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North Carolina/ South Carolina 2011 Joint Annual Conference

For the second time in 5 years, members of South Carolina Association of Hazard Mitigation (SCAHM) and NCAFFPM will meet in joint conference. The very successful 2006 conference in Myrtle Beach provided many opportunities for exploration of

floodplain issues across a broad spectrum of topics. This year's conference, to be held in North Charleston at the Sheraton Charleston Airport Hotel, promises to be larger in information available and in attendance. Our dates are April 12-15 and will include some new early bird sessions, golf tournament and many opportunities for networking, CEU's, field trips as well as meaningful plenary and concurrent sessions. The associations will of course provide some social time designed to make this learning experience a fun, meaningful, and memorable conference.

Visit www.ncaffpm.org for detailed information. Any questions, feel free to contact conference co-Chair, John Fullerton at john.fullerton@wilmingtonnc.gov or 910-341-3247 or any NCAFFPM Board member. ▲

MIP Shutdown Set for April 1



FEMA

FEMA's Mapping Information Platform (MIP), a database used to track map change requests such as LOMAs, LOMR-Fs, CLOMRs, and LOMRs, will be inaccessible for approximately two weeks beginning April 1. Acknowledgement of new request cases and issuance of completed cases will be delayed during this period. Processing of active cases will continue but no determination letters will be issued.

For more information contact the FEMA Map Information Exchange (FMIX) website at www/floodmaps.fema.gov/fhm/fmx_main.html or your local LOMC manager:

North Carolina — Steve Garrett, CFM (919-715-5711 x118 or sgarrett@ncem.org)

Mecklenburg County — David Love, PE, CFM (704-432-0006 or david.love@mecklenburgcountync.gov).

See page 4 for the FEMA announcement.

From the Chairman's Desk



ROBERT BILLINGS, PE, CFM
NCAFPM CHAIRMAN

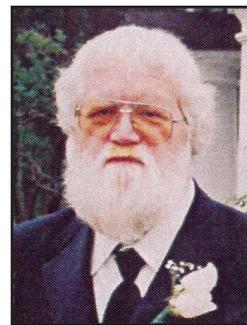
As expected, we met Cherokee head-on! Last October, the Association traveled to Cherokee, NC for our annual Fall Floodplain Institute. We were met with beautiful weather and a large hotel with ample meeting space. Whenever we try a new location for a conference or floodplain institute, we are always anxious with the many unknowns associated the new location. Couple the new location anxiety with a very long drive time from almost anywhere in the state and a weak economy, and you have the recipe for a jittery group of board members. We usually average around 80 attendees for the Fall Floodplain Institute — our final numbers in Cherokee were over 100. Although some areas around the hotel and meeting areas were a little smoky, we had an overwhelming positive response from our membership. If everyone agrees, we are probably looking at a three venue rotation for the Fall Floodplain Institute: Asheville, Boone and Cherokee. We are currently planning on Boone, NC for the 2011 Institute.

In the early spring of 2006, we held our annual conference in North Myrtle Beach, SC along with the South Carolina Association of Hazard Mitigation. That was a great conference and is still discussed in smoky alleys and behind closed doors. As we are approaching the spring of 2011, we are planning another joint venture with our SC friends. In April, we will jointly host the Carolinas Floodplain Conference in North Charleston! Based on the level of interest and the number of abstracts for presentations received (the most we have ever received) this will prove to be another great conference. We are planning a full agenda of floodplain management and technical presentations. We are also offering pre-conference workshops and two CFM exams. If you take the first CFM exam, and pass, and stay for the conference you will receive continuing education credit. We are also planning an eventful social agenda as well – I'm not sure about the cages but we are checking.

On a sadder note, on March 9, 2011, Patrick Armstrong was called home. This was a tall man that cast an even taller shadow. I didn't really see the extent of the shadow until this week. Patrick really enjoyed his job and he was good at it. Patrick could solve complicated issues and could see the end point of a project through a bureaucratic nightmare of paper work – just think, a multi-jurisdictional hazard mitigation plan for a county with fifteen municipalities. At the 2010 NCAFPM annual conference in Wilmington, Patrick received the North Carolina NFIP Coordinators Award for his work on Gaston County's Hazard Mitigation Plan. He was not only very technical minded but he was also a good teacher. One gentleman told me, "Patrick would explain complicated issues to me and not make me feel stupid." This man will be sorely missed. Patrick Armstrong was a devoted husband and father. He was a Certified Floodplain Manager. He was a friend and he was a good man.

Robert Billings, PE, PH, CFM
Chair - NCAFPM

In Loving Memory
Clarence "Patrick" Armstrong III
May 18, 1953 - March 9, 2011



Surviving Relatives

Mother, Harriet Harrison Armstrong
Wife, Donna Miller Armstrong
Daughters, Melissa Armstrong
Melody Adams & husband, Daniel
Leslie Miller

Grandchildren, Mason Adams & Ella Grace Adams

Preceded in death by his Father,
Clarence Patrick "C.P." Armstrong, Jr.

Flood Insurance is a **Good Thing**

CRS Communities can Encourage Purchase of Policies

GARY HEINRICHS AND BRUCE BENDER, ASFPM INSURANCE COMMITTEE CO-CHAIRS

Note: *Communities that participate in the CRS can receive credit points for promoting flood insurance, but that's not the most important reason for supporting the purchase and maintenance of building and contents coverage. This article, excerpted from one that appeared in the Association of State Floodplain Managers' News & Views, reiterates the rationale for making flood insurance a priority in any community's flood mitigation approach.*

Self-reliant, sustainable communities know that flood insurance is the only vehicle guaranteed to assure a smooth and complete recovery from a damaging flood. Experience has shown that an insured community recovers more quickly and more thoroughly than it would if no insurance were in place. Consider that:

Local officials can help their communities get ready for the next flood by making flood insurance a high priority. Here are some ideas:

- Promote the advantages of flood insurance in town newsletter articles, public service announcements, town events, and other outreach projects.
- When residents apply for permits for projects in the floodplain, remind them that their homeowners' policy does not cover flooding, but they can purchase it through their own insurance agent.
- Check the amount — and distribution — of flood insurance coverage in your community to see if some areas need to be targeted for receiving additional information. (CRS communities get a list of local flood insurance policies from FEMA once every year).
- Supply elevation certificates from your building permit files to insurance agents, real estate agents, and property owners.
- Let the insurance agents in your community know that training in flood insurance is available. Better yet, arrange training sessions for them.
- Don't forget to explain the Preferred Risk Policy in all your promotional work.
- Buy flood insurance for community-owned buildings. This sets a good example and also ensures that the community will have financial resources for repair and rebuilding. Remember, even if a federal disaster is declared, the amount of assistance provided for flood-damaged public property will be reduced by the amount of insurance coverage the community should have had.

- People without the needed financial resources may not be able to make full repairs to their homes after a flood and may move back into an unsafe or unsanitary structure—if they move back at all. In either circumstance, neighborhoods can be prone to deterioration over time, which tends to result in social problems and also undermines the tax base.
- One of out every four damaged businesses does not re-open after a disaster, because they are not financially prepared to do so, according to the Institute of Business and Home Safety. Business closures reverberate through the local economy and the community, as jobs are lost, tax revenues decline, and consumer spending is disrupted.
- Very few floods are declared federal disasters. No declaration means no federal grants, loans, or temporary housing funds for the people or for the local government. And even in the few cases in which there is a disaster declaration, the vast majority of federal assistance to households comes in the form of small, restricted grants and disaster loans.

The good news is that flood insurance can remedy these situations. Renters and homeowners with building and/or contents coverage are assured of quick financial help to recover and to repair or rebuild. Businesses with the proper flood insurance coverage can repair, reopen, and put their employees back to work faster. Further, insured properties are eligible for Increased Cost of Compliance (ICC) payments—an additional source of funding that helps in local redevelopment. All of these circumstances generate a sense of well-being and positive outlook in a flood-damaged community.

Article reprinted from the NFIP/CRS Update August - September 2010 [excerpted from ASFPM's News & Views 22(5) 2010, pp. 8-9] . ▲

The Mapping Information Platform (MIP) Data Center Migration

Potential Impacts for LOMC Requesters

What is the MIP?

The Mapping Information Platform (MIP) is a database used in processing Letters of Map Change (LOMCs). This includes Letters of Map Amendments (LOMAs) and Letters of Map Revisions (LOMRs). The system will be taken offline for migration of servers and upgrade of software. This downtime could have some impact on the processing of LOMCs as the LOMCs are produced in this system. Some facts about the MIP and the migration project are below.

What is the MIP data center migration project?

The MIP data center migration is the relocation of the MIP hardware and software to a new and more secure data center. It also includes the upgrade of hardware, operating systems and middleware technology.

How will this affect LOMC requesters?

LOMC requests are processed using the MIP. A two-week downtime to complete the remaining technical activities has been scheduled for:

Beginning: Friday, April 1, 2011 at 9 p.m. ET

Ending: Monday, April 18, 2011 at 6 a.m. ET

The MIP will be unavailable for use in LOMC processing during the downtime. Therefore, delays in the processing of previously submitted LOMC requests may occur. For new LOMC requests received during this period, acknowledgement of the request will be delayed.

FEMA will be making efforts to limit the impacts to the processing of the LOMC requests. Once the system is back online, the acknowledgement letters will be generated and sent out. The review will still continue even if you do not receive an acknowledgement.

Existing cases will continue to be processed and reviewed, but final letters will not go out until the migration is complete and the MIP is back online. Please note that additional efforts will be made to complete cases before the system is taken offline.

For more information please visit the FMIX Web site:

https://www.floodmaps.fema.gov/fhm/fmx_main.html

How do I contact the FMIX?

Call 1-877-FEMA-MAP (1-877-336-2627)

Please note that the FMIX uses the MIP to track the status of cases and while the MIP is offline they will not be able to give a current status of LOMC cases.

For general NFIP information, e-mail: FEMAMapSpecialist@riskmapcds.com

For product information or to place an order, e-mail: MSCservices@riskmapcds.com

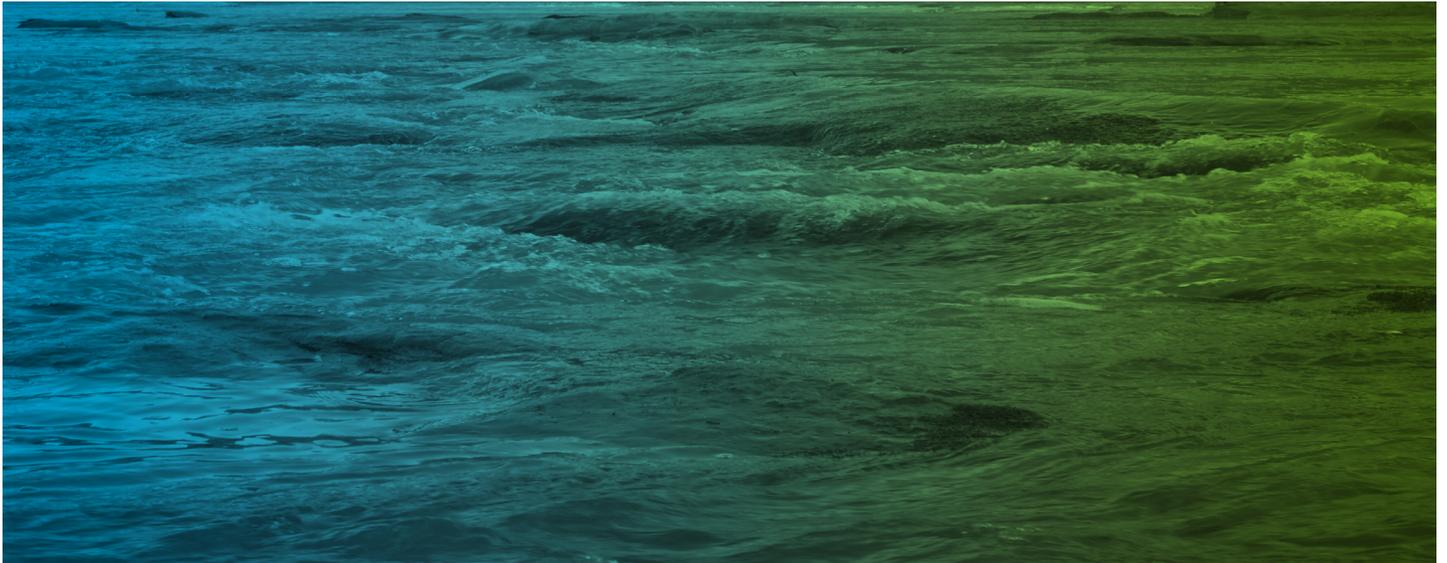
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As of January 1, 2011, the North Carolina CFM exam will no longer include NC specific questions. The ASFPM national CFM exam will be used from this point forward. The CFM Study Guide and other documents on the CFM page of the NCAFPM website are in the process of being updated to reflect the change to the national CFM exam. In the meantime,

FEMA 480- NFIP Desk Reference and Study Guide is still a very good review guide for the exam.

NCAFPM still has a goal to ensure that NC floodplain managers acquire and maintain knowledge of NC specific issues. The NCAFPM spring and fall conferences will always include many state specific (as well as national) topics on the agendas.

Keep us updated

Notify Anita at cfm@floods.org if you move. CFM renewals and other certification related mailed material is sent to your HOME ADDRESS. Also, make sure we always have your current employment information with correct email address. ▲

**Interest Meeting for North Carolina
Stormwater Association**

Through the MS4 permit renewal process, one permit renewal can drastically change the direction, expense and complexity of a stormwater program. We believe that advocacy and communication within the stormwater community are necessary if we hope to proactively influence and mold the future of stormwater programs in this state.

On **Wednesday, April 6, 2011**, an interest meeting will be held for consideration of creating a NC Stormwater Association and we want your input. The meeting will be from 10am-noon at the Lake Mackintosh Clubhouse (2704 Huffman Mill Road) in Burlington, NC.

It is anticipated that this Association will perform several critical roles and bridge gaps that exist between stormwater program managers and regulators (federal and state). Furthermore, it is likely that the Association will be an affiliate of the NC League of Municipalities. We are encouraged that the League has recognized how critical their resources and expertise are to maintaining successful stormwater programs throughout NC. We fully expect the League to be a cornerstone of this Association.

As for the functions and roles of this Association several areas of need have been discussed, including:

- 1 Promoting the sharing of programs and practices between the Phase I and Phase II communities.
- 2 Enhancing communication between NCDENR, EPA, and local governments.
- 3 Ensuring a proactive approach to regulatory changes and requirements.

This list is not meant to be inclusive. We look forward to hearing what you think is important. Your involvement will have a direct influence on the look and feel of this Association and stormwater programs throughout the state and nation.

Public Sector Stormwater Program Managers (or designee) should plan on attending this very important meeting. Please direct questions to Michael Layne at mlayne@ci.burlington.nc.us or (336) 222-5140. ▲



“Is That Your Final Answer?”

This article ran in the March 2010 issue of FlashFlood. The FloodSmart Team asked that we run it again because they have updated the statistics and the information is still very relevant and useful to floodplain managers.

The 5 Questions a Floodplain Manager Should Be Prepared to Answer

Providing home and business owners in your area with useful, actionable information is an effective way to reduce flood loss/property damage and make your community safer. Here are suggested answers to five key questions you are likely to get..

(1) Do I live in a flood zone?

Anywhere it can rain, it can flood – meaning everyone lives in a flood zone! Risk levels vary, but just because you haven’t experienced a flood in the past, doesn’t mean you won’t in the future. The best way to learn your individual flood risk is to locate your property on a flood map or talk to your insurance agent.

Please visit <http://maps.co.mecklenburg.nc.us/website/floodzone/> to view your community flood map. You can also learn your approximate flood risk through the National Flood Insurance Program’s (NFIP) “Risk Assessment Tool.” Visit FloodSmart.gov and enter your address. You’ll be provided with information about your property’s flood risk, flood insurance premium estimates and contact information for flood insurance agents in your community.

(2) Do I need flood insurance?

Flooding can happen anywhere but certain areas are especially prone to serious flooding. Depending on your property’s location, you could be considered at high-risk or moderate-to-low risk for a flood. Most homes and businesses in high-risk flood areas that have a mortgage are required to buy flood insurance. In moderate-to-low risk areas, the risk of being flooded is reduced but not removed. “Not required” is not the same as “not needed.”

(3) What can I do to reduce flood damage costs and ease recovery?

Being prepared for a flood not only helps keep your family safe – it can also help lessen flood damage and accelerate recovery efforts.

In addition to having a flood insurance policy, safeguard your home and possessions. Create a personal “flood file” containing information about all your possessions and keep it in a secure place, such as a safe deposit box or waterproof container. This file should include:

- A copy of your insurance policies with your agent’s contact information.
- A room-by-room inventory of your possessions, including receipts, photos, and videos.
- Copies of all other critical documents, including finance records or receipts of major purchases.

You should also develop a family emergency plan.

- Create a safety kit with drinking water, canned food, first aid, blankets, a radio, and a flashlight.
- Post emergency telephone numbers by the phone and teach your children how to dial 911.
- Know safe routes from home, work, and school that are on higher ground.

North Carolina Hazus User Group



If you are a Hazus user or an interested observer, please consider joining the North Carolina Hazus User Group (NCHUG).

Hazus is FEMA's national methodology that uses the ArcMap platform to model and estimate potential physical, economic, and social losses from floods, hurricane winds and earthquakes. Hazus is being used by federal, state, local communities, higher education and the private sector to support hazard risk assessments and mitigation plans, perform economic loss modeling and generally increase hazards awareness. Emergency managers have also found Hazus helpful to support rapid impact assessment and disaster response.

The NCHUG is grassroots and is comprised of a wide variety of Hazus practitioners (ranging from the casual enthusiast to the power user) and representatives of diverse disciplines - such as planning, first response, local government decision making, GIS analysis, emergency management and software development. There are no dues or exams to join. Everyone is welcome and first-timers are encouraged.

Visit the Hazus web space: www.usehazus.com/nchug. ▲

Questions, from page 7

- Ask an out-of-state relative or friend to be your emergency family contact.
- Have a plan to protect your pets.

And one more thing: take time to understand what's covered in your flood insurance policy. This will make it easier when you have to file a claim. To learn more about what you can do to reduce possible damage from a flood, visit FloodSmart.gov.

4) Is flood insurance expensive?

Coverage costs vary depending on how much insurance is purchased, what the policy covers, and the property's flood risk, but it's more affordable than you may think. The average premium for a yearly flood insurance policy is approximately \$600, but most homeowners in moderate-to-low risk areas are eligible for coverage at a lower rate. A Preferred Risk Policy premium offers building and contents coverage starting at just \$129 per year. Compare that to the tens of thousands of dollars in damage caused by a few inches of water from a flood, and you'll see that flood insurance is the best way to protect you from major flood financial loss. In fact, over the past 5 years, the average flood claim has amounted to nearly \$34,000.

(5) Where can I get more information about flood insurance?

To learn more about your flood insurance coverage options, visit FloodSmart.gov or contact your local insurance agent. You can also contact the NFIP by calling 1-800-427-2419 or emailing info@femafloodsmart.gov with questions.

E-mail us at info@femafloodsmart.gov and request a copy of our newsletter, which provides updates about the tools and resources available through FloodSmart. ▲

Go to floodsmart.gov and fill out the property address in the red box. Click "go" to get your personalized flood risk profile. Risk profiles are meant to be used as advisory tools for general flood hazard awareness and education.

Dry Floodproofing Existing Retail Structures

(Does it make dollars and sense?)

FRED ROYAL, PE, CFM
 PRINCIPAL, ROYAL WATER RESOURCES, PLLC
 ROYALWATER@NC.RR.COM

The Eastgate Shopping Center, located in Chapel Hill, North Carolina, was constructed in the floodplain and now sits directly on top of a perennial stream. Back in the 1960's, when it was beginning to be developed, there were practically no regulations — that is,

no FEMA/NFIP, Clean Water Act, Sections 401 and 404, stream buffers, stormwater management, set-backs, zoning, etc. As a result, the shopping center developer forced Booker Creek (a perennial stream with a watershed of 5.5 square miles) into a 9' x 14' bottomless culvert approximately 600 feet in length and with a slope of less than 0.5%. Thus, significant flooding events have occurred over time.

The culvert was constructed of cement block (CMU) walls on a spread footing and reinforced concrete pan joists on top, which also serves as a part of the parking lot above. In 2001, the center experienced flooding again with flood damages in

the millions of dollars to the retail shopping center. After many meetings and discussions with the town and others, it was decided to improve the culvert with a reinforced concrete bottom. Entrance and outlet headwalls and wingwalls were included. Other significant improvements included utility upgrades and relocation, internal drainage, parking lot reconfiguration and landscaping. To top it off, engineering design for dry floodproofing two buildings was necessary.

This unexpected design requirement had to be addressed. The problems associated with the flooding and the flooding potential were many, while the solutions were few. The center is a local hub of retail activity and the owner was interested in maintaining the investment for future growth while upgrading the center at the same time. The 2001 flooding caused major damages to the buildings — and during that same time period the center was under consideration for the overall improvements. The timing was very unfortunate. The owner, forced to change focus and deal directly with the flooding outcomes, used the modern regulations to his advantage for a successful outcome. It reopened as a

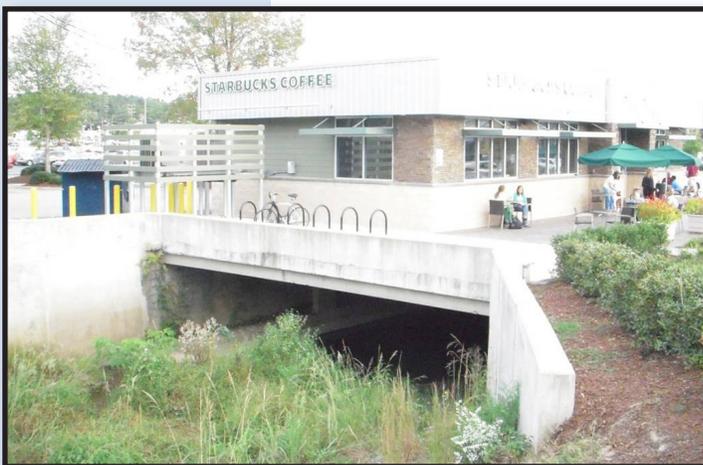
modern, revitalized retail center. One part of the revitalization was the dry floodproofing of two retail buildings. These two buildings were considered as “stand-alone structures” and required improvements greater than fifty percent of their value. In order to meet the modern flood protection standards of the National Flood Insurance Program (NFIP), they had to be wet or dry floodproofed.

Wet floodproofing allows floodwaters into the structure without major damages to the

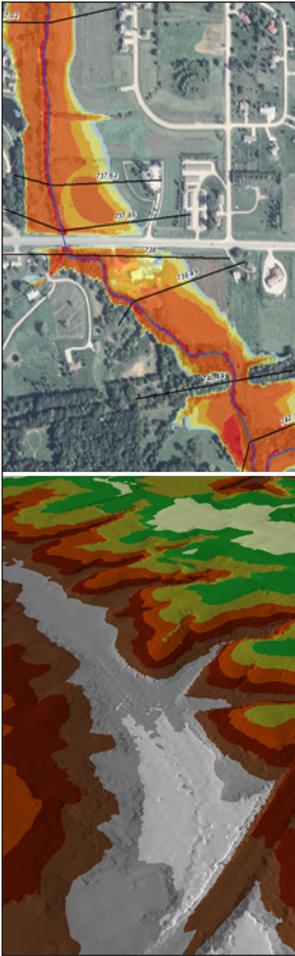
— continued on page 15



Retail structure in existing condition as a two bay garage service station.



Completed retail structure with dry floodproofing.



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URA Rules!!!

M. LYNN GREEN, R. E. BROKER, CFM, SR/WA, R/W-URAC, R/W-NAC, R/W-RAC
DIRECTOR OF ACQUISITION SERVICES, THC, INC.

When you make an agreement with a neighbor to buy or sell property, you must never take advantage of each other. — Leviticus 25:14

It has been determined by Biblical scholars and historians that the book of Leviticus was written between the years of 1445 and 1444 B.C. The instruction was clear and precise – treat each other fair and equitably. Approximately 3,400 years later, in the late 1960s, the United States federal government began to develop guidelines for treating people fairly when purchasing land with federal funds. As a result of many years of analysis and research, the Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970 (The Uniform Act or URA) was enacted. Title 49 of the Code of Federal Regulations (CFR) Part 24 implements the Uniform Act, as amended, 42 U.S.C. 4601 et seq.

The “Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970” (Uniform Act or URA), signed into law on January 2, 1971, provides important protections and assistance for people affected by Federally funded projects. This law was enacted by Congress to ensure that people whose real property is acquired, or who move as a result of projects receiving Federal funds, will be treated fairly and equitably and will receive assistance in moving from the property they occupy.

The objectives of the Uniform Act are:

- Provide uniform, fair and equitable treatment of persons whose real property is acquired or who are displaced in connection with federally funded projects,
- Ensure relocation assistance is provided to displaced persons to lessen the emotional and financial impact of displacement,
- Ensure that no individual or family is displaced unless decent, safe and sanitary (DSS) housing is available within the displaced person’s financial means,
- Help improve the housing conditions of displaced persons living in sub-standard housing, and
- Encourage and expedite acquisition by agreement and without coercion.

Federal Agencies Affected

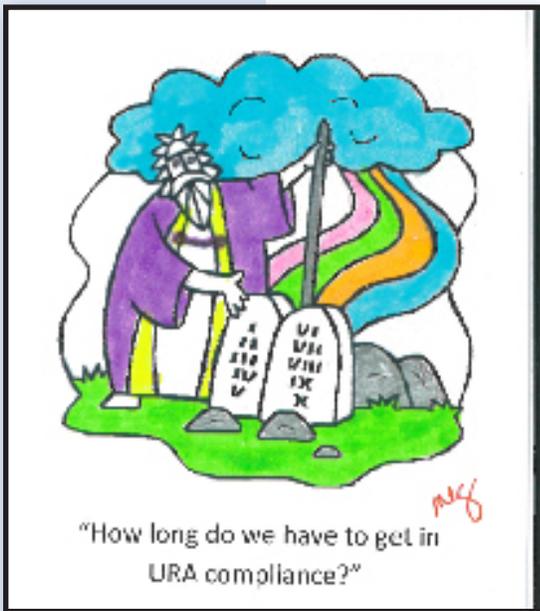
The Uniform Act applies to all acquisitions of real property or displacements of persons resulting from Federal or federally-assisted programs or projects and affects these 18 Federal Agencies:

1. US Department of Agriculture (USDA)
2. US Department of Commerce (USDC or DOC)
3. US Department of Defense (DOD) (includes the US Army Corps of Engineers)
4. US Department of Education (USDE)
5. US Department of Energy (DOE)
6. US Department of Interior (DOI)
7. US Department of Justice (DOJ)
8. US Department of Labor (DOL)
9. US Department of Health and Human Services (DHHS)
10. General Services Administration (GSA)
11. National Aeronautics and Space Administration (NASA)
12. Environmental Protection Agency (EPA)
13. US Department of Veterans Affairs (VA)
14. Pennsylvania Avenue Development Corporation (PADC) (terminated on April 1, 1996)

URA, from page 11

- 15. Tennessee Valley Authority (TVA)
- 16. US Department of Transportation (USDOT) (includes FHWA, FAA, FTA)
- 17. US Department of Homeland Security (DHS) (includes FEMA, Coast Guard, TSA, and others)
- 18. US Department of Housing and Urban Development (HUD)

On April 2, 1987, Congress passed The Surface Transportation and Uniform Relocation Assistance Act of 1987 (Pub. L. 100-17), thereby amending the URA and subsequently confirming the USDOT as the Lead Agency for acquisition and relocation projects.



So how does the URA apply to the floodplain?

The Federal Emergency Management Administration (FEMA), implements the URA as it pertains to the rules and regulations of a voluntary transaction. Only in rare occasions are floodplain properties acquired under a non-voluntary program. Non-voluntary programs carry the threat of the eminent domain process. The URA rules are typically the same but they differ in the Agency requirements for matching funds (75/25%) and relocation is only available for eligible tenants; not owner occupants. Floodplain buyouts are to assist the property owner out of a repetitive loss situation. These are voluntary transactions which mean there is no relocation benefits provided to the property owner. However, tenants who occupy the acquired property are eligible for relocation benefits.

Even though the URA is a federal law with many guidelines, and an additional order, written to provide clarity and definition for various acquisition and relocation scenarios, it is written in a manner that allows sponsors flexibility in negotiations with property owners in an attempt to reach amicable agreements.

This flexibility allows the sponsor to be creative in problem solving and developing inventive solutions. Creativity and utilization of this built-in flexibility is one area that measures the value of the sponsor and/or their consultant. The most valuable consultants understand where the flexibility is within the law and know how to use it to reach amicable settlements and still guarantee a sponsor that their actions are defensible within the law. Most importantly, the top consultants can implement the acquisition and relocation program in this manner and withstand the purview of an audit, thus guaranteeing the sponsor that their grant monies are safe and fully refundable with their funding sources (FEMA for flood relief projects).

The URA can be a very daunting document and process to follow. There are many sub-documents to assist in the understanding of the implementation process. The consultant must understand the rights of the participating property owners and tenants, understand the governing regulations, and understand how to bridge any gaps in reaching settlements for targeted properties, all the while assuring the sponsor of fully allowable procedures and practices. In the end, most decisions boil down to common sense and treating people fairly, just as God directed Moses approximately 3,400 years ago. Moses was certainly a wise and good listener. Are we? ▲

Prepare NC Residents for Spring Flooding by Promoting Flood Insurance



Spring Flood Risks

As a floodplain manager, you play an important role in helping protect home and business owners and their property from the dangers of flood. With spring just around the corner, residents in your community should be reminded that the season brings rapid snowmelt, severe storms, and heavy rainfall to areas across the country, increasing the likelihood of flooding. You don't need to live or work along a river to be at risk given that small creek flooding or localized flash flooding are quite common. And for those near a body of water, it only takes a steady rain to overflow the banks of rivers, lakes, and streams, affecting communities in inland states across the country.

Floods are the nation's leading natural disaster. Damage from flooding affects thousands of homes every year, and in many communities the risk is heightened during the spring due to melting snow, heavy rains and weakening levees. Just inches of water can cause tens of thousands of dollars in damages. Without the financial protection that flood insurance provides, property owners may have to absorb the financial losses on their own or seek limited funding from other sources.

Now is the time to remind home and business owners in your area that the only protection against costly flood damage is flood insurance. Flood damage is not typically covered by homeowners insurance. Only a flood insurance policy will protect from costly flood damage so encourage home and business owners in your area to purchase a policy now - **there is typically a 30-day waiting period before the policy becomes effective.**

Add the FloodSmart website (www.FloodSmart.gov) to your community's website. Then encourage your community members to visit the site to learn how to prepare for floods, purchase a flood insurance policy, locate an agent, and what the benefits are of protecting homes and property against flooding. ▲



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Dewberry has held to a few **time tested** principles that have served us well:

Our clients are Priority #1 - We thrive on turning **our clients' wishes** and dreams into reality. It's what gets us up in the morning . . . and keeps us working late into the night.

Partnership - from **start to finish**. Our commitment to teamwork extends to our clients. We believe that every successful project is also a successful partnership. When our **clients talk, we listen**. And we keep listening every step of the way.

Excellence - Nothing short of superb satisfies us. We aspire to the **accuracy** of a fine Swiss watch ; the **speed** of an Italian race car; and the **dependability** of sunrise and sunset. Our word is our bond. In short, we demand the best of ourselves.

Value - Lower design fees because of our **efficiency and low overhead**; more bang for the buck in problem-solving, in project management and team communications, and above all, in evaluating our own abilities and performance.

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If you would like to schedule a full presentation on the significant changes made to FEMA's new Technical Bulletin TB-1 please contact me at 910-279-1222. Thanks Paul Abrams.



www.smartvent.com • 877-441-8368

Dry Floodproofing, from page 9

structure by using proper materials and construction methods. This concept did not resonate very well with the owner nor did it appeal to prospective retail tenants. Therefore, other than demolition, the only solution remaining was dry floodproofing.



Top: Interior of impermeable, structural wall. Note height of electrical boxes.

Bottom: Interior of impermeable, structural wall. Note height of window openings.

Dry floodproofing is designed so that up to a certain level, the walls are substantially impermeable to the passage of water. Structural components having the capability of resisting hydrostatic and hydrodynamic loads and effects of buoyancy must be included. The methods used can be found in FEMA *Guidance Bulletin 3-93: Non-residential Floodproofing*.

Dry floodproofing requires rigorous attention to structural detail, administration of the project and mounds of paperwork. It also requires significant follow-through with the owner and retail tenant on an annual basis, including training, inspections and reporting. The successful implementation of this dry floodproofing project proves that modern NFIP regulations can be adhered to while businesses can profit and achieve their goals successfully.

Does dry floodproofing make dollars and sense? It certainly does. The owner and tenants are operating at a profit, the improvements to the center are functioning well, and the health, safety and general welfare of the public is being achieved and maintained. ▲

REPORT**L-273: Managing Floodplain Development through the NFIP**

NCDEM, FEMA Region IV, and NCAFPM recently offered this field deployed EMI course at Morganton, NC. Western Piedmont Community College was the site of the 4 day course, February 28th – March 3rd. The course was followed by the administration of the CFM exam on March 4th.

The course was designed to provide an organized training opportunity for local officials responsible for administering their local floodplain management ordinance. The course focused on the NFIP and concepts of floodplain management, maps and studies, ordinance administration, and the relationship between floodplain management and flood insurance.

Class size was 32 and 18 people took the CFM exam on Friday. Course instructors were Timothy P. Russo, CFM, Natural Hazards Program Specialist, FEMA Region IV; Randy Mundt, AICP, CFM, Outreach Coordinator, NC Division of Emergency Management; and Steve Garrett, CFM, LOMC Manager, NC Division of Emergency Management. ▲

Conferences & Annual Meetings



**May 15-20, 2011
Louisville, KY**

www.floods.org

“Flood Risk Management: The Winning Ticket”

Association of State Floodplain Managers Conference

Early Registration Discount deadline is April 2!

May 15-20 marks the date of this year’s ASFPM National Conference to be held in Louisville, KY. Borrowing from a Kentucky Derby theme, the conference is aptly named, “Flood Risk Management: The Winning Ticket.”

The national conference is the world’s largest and most comprehensive floodplain management conference and will feature a week of plenary and concurrent sessions covering techniques, programs, and resources to accomplish flood mitigation, watershed management, and other community goals. Field trips and training workshops will provide in depth exploration of practical situations. The networking opportunities with professional peers from around the country are numerous, lively, and always well attended.

Future national conferences are slated for San Antonio 2012, Hartford 2013, Seattle 2014, and Atlanta 2015, making this year’s conference the closest to North Carolina until 2015.

APWA-NC Water Resources Conference

Issues and concerns related to water quality and stormwater continue to play a significant role in the way we do business, shaping technical focus and policy throughout government and private industry. Join us as we once again provide a variety of learning opportunities in a fun and friendly atmosphere.

“Engineering for Ecosystem Services”

American Ecological Engineering Society Annual Meeting

The NC State University Department of Biological & Agricultural Engineering will host the 11th Annual American Ecological Engineering Society (AEES) Meeting, focusing on ecological engineering applications in environmental restoration, wastewater and stormwater treatment, renewable energy, climate change adaptation, and sustainable food systems. The program will include invited speakers, roundtable discussions on emerging issues, posters and exhibits, field trips, and networking opportunities. For more information, contact Greg Jennings at (919) 606-4790 or jenningsenv@gmail.com, or go online to www.bae.ncsu.edu/workshops/aees.

“New Water Quality Regulations – Change is in the Air!”

Southeast Stormwater Association’s Annual Conference

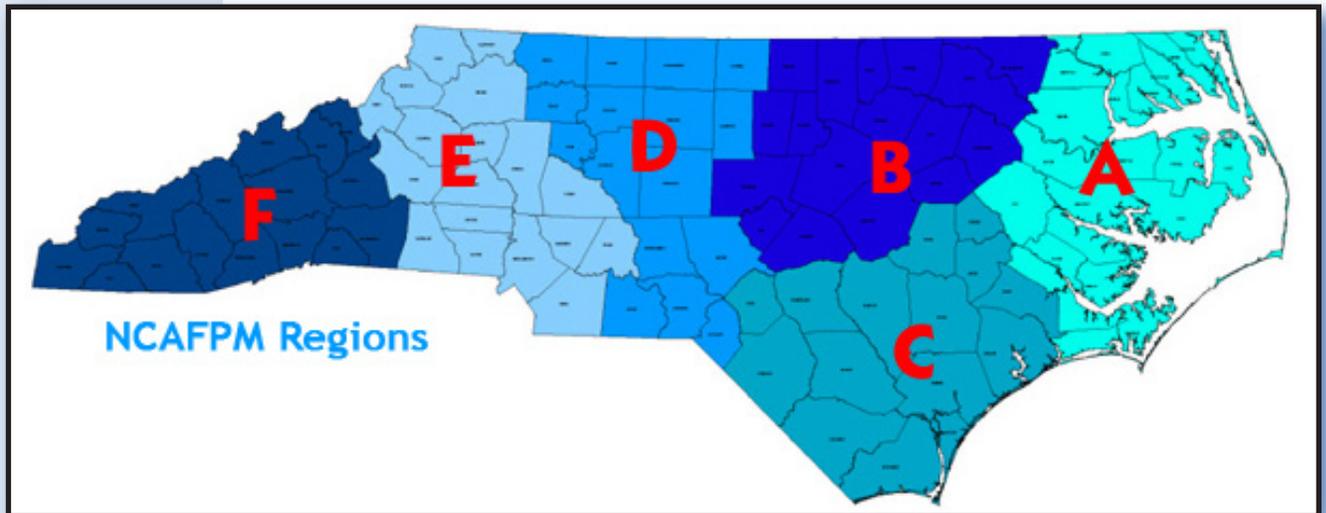
SESWA’s sixth Annual Conference will provide innovative solutions to many of the complex challenges in stormwater management. Tracks include water quality case studies, stormwater program management, regulations and permit policies, and TMDLs. For more information and to register, go to www.seswa.org.

**APWA-NC
Annual
Conference**
**Sept. 12-13
Wilmington**

**AEES
Annual
Meeting**
**May 23-25
Asheville, NC**

**SESWA
Annual
Conference**
**October 3-5
Asheville, NC**

NCAFPM Regional Reports



Region B

Heather Keefer, CFM

USGS Responds to Fall 2010 Flooding

Heavy rains over the period September 26 – October 1, 2010 caused many central and eastern rivers to reach or exceed flood stage. The National Weather Service recorded rainfall totals in excess of 20 inches at some sites. The USGS Staff of the NC Water Science Center responded to this event by ramping up their rainfall and river stage measurements. In addition to ensuring that all USGS real-time gages were operational, the USGS made more than 40 streamflow measurements at stream gages in central and eastern North Carolina. The purpose was to convey critical information to the public and emergency response officials during and immediately after the event. But the results will also be used to update and verify site-specific relationships between river stage and streamflow. This information can be used in issuing flood warnings, mapping floodplains, monitoring water quality and environmental conditions, and managing water resources.

Region D

Annette Liggett-Lineberger, CFM

Davidson Farmer Says Yadkin River Floods are Good for Crops

After the Yadkin River flood of March 8, 2011, Davidson farmer Eddie Green was interviewed by WXII TV in a video available on YouTube. The river had crested at 16 feet, 10 feet higher than normal in the area. But Green noted that another 3 to 4 feet wouldn't be a bad thing, as it puts more water in the ground for the summer and deposits silt on the land. He said floodwater won't hurt the grains he harvests on his farm but would be a concern if he had crops like corn, beans, or tobacco.

Small Earthquake Rattles Anson and Chesterfield (SC) Counties

A 2.9-magnitude earthquake struck near the South Carolina border just after 6 p.m. on March 21, 2011. Callers to 911 in Anson County, NC, and Chesterfield, SC, reported hearing the noise and feeling the ground shake but no damage or injury reports. Anson County Emergency Services Chief Rodney Diggs said that they received about a dozen calls. The South Carolina Seismic Network reported five other earthquakes of magnitude 2.0 or greater in South Carolina over the past two years.

Education & Training



Workshops

LID FastTrack Certification

- July 26-28
Chowan County Agricultural Ctr
Edenton, NC

LID & Neighborhood Development

- May 17
NCSU Main Campus
Raleigh, NC
- August (date TBA)
Gaston County Extension
Dallas, NC

RG 101 – Rain Garden Design

- April 24 (Oak Ridge, NC)
- May 2 (Hillsborough, NC)
- May 3 (Wilmington, NC)
- May 20 (Boone, NC)

RG 201 – Rain Garden Certification

- April 26-27 (Oak Ridge, NC)

Stormwater Wetland Design

- June 7
NCSU Centennial Campus
Raleigh, NC
- June 9
Caldwell County Extension
Lenoir, NC

Stormwater Harvesting

- April 17 & 21
Raleigh & Charlotte, NC

For a complete list of workshops offered by NCSU-BAE and to register online, please go to www.bae.ncsu.edu and click on Training & Credit

Low Impact Development

LID FastTrack Certification: Introduction to LID/LEED AND Integrating LID, LEED and Policy

The LID (Low Impact Development) FASTTRACK Certification option is the Introductory and Policy required courses combined in a three-day workshop. You can also take the Intro or Policy courses separately. The introduction course includes the basic principles of LID (Low Impact Development) and LEED (Leadership in Energy and Environmental Design). The policy course addresses LID in the context of policy and other challenges when preparing for LID projects.

LID & Traditional Neighborhood Development

There has been concern that LID and New Urbanist have some incompatibilities to the extent that LID supersedes traditional neighborhood design and place-making principles. This course aims to bridge the gap between efficient and effective implementation of LID and Light Imprint.

Rain Gardens

RG 101: Residential Rain Garden Design for Homeowners

This is a *new* workshop developed just for homeowners, master gardeners and other non-professionals and does NOT include a certification. Rain gardens are shallow depressions and serve as landscape features that can effectively collect and treat stormwater and reduce localized flooding. This 1-day workshop will present a method for sizing and designing rain gardens and detail proper construction techniques.

RG 201: Residential Rain Garden Certification for Professionals (Formally “Rain Garden Certification Workshop”)

This 1½ day workshop will present a simple method for sizing and designing rain gardens and detail proper construction techniques. Participants will design and install a rain garden as part of the training. After the training, participants will be eligible to take a test to be certified in rain garden design and construction.

Stormwater Wetland Design

Constructed stormwater wetlands are an integral practice associated with stormwater management. These stormwater control measures (or BMPs) have been shown to outperform most practices to remove pollutants and hold the best potential to provide other important services such as carbon sequestration and air quality improvement. This training will focus on new information regarding stormwater wetlands. Topics to be discussed for the first time are designing wetlands to store carbon, establishing nutrient removal benchmarks to meet watershed rules, and navi-

Education & Training (continued)

gating the permit process. This class is intended for those with experience in stormwater management practice design, review, and supervision. A field tour to visit constructed stormwater wetlands incorporating many of the newest design features is included.

From Rainwater Harvesting to Stormwater Harvesting

The practice of rainwater harvesting is quite advanced in Australia and New Zealand compared to what it is in the Southeast USA. Australians have been driven by extreme drought to supplement drinking water supplies with harvested rainwater. In much of New Zealand, infrastructure does not exist for water supply other than that which delivers harvested rainwater. Rainwater harvesting has morphed into stormwater harvesting, particularly in Queensland, Australia. The purpose of this full-day training is to provide insight into the Australasian experience and discuss its application in North Carolina and the Southeast.



For more information about the Water Resources Research Institute (WRRI) of The University of North Carolina, go to www.ncsu.edu/wrri

Division of Water Quality

Riparian Buffers and Coastal Stormwater Workshop

May 9, 9:30am-3:30pm, New Bern Convention Center

These workshops were developed to educate design professionals on North Carolina's stormwater programs and its stream, wetland and riparian buffer rules. Attendees will learn about pertinent regulations, application processes and program updates directly from Division of Water Quality staff. Questions? Contact WRRI at (919) 515-2815 or water_resources@ncsu.edu.

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Calendar

April 12-15, 2011
NCAFP/ SCAHM JOINT ANNUAL CONFERENCE
Sheraton Hotel
North Charleston, SC
www.ncafp.org

May 15-20, 2011
ASSOCIATION OF STATE FLOODPLAIN MANAGERS ANNUAL CONFERENCE
Louisville, KY
www.floods.org

September 12-13, 2011
APWA NC CHAPTER WATER RESOURCES CONFERENCE
Wilmington, NC

October 3-5, 2011
SOUTHEAST STORMWATER ASSOCIATION ANNUAL CONFERENCE
Renaissance Asheville Hotel
Asheville, NC
www.SESWA.org

Floodplain Management

Technical Assistance (FEMA)

National Flood Insurance Program

FEMA Region IV
Floodplain Management Specialist
Bob Durrin, CFM 770-220-5428

FEMA Region IV Outreach Specialist
J.P. Maier 770-220-5358

Floodplain Management and Insurance Branch

Branch Chief
Susan Wilson, CFM 770-220-5414

LOMA/LOMR/No-Rise

Mohammed Waliullah..... 770-220-5493

Individual Lot LOMA/LOMR

FEMA LOMA DEPOT
3601 Eisenhower Avenue
Alexandria, VA 22304-6425
Attn: LOMA Manager

Flood Insurance Policy Issues

Regional Manager
Lynne Magel 813-788-2624

Regional Liaison
David Clukie 813-767-5355

Websites

NCAFP..... www.ncafp.org
ASFPM www.floods.org
FEMA www.fema.gov
NFIP www.floodsmart.gov
NCEM www.nccrimecontrol.org/nfip
NC Maps www.ncfloodmaps.com

Resources

Technical Assistance (State)

NC Emergency Mgmt

National Flood Insurance Program

John Gerber, PE, CFM
NFIP State Coordinator
919-715-5711 x 106

NC CLOMR / LOMR Submittals

Steve Garrett, CFM
919-715-5711 ext 118
www.ncfloodmaps.com/mt-2_forms.htm

Meck. Co. CLOMR/LOMR Submittals

David C. Love, PE, CFM
704-432-0006

NFIP Planners

Central Area
Milton Carpenter, CFM 919-715-5711 x103

Eastern Area
Randy Mundt, AICP, CFM 919-715-5711 x119

Western Area
Terry Foxx 828-228-8526

Engineering Assistance
VACANT. Coordinate with
Tom Langan, PE, CFM 919-715-5711 x109

Hazard Mitigation Grant Program & Flood Mitigation Assistance Prog

Chris Crew, Mitigation Section Chief
919-715-8000 x277

Maps & Flood Insurance Studies

FEMA Map Information eXchange (FMIX)

1-877-336-2627 (1-877-FEMA-MAP).

NC Floodplain Mapping Program

919-715-5711
www.ncfloodmaps.com

FlashFlood NEWS is a semi-annual publication which offers information and education on topics that are of current interest in the field of floodplain management and the National Flood Insurance Program.

Information and opinions do not necessarily reflect the views of the North Carolina Association of Floodplain Managers.

All inquiries and article ideas should be directed to: Kelly Keesling, Editor (704-451-3823 or kgkeesling@carolina.rr.com)

For more information about the North Carolina Association of Floodplain Managers, see our website at www.ncafp.org.

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For more information about becoming a member of NCAFP or for a membership application, go to www.ncafp.org.



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