



# The Antediluvian

## Ohio's Floodplain Management Newsletter

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**MISSION STATEMENT:** The Mission of Floodplain Management Program is to provide leadership to local governments, state agencies, and interested parties toward cooperative management of Ohio's floodplains to support the reduction of flood damage and the recognition of the floodplain's natural benefit. This mission will be accomplished through technical assistance, public awareness, education, and development/protection standards.

### What We've Been Up To What We Have Planned!



By Cynthia J. Crecelius, Supervisor  
Division of Water – Floodplain Management Program

The Floodplain Management Program staff has been challenged with *keeping our heads above water* literally as we respond to the fourth Presidentially Declared Disaster for flooding in a twenty-month period. This round of problems began with the August 1995 event which impacted eleven counties, followed by the January 1996 flood affecting 13 counties, the May 1996 flood affecting a total of 14 counties (11 of which were impacted by the January event), and the March 1997 flood resulting in 18 declared counties. The last three of these events were concentrated in the Ohio River basin and its tributary areas. The March 1997 event approached a 50-year occurrence level for many Ohio River communities and is estimated to be greater than a 100-year occurrence for many of the adjoining smaller watersheds.

The silver lining behind the storm clouds causing all our flooding is that we have had several opportunities to apply new and creative mitigation strategies. Information provided through the State of Ohio Rain/Snow Monitoring System (STORMS) allowed for more accurate and timely warnings. STORMS will be a statewide system that compiles data received by radio from remote rain gauges, calculates the impact of rain run-off on streams and rivers, and forwards information to the National Weather Service for use in watches and warnings. Portions of STORMS have been funded through the Hazard

Mitigation Grant Program and coverage was designed to supplement the larger stream and river monitoring system to help mitigate flood damage in small basins and in flash flood situations.

Following the March 1997 flood the Division of Water staff implemented a proactive flood response role and conducted NFIP briefings with 12 counties providing technical assistance to over 50 NFIP communities within 15 days of the disaster declaration. Our focus was to support the local floodplain admini-

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strator in meeting NFIP responsibilities. Substantial damage determinations and permit process were key items. We learned from our interaction with FEMA during the 1996 flood events that FEMA Region V is placing a much higher priority on community enforcement of their local flood damage reduction standards as criteria for federal assistance programs. State agency staff has been key in coordination with building inspectors and surveyor professional organizations to obtain additional inspection and survey assistance for the most devastated communities to meet their floodplain management responsibilities. Our role in the Emergency Operations Center - including relocation to the Disaster Field Office in Chillicothe - was also expanded to support new mitigation initiatives in partnership with the Ohio Emergency Management Agency.

A key mitigation initiative is the *Smart Recovery* campaign supported by the Governor and Lieutenant Governor. The emphasis of the campaign is to promote the reduced flood risk and long-term recovery of Ohio communities. The audience includes elected and local officials as well as individuals and business owners. Workshops were held in the disaster impacted area, pulling together local, state and federal resources (technical and financial) to assist local officials interested in implementing mitigation strategies.

When the waters have not been rising, we have been busy with several other priority initiatives including outreach and education, building a flood mitigation capability, developing a Geographic Information System, and nurturing our partnerships with sister agencies and the Ohio Floodplain Management Association. Several staff members participated in multi-objective work groups, quality teams and land-use initiatives to promote floodplain management strategies. We have participated in cross training and provided floodplain management information at several emergency management professional development classes. We have provided review and comment for the development of the state hazard mitigation plan and are key members of the team developing and selecting Hazard Mitigation Grant Program projects and will be the technical support for the administration of the new Flood Mitigation Assistance Program. (The Hazard Mitigation Grant Program and

the Flood Mitigation Assistance Program are federal programs designed to provide assistance for the implementation of long-term damage reduction strategies. The Flood Mitigation Assistance Program is unique to flood damage reduction as the name implies.)

[See *Flood Mitigation Assistance Program* article page 9.]

We realized several years ago that we needed to utilize the new technologies for management and distribution of the flood hazard information we collect. What we did not realize was the depth of that undertaking and time required. We have chosen a consultant to assist us with the conceptual design of a Floodplain Management Geographic Information System to accomplish our objective of better retrieval and dissemination of flood hazard information. We also have identified a priority application to support risk assessment to determine the number of structures in the flood hazard areas of the state. The priority of technical assistance to the flood impacted communities and NFIP compliance issues have kept us from making progress on the application; however, it is still a priority for the coming year.

As for the future, we are about to launch a major strategic planning effort both within the Department and in our partnership plan with FEMA. The Floodplain Management Program staff hopes to establish a state program identity separate from our continued participation in the accomplishment of FEMA objectives. One goal includes promulgation of administrative rules to support our legislation of 1992. We hope to develop a new workshop to address the substantial damage determinations required in post-disaster recovery efforts. We have plans to continue the refinement of our current Flood Loss Reduction Workshop presentations, facilitate an interactive exercise on flood mitigation and recovery with a local government, and cooperate with Ohio Floodplain Management Association to offer a statewide floodplain manager's conference in 1998!

We are truly appreciative of the comments and feedback we receive from all of you. We will continue to direct our efforts and initiatives at addressing the concerns you have. Please let us know when we are on the right track and when more attention is needed on overlooked issues.



## A Partnership for the Future

By Cynthia J. Crecelius, Supervisor

Division of Water - Floodplain Management Program

In another article within this newsletter, I encouraged Ohio's floodplain management professionals to become aware of the national Association of State Floodplain Managers. I realize that not everyone likes to dive into the unknown; many prefer to wade or *test the waters* first. If the national policy forum seems like more than you want to tackle, try your hand at the state level first. I offer an invitation to join the OHIO FLOODPLAIN MANAGEMENT ASSOCIATION!!!!

The Ohio Floodplain Management Association (OFMA) was formed in 1995 by professionals' interested in and responsible for floodplain management in the State of Ohio. The newly created organization offers an opportunity for increased public awareness of floodplain management; a forum for personal and professional growth in the field; a means to facilitate the cooperation and exchange of information among those who affect floodplain management practice and policy; a way to encourage and support research and legislation pertinent to effective implementation of floodplain management; and a medium to provide education and training opportunities.

OFMA is in partnership with the established Water Management Association of Ohio (WMAO) whose purpose is *To promote and support the development, conservation, control, protection, and utilization of Ohio's water resources for all beneficial purposes.* Membership in WMAO provides benefits such as a membership roster for contacts and networking, quarterly newsletters, two annual conference opportunities, and technical/ educational seminars and workshops as requested. Similar to the national ASFPM, the annual individual membership fee of \$55.00 is very reasonable. WMAO currently has 260 members with nearly 70 indicating interest in the OFMA subgroup. That is 28% of the membership with an expressed interest in floodplain management.

Based upon the trends, experiences and vision of

where floodplain management needs to go in the coming years, the association of OFMA with an organization that supports the holistic approach to watershed planning and management will be beneficial. The 26th Annual conference of the Water Management Association of Ohio will be held in Worthington, Ohio on November 19-20, 1997. Elections for new officers of the OFMA will occur. The positions of Chair, Vice-Chair, and Secretary/Treasurer are all open for nomination. If you are interested or if you know someone who would be an excellent representative, please notify Kari Echard, Licking County Planning Commission before October 30. Kari can be reached at (614) 349-6555. Mark your calendars and contact either Kari or Carol Moody at the Water Management Association of Ohio (614) 292-6108 for membership information! 



In 1682, John, the first Duke of Lauderdale was laid to rest in the family mausoleum at St. Mary's Church in Haddington, Scotland. Yet it was widely rumored that he was not resting well for each time the burial vault was unlocked to inter another family member, the coffins had moved. This caused quite a stir above ground until it was realized that the mausoleum was in the floodplain of the River Tyne. As the seasonal floodwaters filled the vault the coffins would float about. Another testimonial for anchoring floodplain developments. 

FOR ANSWERS TO  
FLOOD INSURANCE QUESTIONS  
CALL  
**1-800-638-6620**

## A View from New Richmond

By David Kennedy, Floodplain Administrator  
Village of New Richmond

The March flooding was obviously a very devastating event affecting numerous residents throughout the State of Ohio. I am the Village/Floodplain Administrator for the Village of New Richmond, a small community along the Ohio River, just east of Cincinnati. As such, I had the task of damage assessment immediately following the retreat of the flood waters. Let me begin by stating this was like no other task I have ever experienced or ever hope to experience again.

With 550 of its 800 households within the 100-year floodplain, the village has always enforced its floodplain regulations. New residences are elevated, commercial buildings are floodproofed, and generally we like to consider ourselves a community in good standing with the National Flood Insurance Program (NFIP). This unfortunately does not prepare any community to deal with waters rising faster than one foot an hour.

The flood placed water on approximately 500 homes within the village, 150 of which are mobile homes, with some homes having close to eight feet of water on their first floor. The job of deciding which homes can be rebuilt and which must be removed or elevated was quite an undertaking. No matter your effort or desire for consistency, this is not a popular position. With a small community such as New Richmond, many of these residents are friends and co-workers, whose lives have been turned upside down by the flood. Imagine showing up at the house of a local fire fighter, who unselfishly helped residents throughout the community evacuate from their homes during the flood, and informing him that he may not be able to move back in because his home may be damaged beyond 50% of its value.

It sounds simple enough; if flood damage is greater than 50% of the value of the structure, the home must be elevated or removed. It is not that simple! The following are some ideas that you may want to consider in formulating a plan for how your community will deal with this portion of your floodplain regulation enforcements.

### PUBLIC AWARENESS

The first factor which caused considerable heartache in our community was that many residents were simply not aware of the need for a substantial damage inspection before they could begin rebuilding. The current floodplain regulations were not in place during the comparable flood of 1964 and substantial damage inspections were not completed by the village during a smaller flood of January 1996. Unfortunately, many community leaders also were not aware of this requirement, adding to the confusion and anger that literally engulfed our village.

Floodplain ordinances are often the least read regulations by residents, although they may have the most authoritative effect on their property. Residents should continually be made aware of the need for substantial damage inspections following flood (or even non-flood) related structural damage. Newsletters, annual public hearings, and complete post-flood substantial damage inspections will go a long way in preparing citizens and government leaders for the requirements of this task. Other issues - such as how historic structures will be treated and whether zoning may factor into the process - must be discussed. During non-flood times, substantial damage assessment can be strengthened through the enforcement of your floodplain regulation's requirement to flood-protect a pre-FIRM<sup>1</sup> structure improved greater than 50% of its value (substantial improvement).

### DAMAGE VALUE

Many of our residents disagreed with the inclusion of items the NFIP considered structural, such as cabinets and carpeting. Residents must be made aware of these details prior to a flood. Adding to the confusion, I was not totally clear - in the early stages - which items were considered structural. In an effort to move quickly following the flood, I issued permits

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<sup>1</sup> Pre-FIRM: Built before the date of the initial *Flood Insurance Rate Map* (FIRM) for the area of the structure.

# Spring Flood



## A View from Clermont County

By Ray Sebastian, Floodplain Administrator  
Clermont County

In early March severe flooding was experienced all along the Ohio River Valley. Clermont County was one of the areas affected by this flooding. This event was three (3) to four (4) feet below the 100 year (base flood) elevation. When the county knew that flooding was imminent, our Emergency Operations Center was activated. The Building Inspections Department serves as the agency that does not only the inspections related to building, electrical, mechanical, and fire, but also those inspections related to Floodplain Administration. When the river crested and started to recede, our primary role began.

Our inspectors teamed with the inspectors from the utility company and followed the water down. Our mission at that point was to determine if flooded buildings and structures were structurally sound and if the electric was safe to be re-energized. A preliminary assessment as to the extent of damage was also done at this point in time. Although FEMA and the Red Cross had been represented at some meetings early on at the EOC, there were no directions or concerns about what we were doing at this point in time. There was some discussion about substantial damage determination as it related to mobile homes. The first *rule* was that, if the mobile home had water on the floor it automatically had sustained substantial damage and was to be condemned. That *rule* was immediately reversed and we were told to make the determination on the 50% basis as we were on all other structures. Although frustrated that the *rule* had changed, literally overnight, this turned out to be only a very minor inconsistency that occurred during the event.

Two to three days after the water started to go down, the county had a tremendous amount of *help* from various agencies, both from the State and the Federal governments. Some of this *help* was very good and much valuable information was obtained.

Some of the *help* created havoc, both to this

department and to the citizens of the communities.

- The OEMA presence was appreciated. They were actively involved throughout the event and proved to be a valuable resource to the county. They established and maintained a line of communication and coordination through our EOC
- The ODNR gave a very timely, short and sweet *seminar* about the regulations which proved to be timely and informative, answering many questions we had concerning the role of the floodplain administrators during and after the event. They too were available throughout the event to answer questions and provide information when needed.
- The FEMA people assigned to give out information in the centers were very good. Again a valuable resource when needed.
- The FEMA contract inspectors started appearing three to four days later. This started a series of events and contradictions that continue today. FEMA inspectors were going behind our inspectors telling people who had moved back into their homes that the homes were *uninhabitable*. This was stopped after the damage was done. Different inspectors were sent to do something -this floodplain administrator still is not sure what - because the determinations, lists, or whatever is a secret, not to be shared with the local authorities who have to live in the community long after these inspectors have left. There was no effort made on the part of FEMA inspectors to communicate with our local inspectors or coordinate efforts in any manner.
- The Red Cross effort was tremendous: however, the numbers generated by their assessments, for their purposes were not consistent with ours. Unfortunately we were looking for people who were displaced according to numbers given to us that we simply could not find. Again the definitive information as to whom these people were, where they were, *etc.* was a secret.

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based on calculations that did not include elements that I later found needed to be included.

Generally, there are two methods<sup>2</sup> for determining the damage following a flood: using local inspectors or using contractors' estimates. Either way, the determination of damage must be done in a planned out, consistent manner. Making sure that you are aware of the requirements ahead of time and not changing as you go along will be your only hope for credibility. If the damage figure is to be based solely upon inspections make sure that proper training is completed by inspectors and that you have adequate manpower to complete the inspections for all levels of flooding. Remember that flood recovery requires an incredible amount of work over and above completing substantial damage inspections. This process needs to be completed quickly. Delays only added to the frustrations within the village, causing many residents to feel justification in beginning renovation prior to receiving inspections. Plan for the worse case scenarios within your community and think of which agencies can be involved to assist in these inspections. Our County Building Officials offered assistance in making these determinations immediately following the flood. The decision to handle the inspections locally was clearly a mistake on our part. Switching to outside contracted building inspectors to complete the inspections appeared to offer the village consistency, although, unfortunately, it was not timely and today some residents still have not received their inspection results.

If the use of contractor/builders' estimates (confirmed by inspections) is chosen, a standard set of procedures must be followed and detailed forms<sup>3</sup> (including labor costs) should be used. These procedures and forms must be given to your citizens and their contractors. Your community must use one method or the other, because they differ greatly and using both will lead to inconsistencies.

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<sup>2</sup> Although a flood insurance claim will give detailed damage figures in relation to the value of the home, you are not likely to see these figures

<sup>3</sup> These forms, that are available from both the State and Federal Emergency Management Agencies, will be helpful to review before flooding occurs.

## STRUCTURAL VALUE

As we continued to sort out how we would evaluate damage, the need to place a value on the structures began to surface. Although our County Auditor's Office immediately supplied us with the structural value of each building within the village, two problems immediately occurred. First, mobile homes do not have a structural value within these documents, and second, many residents supplied counter appraisal figures that differed from the County Auditor's figures.

Trying to maintain consistency, the village contracted with an out-of-town appraisal firm to value mobile homes by using the *N.A.D.A. Manufacturing Housing Appraisal Guide*. Residents were asked to supply the village with the make and model of their mobile homes. We quickly found that the citizens did not always give us accurate information. Secondly, as a result of a detailed comparison, the county value for standard residences was increased by 30% to put them in line with most of the appraisal amounts. This solved the problems that arose when two relatively identical homes with equal value were reviewed. One recently financed home was able to submit an appraisal while the other home had to go strictly with the auditor's figure. The appraisals were coming in, on the average, approximately 30% higher than the county figure, thus the increase was made when needed.

Clearly, the County Auditor's figures are the fairest and easiest method to use in the structural valuation of single family residences. During public awareness efforts, residents should be made aware of the value that will be used and given the opportunity to determine its validity. This will also allow the local government the opportunity to determine if there is a need for an adjustment multiplier. The *N.A.D.A. Manufacturing Housing Appraisal Guide* is useful as long as records of each mobile home's make and model are kept and updated so a fair and accurate figure is achieved.

Remember that you may be dealing with citizens who stand to lose all that they own. They will not easily supply you with all that you are asking, especially if they feel someone else was treated differently. In New Richmond's case we were able to offer to the owners of

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## New Richmond

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owners of many of the most damaged homes a possible buy-out.

### Summary

Obviously planning and public awareness are integral in your preparation for damage assessment following any flood. The anger and frustration felt by your residents will be exhibited. Displaying knowledge, consistency, and timeliness - along with respect for the turmoil they are suffering - will help in getting you and your community through the process and onto recovery.

If in the future, you would like to discuss your plans or have any questions at all, please do not hesitate to contact me at New Richmond Village Hall, 102 Willow Street, New Richmond, Ohio 45157, (513) 553-4146. 

To Order

## FLOOD MAPS or Flood Insurance Studies

from the  
Federal Map Distribution  
Center

Call

**1-800-358-9616**

## Clermont County

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- There was also an inspector here from the SBA. He too was doing assessments for yet another purpose.
- Add to the mix the various insurance adjustors and the gentleman from the NFIP program assessing adjustors

Approximately six weeks into the event, FEMA offered *training* to help us determine *substantial damage*. At this point in time we had completed 80 to 85% of our determinations. **TOO LATE!** The ones that were not completed were those that were waiting for estimates if the damage determination made on the initial assessment was greater than 40%. As a result, our information was not on the right forms or in the correct format for their purposes. Now they are making us pay with requests for information in different formats for different people assigned to the area. What is acceptable to one is not acceptable to another.

I feel the effort could have been much better for both the citizens of the county and the government.

- It is imperative that the victims of a disaster are not given contradictory information from various *public officials*. There is absolutely no reason for several different agencies to be doing repetitive and redundant inspections on the same building. Not only is this behavior confusing to the citizens of the community, but it also is an unacceptable waste of our taxpayers' money. If it is necessary for the various agencies to each have an individual do their *assessment*, at a minimum coordinate the effort and let the local officials know what they want and needs are. If the FEMA inspectors were in the same vehicle with our inspectors, like those from the utility, all information could be obtained on the same stop, all questions could be answered, uniformity and consistency would happen by default and the paper work would be in the desired format for the *bean counters* after the event.
- Any necessary *training* must occur immediately. Waiting literally weeks into an event to do *training* is absolutely not acceptable.

We are now signing many forms for loan applicants to receive SBA low interest loans to help recover from this flood that attest we are enforcing earthquake provisions in this county. What's wrong with this picture?

Disaster recovery is a long process. Running into a community and throwing money at the problem is certainly not the answer. I feel a long, hard look must be taken at what we are doing and that necessary adjustments must be made to do the appropriate thing for our citizens and taxpayers. If I sound a little bitter, it's only because I am. We now are in the second week of a tornado that did significant damage to the county. I wonder what the next steps will be in this disaster. 

# A TEAM APPROACH TO FLOOD MANAGEMENT

By Rich Lierly, P.E., Floodplain Manager,  
Contra Costa County Public Work Department  
(reprinted from *Floodlight California Floodplain  
Management Newsletter Volume 11, No.2- 1996*)

**P**icture yourself on the largest river in your jurisdiction, the 100-year flow racing down upon you, you're all alone in a canoe, without a paddle, and your boss says if you don't make it upstream, you're fired! That's how I felt when all the responsibilities of administering the County's Floodplain Management Program came hurtling down on me from on high. Up to that point in my career, I hardly knew what a floodplain was and thought *FIRM* was the title of Jane Fonda's latest workout video! However, after the initial shock wore off, I realized that this flooding river of bureaucratic red tape can be quite navigable with the right approach.

The responsibilities of a Floodplain Management Program fall into three major categories (or functions): **Administration**, **Planning**, and **Construction**. Most communities are too large for any one individual to oversee all three functions successfully. Fortunately, because the major duties are easily separated into these three categories, the program lends itself readily to a team approach. Each member of the Floodplain Management Team should have a well-defined role.

The first team member will represent the **Administrative** function of the Floodplain Management Program. (Here in Contra Costa County, the Public Works Department handles the Administration; you may decide that another department is more appropriate for your community.) Administrative responsibilities include adopting regulations, ensuring compliance with the National Flood Insurance Program, and maintaining records. Fulfilling these responsibilities entails developing a Floodplain Management Ordinance; satisfying the duties of the Floodplain Administrator as specified by the NFIP; maintaining the *Flood Insurance Rate Maps*; maintaining records; filing necessary or optional compliance reports, such as **Community Rating System** applications and reports; providing

relevant floodplain data for other documents, such as the General Plan and Zoning Ordinances; and providing overall coordination with other departments and agencies. Most importantly, the individual representing Floodplain Management Program Administration will chair the Floodplain Management Team and assure cohesiveness in the overall operation of all three categories of the program.

The second team member will represent the **Planning** function of the FPM Program. This individual should work within the Planning Department (or comparable department) to ensure that development within the community complies with the Floodplain Management Ordinance. In addition, this team member coordinates with the Floodplain Manager (Administrator) in setting up new policies and regulations and their interpretation, and in addressing planning situations as they arise. These responsibilities are best handled by someone whose daily work is in the regulation of current development.

The final team member will represent the **Construction** function of the FPM Program. This member is charged with ensuring compliance with the FPM Ordinance in the field. (We have found that our Building Inspection Department is best suited to perform this function). Responsibilities include plan checking for compliance with the FPM Ordinance, field review of new construction, and investigating potential ordinance violations in the field. The Construction function of the FPM Team serves as the eyes and ears for the other two functions.

The first step in developing an FPM Team is to identify the appropriate personnel to perform the responsibilities of each major team function. The easiest trap to fall into at this point is to designate the directors of the appropriate departments as the team members. However, department directors are not often intimately involved in the actual day-to-day work of their departments, and are therefore, not the correct persons for the team. The key in choosing team membership is to pick the management personnel immediately responsible for each of the various duties involved in a successful FPM Program. The team should be kept small, but not so small that team members cannot cover the key functions. (Here in Contra Costa

County, for example, the FPM Team includes three separate individuals from the Building Inspection Department, *e.g.*, one is the manager in charge of plan checking, another is in charge of field inspectors, and the third is in charge of code enforcement and violations investigations).

Once team members are chosen, it is important that each member establish a sense of personal ownership in the FPM Program. It is an important program as it allows the community greater access to federal flood relief funds, it provides access to cheaper flood insurance within the community, and it provides for more reasonable floodplain development. Team members should each be made aware of how their particular function relates to the important goals of the program. Only then will the members feel that they are contributing something valuable to the community and treat team membership as an important part of their jobs.

After the team members have been chosen and understand the importance of their roles in the program, they should have an opportunity to provide input to the FPM Ordinance and any other community floodplain regulations. This should include everything from establishing a fee schedule to establishing methods of enforcement and field inspection. Once the team has successfully developed the FPM Ordinance, regulations and fee schedule, it is imperative that the line of communication and cooperation between the various departments involved in the FPM Program remain open. (Our FPM Team meets monthly to discuss such matters as potential improvements to our program, problems we have had with the program, and examples of the projects that have occurred within the floodplain. These meetings help keep the lines of communication free and clear between our various departments).

By implementing a team approach to Floodplain Management, I believe it is much more likely that a community will be able to administer the program successfully and maintain full compliance with the NFIP with the least amount of confusion and wasted effort. From my own experience with the Program, I believe the team approach is the *only* successful way for a community of any size to implement and operate a Floodplain Management Program.

So, the river that appeared impassible to me, as one person alone, now looks easily navigable to our dedicated and committed team.

[*Floodlight* note: For further information about the Contra Costa County Team Approach to FPM, please contact Rich Lierly, P.E., Floodplain Manager, Contra Costa County Public Works Department, 255 Glacier Drive, Martinez, CA 94553-4897; telephone 510/313-2000; fax 510/313-2333; E-mail: [RLierly@PW.CO.Contra-Costa.CO.US](mailto:RLierly@PW.CO.Contra-Costa.CO.US).]

## Opportunities For Mitigation. Without the Flood



By Cynthia J. Crecelius, Supervisor  
Division of Water - Floodplain Management Program

As part of the *National Flood Insurance Reform Act of 1994*, Congress authorized a new federal grant program to provide financial assistance to states and communities for flood mitigation planning and projects. This type of assistance has previously been available through the Hazard Mitigation Grant Program. The major differences in the Hazard Mitigation Grant Program (HMGP) and the new Flood Mitigation Assistance (FMA) program are that the HMGP was only available after Presidential Disaster Declarations and could be used for mitigation of all hazards. The FMA will be implemented annually and does not require a declaration for eligibility. The FMA will provide assistance to states and communities for activities that will reduce the risk of flood damage to structures insurable under the National Flood Insurance Program (NFIP). FMA is designed to replace the *1362 Real Property Acquisition and Upton-Jones* erosion protection programs. It is broader in purpose and more flexible than the former programs.

The Ohio Emergency Management Agency and Ohio Department of Natural Resources will administer the cost-share program. Federal assistance can provide up to 75% of the cost and the remaining 25% amount must be non-federal funds. The FMA is funded through the National

Flood Insurance Fund. FEMA will allocate the FMA grants annually to states based on the number of NFIP policies in force and the number of repetitive loss structures in each state. The program does set both dollar and frequency limitations on the planning and project grants. Mitigation assistance for project grants during any 5-year period is limited to no more than \$10 million to any state or \$3.3 million to any community. The state plus any community within the state is limited to no more than \$300,000 per year for planning grants. Any single planning grant to a state can be no more than \$150,000 and no more than \$50,000 per community. Planning grants for either the state or community can be no more frequent than one grant per 5-year period.

There will be two types of grants that the communities are eligible for: planning grants - to assist in developing flood mitigation plans, and project grants - to fund eligible mitigation projects. It is important to understand that only communities with approved flood mitigation plans may receive project grants. Guidance on the criteria for the mitigation plan has not been finalized as of print time; however, FEMA recommends a basic planning process including these steps: involve the public; coordinate with all interested agencies and organizations; assess flood hazard and risk; establish floodplain management goals; develop alternative mitigation actions; and adopt the plan. After completion of the basics, a community is expected to commit to implementation and evaluation of the option selected. Communities will submit plans to the Mitigation Branch of the Ohio Emergency Management Agency, which will review for consistency with state goals (currently being developed) and forward the plans to FEMA for approval. FEMA has 120 days for approval or comment on revisions. A community must be an NFIP participant in good standing to be eligible for FMA grants. Suspended communities or communities on Probation from the NFIP are not eligible. Eligible planning grant activities include the development or update of plans by conducting local planning discussions, hiring a professional planner, surveying structures at risk, assessing repetitive losses.

Project grants can be applied for after approval of a flood mitigation plan. They provide a means for implementing the selected mitigation option.

Remember that project grants must involve actions to reduce the risk of flood damage to NFIP-insurable structures. Communities applying for project grants must be able to meet the FMA cost-share requirement. Project grant eligible activity examples include: elevation or dry-floodproofing of NFIP-insured structures; acquisition of NFIP-insured structures; relocation or demolition of NFIP-insured structures; and minor localized structural projects. To be eligible a project must be cost-effective, compliant with applicable federal, state and local regulations (floodplain management, *etc.*), technically feasible, consistent with the community flood mitigation plan, physically in an eligible community or have a direct benefit to that community.

The goal of the Flood Mitigation Assistance Program ... *is to fund cost-effective measures that reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other National Flood Insurance Program insurable structures.* The focus will be directed at repetitively or substantially damaged structures. The program requires flood mitigation planning and will encourage communities to go beyond the basics of floodplain development review and permitting.

Specifics on the criteria of selection for planning and project grants, the schedule for the award of funding, and grant application/management requirements will be developed when final guidance is received from FEMA. Additional information about the FMA is available from:

Ohio Emergency Management Agency  
Mitigation Branch  
2855 West Dublin-Granville Rd.  
Columbus, Ohio 43235-2206  
Ph. (614) 799-3530

or

Ohio Dept. of Natural Resources  
Div. of Water - Floodplain Mgt.  
1939 Fountain Square Drive  
Columbus, Ohio 43234-1336  
Ph. (614) 265-6750



# Increased Cost of Compliance Coverage



By Michael K. Gease, Senior Planner  
Division of Water - Floodplain Management Program

A provision of the National Flood Insurance Program (NFIP) *Reform Act of 1994*, Section 1361, Increased Cost of Compliance (ICC) insurance coverage can reimburse a flood insurance policy holder for the added cost of rebuilding a structure to comply with state and local floodplain management regulations. On February 25, 1997, the Federal Emergency Management Agency (FEMA) published the Final Rule for ICC in the Federal Register. The rule took effect on June 1, 1997. ICC pays up to \$15,000 of the cost of elevating, dry floodproofing (nonresidential only), relocating, or demolition of structures either substantially or repetitively damaged by flooding.

Under the NFIP a *substantially damaged* structure has sustained damage equaling or exceeding 50% of its pre-flood market value. A *repetitively damaged* structure under the new ICC criteria must have sustained damage resulting in at least two flood insurance claims in a ten-year period ending on the date of the second claim, with damages averaging 25% of pre-flood market value in each of the two flood events. Beginning June 1, 1997, all new or renewal flood insurance policies will have a surcharge added to cover the ICC, with the surcharge ranging from six dollars to 75 dollars, depending on flood zone risk. ICC will only pay for damage resulting from flooding, the structure must be in an identified Special Flood Hazard Area (either on a preliminary or effective NFIP map), and the structure must be covered under the NFIP's **Standard Flood Insurance Policy** in a community participating in the Regular phase of the NFIP. ICC also provides coverage to cover the cost of complying with additional elevation, or *freeboard* requirements, of local floodplain regulations.

Communities must also have adopted a repetitive loss tracking system in their local regulations for an ICC claim to be paid on a repetitively damaged structure, although for substantially damaged structures ICC coverage still applies. FEMA will be developing model ordinance language to meet this criterion in the near future; this language will be incorporated into the next version of the *ODNR Model*

*Regulations.* For a copy of the complete ICC rule, contact FEMA's FAX line at (202) 646-3362, or access on the Internet at <http://www.fema.gov>. 

# Floodplain Management in a Multifaceted World



By Cynthia J. Crecelius, Supervisor  
Division of Water - Floodplain Management Program

The Association of State Floodplain Managers 21<sup>st</sup> annual conference was held in Little Rock, Arkansas the last week of April. The theme, as reflected in the title of this article, was *Floodplain Management in a Multifaceted World*. A review of the participant list, agenda topics, and technical presentations supports that the adjective *multifaceted* could also have been relocated to describe *multifaceted floodplain management* as we move toward the 21<sup>st</sup> Century. Approximately 400 interested and enthusiastic participants from nearly every state and several international locations combined their knowledge, experience, and insight to discuss, debate, and envision where floodplain management has been and where it ought to go. Three staff members from the Division of Water were able to attend this year. We gained much from our week of participation and my summary of the issues and initiatives will not do justice to the actual experience.

The conference plenary sessions were focused on the challenges to be faced in floodplain management in the future. James Lee Witt, Director of the Federal Emergency Management Agency gave a keynote address concerning the direction FEMA is moving to promote *disaster resistant* local communities. Other speakers reinforced that the future approach for disaster management, research and practices will be based upon local responsibility and decision-making.

Technical presentations highlighted how floodplain management practices are incorporating many new technologies (global positioning systems, digital maps and internet communication): floodplain management policies, programs, and projects are gearing more toward basin wide planning and inter-jurisdictional implementation; and panel discussions brought out that topics such as *mitigation*,

*compliance, Community Rating System, multi-objective management, geographic information systems, coastal hazards, and partnerships for floodplain management* are on the minds of many!

Displays and presentations by vendors and consultants increased the knowledge of floodplain managers of new and better ways to get the job done. FEMA staff participated in several interactive sessions asking for input on NFIP compliance, NFIP mapping, substantial damage determinations, flood insurance cost and coverage. Leaders in floodplain management across the nation from the public and private sector were recognized during the awards presentation. Professional Certification progress was reported and it was announced that the ASFPM hopes to unveil a national certification program by the May 1998 conference in Milwaukee, Wisconsin. New officers were elected: Terri Miller of Arizona-Chair, Lou Sidell of Maine-Vice Chair, Sue Josheff of Wisconsin-Secretary, and Ken Morris of Oklahoma-Treasurer. Region 5 (Ohio) will be represented by newly elected Paul Osman. If you have comments or issues you would like Paul to bring forward he can be reached at the Illinois Department of Natural Resources, 524 South Second Street, Springfield, IL 62701 (Ph. 217-782-3862).

According to the 1996 Association of State floodplain Managers (ASFPM) membership list, the State of Ohio has nearly 20 members. They include representatives from local and state government, as well as the private sector. The Association is an organization (formed in 1977) of professionals involved in floodplain management including traditional emergency management functional areas like flood hazard mitigation, flood preparedness, warning and recovery in addition to Flood Insurance Program participants. The Association has gained respect and recognition during its twenty-year existence as a voice for floodplain management practice and policy on the national level. It embodies the partnership framework of the national floodplain management strategies to involve all levels of government, the private sector and citizens toward common goals of reduced loss of life and property resulting from floods, and preservation of the natural and cultural values of the floodplain.

*The ASFPM fosters communication among those responsible for flood hazard activities, provides*

*technical advice to governments and other entities about proposed actions or policies that will affect flood hazards, and encourages flood hazard research, education and training.*<sup>4</sup> On a more practical note, it provides a great network of peers to commiserate, brainstorm or just chat with, concerning your floodplain management obstacles and success stories. The ASFPM also has a very reasonable membership fee - \$50.00 annual for an individual. Members receive monthly newsletters, annual directory of floodplain managers, and have the opportunity to participate on committees dealing with specific issues like flood proofing/ retrofiting, professional development, mapping/ engineering standards, and stormwater management, *etc.* Many of the committee findings and recommendations have shaped the national policy and regulations for flood hazard management. I encourage Ohio's floodplain management professionals to become aware of this national forum and take the opportunity to become involved.

## Approximately How Much??



By Chad Berginnis, Planner

Division of Water - floodplain Management Program

**F**loodplain managers can name two situations in which permit applicants walk out of their offices happily--either their proposed structure is determined to be out of the floodplain or it is located in an approximate A zone. In the latter case, most communities' floodplain management (FPM) regulations do not require a structure to be elevated, unless a 100-year flood elevation (BFE) from other sources is used.

The new permit applicant's happiness will quickly turn I into despair if or when they are required to purchase flood insurance. Why? Because flood insurance, even in approximate A zones, is based on having an elevation certificate and the elevation of a structure, even if a community's FPM regulations do not require it. A structure may be entirely compliant with a community's FPM regulations and still have an extremely high flood insurance rating. How does this happen?

Lets look at the three rate categories for structures

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<sup>4</sup> from ASFPM Mission Statement

in approximate A zones that are Post-FIRM (constructed or installed after the date of the initial FIRM) and in Regular Phase communities.

The first example is for a structure that has no elevation certificate.

### **Example 1: No Elevation Certificate**

Single family, one floor, no basement

Deductible: \$500

Building Coverage: \$100,000

Premium Calculation:

Basic Limits:  $\$50,000 @ \$1.80/\$100 = \$900$

Additional Limits:  $\$50,000 @ \$1.10/\$100 = \$550$

Fees: \$70

Premium: \$1520

Structures without elevation certificates will be assessed the highest flood insurance rates for structures in approximate A zones.

The second example is for a structure with an elevation certificate but no estimated BFE.

### **Example 2 Elevation Certificate. No BFE**

Single family, one floor, no basement

Deductible: \$500

Building Coverage: \$100,000

Elevation Difference: 0 (at grade)

Premium Calculation:

Basic Limits:  $\$50,000 @ \$1.20/\$100 = \$600$

Additional Limits:  $\$50,000 @ \$0.80/\$100 = \$400$

Fees: \$70

Annual Premium: \$1070

With this example, we introduce the concept of an elevation difference. To find the elevation difference for a structure without an estimated BFE, you take the difference between the lowest floor of the structure and the highest grade (ground elevation) adjacent to the structure. If the structure's lowest floor was elevated 2 ft. above the adjacent grade, the annual premium would be  $(\$50,000 @ \$0.55/\$100) + (\$50,000 @ \$0.12/\$100) + (\$70) = \$405$ , for a savings of \$665 per year!

The third example is for a structure with an elevation certificate and an estimated BFE.

### **Example 3 Elevation Certificate & Estimated BFE**

Single family, one floor, no basement

Deductible: \$500

Building Coverage: \$100,000

Elevation Difference: 0

Premium Calculation:

Basic Limits:  $\$50,000 @ \$0.42/\$100 = \$210$

Additional Limits:  $\$50,000 @ \$0.10/\$100 = \$50$

Fees: \$70

Annual Premium: \$330

When you have an estimated BFE, the elevation difference is the measured difference between the lowest floor and the BFE. If the structure in Example 3 was elevated 2 ft. above the estimated BFE, the premium is reduced to  $(\$50,000 @ \$0.22/\$100) + (\$50,000 @ \$0.08/\$100) + (\$70) = \$220$  per year!

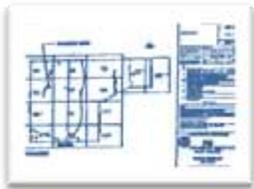
As I stated earlier, all three structures are compliant with minimum NFIP standards for elevating structures; yet, the annual premium for flood insurance changes remarkably. What, then, can a community do to ensure that its citizens are getting the lowest flood insurance rates?

- 1.) Require elevation certificates for structures in approximate A zones. (They compare adjacent grade to lowest floor level and do not require a BFE.) This action may require a change in your community's FPM regulations. The time spent and cost incurred by a property owner to complete an elevation certificate will certainly pay off in reduced flood insurance rates -- probably in one year.
- 2.) Adopt language in your community's FPM regulations that require an elevation standard in approximate A zones. The ODNR model regulations have optional language that requires structures in approximate A zones to have their lowest floor 2 feet above the highest adjacent grade. Flood insurance rate breaks occur at 2, 4, and 5 feet above adjacent grade.
- 3.) Estimate BFEs whenever possible, or require BFEs in approximate A zones. *Managing Floodplain Development in Approximate A Zone Areas*, (FEMA 265), explains different techniques for developing BFEs. It comes with

a computer program, QUICK 2, on diskette, which can be used to develop BFEs. The manual and diskette can be obtained free of charge by calling the FEMA Publications Warehouse at 1-800-480-2520.

- 4.) Join the **Community Rating System (CRS)**. The CRS provides a stepped flood insurance premium reduction for participating communities. These communities receive credit for activities that promote sound floodplain management and public education. Property owners in unincorporated Licking County enjoy a discount of up to 10% on flood insurance premiums!
- 5.) Have information available to property owners, developers, engineers, surveyors, and contractors in your community. Develop a fact sheet, brochure, or other materials explaining the tie between elevation of a structure and flood insurance rates.

The steps outlined above go beyond the minimum NFIP standards, but they make sense. Elevating a structure ensures an additional standard of protection during a flood. As we all know, mother nature does not know the meaning of a *100-year flood* and can exceed that level at any time in any place. 



## Map Needs Assessment

By Michael K. Gease, Senior Planner  
Division of Water - Floodplain Management Program

In accordance with Section 575 of the National Flood Insurance Reform Act of 1994, the Federal Emergency Management Agency (FEMA) has begun reassessing the nation's floodplain areas and flood hazard mapping under the National Flood Insurance Program (NFIP). The purpose of Section 575 is to ensure that every community's map needs are reviewed at least once every five years. Recently our office, as well as many Ohio communities, was contacted for information regarding mapping needs. Each community

received a letter from FEMA requesting information on *non-engineering* mapping needs, such as changes to Elevation Reference Marks, street locations or names, corporate limits, *etc.*, and *engineering* mapping needs, such as new or revised hydrologic or hydraulic data, changes to base flood elevations, floodplain boundaries, or floodway delineations. The Division of Water, Floodplain Management Program, was provided a list of the first group of 87 communities to be evaluated. Staff reviewed community files and provided supporting information to FEMA's Technical Evaluation Contractor, Dewberry and Davis. Of the first group of 87 communities, approximately 70, or about 80%, of the communities were recommended for map revision and/or restudy!

The information obtained by FEMA will be compiled into the *Map Needs Update Support System (MNUSS)*, a FEMA database developed to inventory the nation's mapping needs. FEMA will use the data to assess and rank each community's mapping needs relative to other communities, and establish priorities for funding restudies. Our office recommends that community floodplain managers conduct their own local assessment of floodplain mapping needs, and be prepared to respond to this FEMA initiative with any available information on flood map and study issues. Communities can make their own request for map revision or restudy using procedures outlined in the FEMA manual FIA-12, *Appeals, Revisions, and Amendments to Flood Insurance Rate Maps: A Guide for Community Officials*. Copies of this publication are available by contacting the FEMA Publication Office at (800) 480-2520 or the Division of Water, Floodplain Management Program at (614) 265-6750. 



## Water Water Everywhere...

The following is an excerpt from a September 28, 1996 *Columbus Dispatch* article entitled *Floods Lead List of Top Local Hazards* by Kevin Mayhood.

Encroachment into the flood-prone areas by people building houses and businesses has only increased the risk of flood damage from a flood. *Urbanization – more homes, parking lots, roads and buildings – has taken away the places for water to go, causing more streets and underpasses to flood each year* (J.R.) Thomas (Franklin County Emergency Management Director) said.

and permit issuance for a proposed development in a special flood hazard area.

If you would like to be a host for a workshop in your area, please contact our office at (614) 265-6750. We will be happy to answer your questions or provide additional information. 

## WORKSHOP WATCH



By Christopher M Thoms, Planner  
Division of Water - Floodplain Management Program

So far this year, our staff has conducted Flood Loss Reduction Workshops in Tuscarawas, Columbiana, Lucas, Crawford, and Preble counties. One hundred and thirty-three officials representing sixty-seven communities from twenty-five counties attended these sessions.

The Floodplain Management staff extends our thanks to our hosts, Arthur Taylor, Director Tuscarawas County Regional Planning Commission; Kristine Stauch, Director, Crawford County Emergency Management Agency; Jenny Carter, Environmental Planner, Toledo Metropolitan Area Council of Governments; Jay Carter, Director Columbiana County Emergency Management Agency; and Peggy Crabtree, Director, Preble County Emergency Management Agency for their help and hospitality.

As we go to press, workshops are being planned for Ottawa and Cuyahoga counties. Contact our office for the time and location of the workshop nearest you.

We are looking for additional workshop locations. By committing to be a local host, you provide the officials in your area an opportunity to increase their awareness and knowledge of National Flood Insurance Program (NFIP) topics. The workshops focus on assisting local officials with understanding floodplain management concepts and specific NFIP participation responsibilities. Workshop participants will be provided an opportunity to work in small groups through a hands-on exercise simulating development review

## Upcoming Lender & Agent Seminars

If you know a mortgage lender or insurance agent who needs to know more about their role in the NFIP, let them know about these upcoming seminars, designed especially for them.

**September 9, 1997**

Agent Only Seminar  
Norwood, Ohio

**October 7, 1997**

Combined Agent/Lender &  
Floodplain Manager Seminar  
Port Clinton, Ohio

To register call:

Rich Slevin, Regional  
Marketing Manager  
for the NFIP at  
(630) 955-4550





**DIVISION OF WATER  
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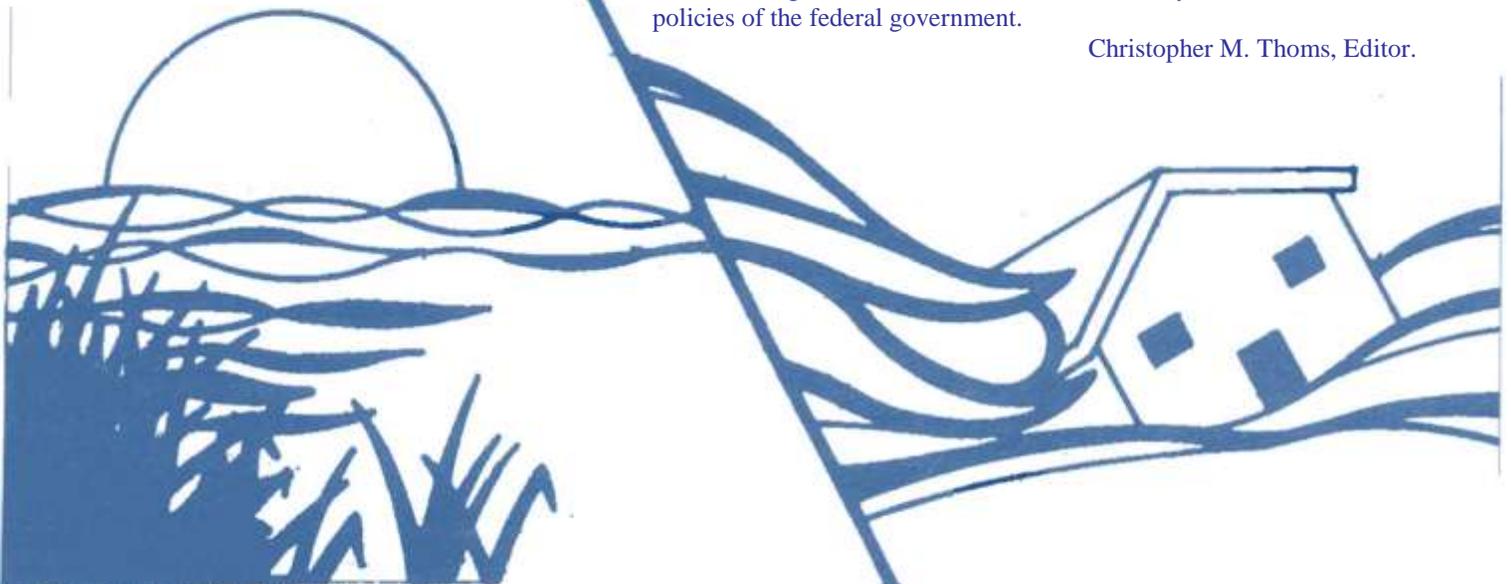
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Michele Willis, P.E.  
*Chief*

If you know of someone who would want to receive a copy of *The Antediluvian*, please let us know. Please send address corrections, additions, and personnel or office changes to our offices at 1939 Fountain Square Bldg E-3 Columbus, Ohio 43224

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Christopher M. Thoms, Editor.



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