis of the need for back-up power generation would be more appropriate for inclusion in the Albany Dougherty Pre-Disaster Mitigation Plan in regard to other hazards.

The City of Albany and Dougherty County strive to improve their flood mitigation measures, with guidance from the Community Rating System. The Community Rating System Manual should be reviewed to ascertain as to whether there are enough additional mitigation activities and accomplishments to apply for additional credit to improve the city and county rating by another class level. At the last five year audit in 2009, Dougherty County was credited with 2,270 points and is 230 points from a Class 5. The City of Albany was credited with 1,313 points and is 187 points from a Class 7. A one level improvement would lower the flood insurance premiums paid by city and county property owners and renters in the high risk areas by five percent. Rather than wait for the next audit in 2014, the city and county should apply for additional credit in this next year if it improves the class level.

Release of Annual Progress Report for Public Review

Copies of this Annual Progress Report have been submitted to the Mayor and Board of City Commissioners and the Chairman and Board of County Commissioners. A press release announcing the report and its availability to the public has been sent to the Albany Herald. The Annual Progress Report is available for public review at the following locations:

Planning and Development Services
240 Pine Avenue, Suite 300
Albany GA 31701
229-438-3901

Central Library
Reference Section
300 Pine Avenue
Albany, GA 31701
229-420-3200

A copy of this report is posted on the City of Albany and Dougherty County Website (www.albany.ga.us) under the City of Albany Planning and Development Services section, "Ordinances and Regulations."