ASSOCIATION OF STATE FLOODPLAIN MANAGERS

Dedicated to reducing flood losses and protecting floodplains . . .

INSIDE

NEWS&VIEWS

Vol. 20, No. 6 December 2008

What if we Relaxed the Regs?

Bruce Maki, Jon Steffen, Lillian Prince
Engineering Resource Associates, Inc.

Beginning around the 1940s, commercial and residential development began to influence the growth of infrastructure in Illinois. In the 1980s, state stormwater management regulations came to the forefront during relatively good economic times. Since then, local and county stormwater ordinances have evolved to include protecting new developments from flooding, abating potential damage to offsite properties, and reducing negative impacts to water quality. Over the years, development has been strong while the stormwater regulations have been helpful in preventing flooding, as well as providing a level of security for property owners and community officials. However, these days there is severe competition for budgeted funding and the regulations are being examined to determine if they need to be scaled back to encourage local economic growth.

Stormwater management regulations are written for the benefit of preventing increases in flood, environmental, and emotional damage due to land development. However, these benefits are not immediately realized with the construction of a stormwater management facility for a given development. In fact, the benefits from such a facility may never be perceived, since an effective stormwater regulation program will prevent future flood damage. Protected development will not be flooded and this fact contributes to the notion that flooding is just a concept and not a reality. Subsequently, there is a public perception that regulations are not needed. The lack of perceived benefit often results in the developing entity's (who is asked to shoulder the stormwater management costs) questioning whether the costs are necessary, fair, or can be deferred or transferred to another entity.

Such questions are answered through the process by which regulations are promulgated. Partly due to unregulated development and consequential major flooding in northeastern Illinois in 1986 and 1987, state legislation was enacted to allow counties in northeastern Illinois to develop countywide regulations. Since then, stormwater management regulations have been developed and they continue to evolve, drawing upon sound science and engineering; model ordinances and guidance developed by federal, state, and other public

[continued on next page]

What if we Relaxed the Regs? (cont.)

agencies; legal precedence; local knowledge and experience; and public involvement through the political process.

Still, it is right to question the cost to comply and who bears the cost, particularly because historically the regulations have proliferated due to federal and state mandates. It is a fact that stormwater management is expensive. Public officials may start wondering if it is cost effective to comply with the regulations as written, as opposed to the alternatives of mitigating later or doing nothing and bearing the repeated losses. As Aldous Huxley wrote, "Facts do not cease to exist because they are ignored." One stormwater management fact that cannot be ignored is that any development affecting stormwater runoff is associated with real costs that society must bear—either through compliance with the regulation, through mitigation of the resultant flood damage, or a combination of both.

Editor's note:

This article appeared in the Fall 2008 issue of the IAFSM Newsletter*, the periodical of the Illinois Association for Floodplain and Stormwater Management. Its message is universally applicable and particularly appropriate during today's economic crisis, when trading off future benefits for present-day financial savings can seem appealing. The authors are with* ***Engineering Resource Associates, Inc.****, an Illinois firm that provides a range of services related to water resources, transportation, infrastructure, and environmental protection.*

Cost to Comply with Stormwater Management Regulations

In the majority of instances, government regulation of any type can be associated with a cost. Stormwater management is no exception. As can be expected, those who must shoulder compliance costs may object to any tightening of regulations. A developer who bears the direct costs of stormwater regulation compliance may have to pay for permitting fees; designing, constructing, and maintaining stormwater facilities; and usually must dedicate a portion of the land being improved to the location of stormwater management facilities. The developer may also lose the ability to develop fully any land associated with a severe flood hazard. Some costs, such as time spent to comply and a reduction in tax base, are not easy to quantify. These compliance costs also apply to public improvements such as roadways, schools, and parks. As a result, development costs increase due to regulatory stringencies and, in the current times of economic hardship, these costs are bringing about a negotiation of the regulations.

Areas with high land value and strong development pressure are particularly sensitive to regulation. DuPage County, which is located about 30 miles west of Chicago and underwent rapid development between 1950 and 1990, has looked at the costs of compliance for development within its jurisdiction. As part of the implementation of a countywide stormwater ordinance to prevent future damage due to development, the County developed a per-acre cost to provide detention, depending on the location within the County. The cost to comply with stormwater detention requirements is in the range of $81,000 to $133,000 per acre-foot of detention and includes the costs for design, construction, maintenance, and land purchase. In counties where land values are lower, the range of stormwater management compliance costs would be correspondingly lower.

Cost of Flood Mitigation

Mitigation is a post-development flood-disaster reduction strategy. The aim of mitigation is to manage the effects of flooding, instead of preventing it in the first place. It has the intent to reduce risk to human life and properties and can be assessed pre- or post-disaster. Disaster recovery assistance is provided through several state and federally administered programs that are funded by your tax dollars. These programs are important, of course, to help to rebuild lives and communities that have been impacted by a major disaster, and to reduce the impact of probable future disasters through mitigation.

[continued on next page]

What if we Relaxed the Regs? (cont.)

The question here is: what is the cost of procrastination in managing stormwater? Reducing the cost of compliance by not implementing stormwater management or relaxing the regulations to encourage the local economy is asking for a disaster to happen. This would result in retroactive management of inevitable flooding, and then blaming the disaster for the costs incurred. Over the past 20 years, county governments in northeastern Illinois have been authorized to spend millions of tax dollars to resolve regional flooding that resulted from the lack of comprehensive stormwater management in earlier years. Local municipalities have spent $100,000s annually to mitigate and to maintain local drainage remediation projects. The costs of protection rise as more people and property are protected. On top of the good efforts to fix the problems, there are lasting annual maintenance costs compounded with inflation.

While it is true that mitigation is more expensive than regulatory compliance, in the long run it is less expensive than doing nothing and incurring repeated damage. Mitigation to reduce repeated losses is encouraged, but developing in compliance with regulations to minimize flooding in the first place is preferred. Meanwhile, we learn from our mistakes of developing unsafely and strive to protect future development from such potential damage.

Cost of Flood Damage

Once flooding happens, not only do you need a plan for future mitigation, but also you must first recover from the damage. In DuPage County, some of the costs to mitigate flood damage for the lack of stormwater regulations have been quantified, using the Lower Salt Creek Watershed as an example (a watershed found in eastern DuPage and western Cook counties). The watershed was largely urbanized before comprehensive stormwater management regulations were in force, resulting in substantial catastrophic flooding from a storm event that occurred in 1987. That flood alone had estimated flood damage of over $150 million (1987 dollars) to residents, businesses, and public utilities in DuPage County. Assuming a "do nothing" option and incurring repeated losses under this scenario would mean another $150 million every time a significant flood occurred. Instead, countywide capital improvements have been instituted since 1990 to protect against a similar flood event at a cost of approximately $120 million. In addition, annual maintenance at a cost of about $300,000 has been required for these projects.

A stormwater management facility in a development built to comply with stormwater and floodplain regulations.

Conclusions

As we've stepped through the various costs involved, from the up-front prevention to the back-end mitigation of damaging impacts, the logic is clear that the cost to

What if we Relaxed the Regs? (cont.)

comply is less than the cost to mitigate. Not only does it cost less in the long run, but it would be government negligence to reduce regulations, compromise stormwater engineering and floodplain management expertise, and test your community's flooding fate. When damage does occur it's wise to mitigate to reduce potential for future damage, but meeting regulations is the best approach to prevent/reduce damage in the first place. Some have been pushing to relax the regulations, but it is crucial to maintain diligence in a poor economy. Flooding will worsen if regulations are not enforced, resulting in costly flood mitigation in future years.

Floodplain and stormwater management regulations have been written with the benefit of hindsight. With regulations in place and development safely built, the need for mitigation measures such as large capital improvements for flood control may be phased out over time, saving millions of tax dollars as well as private citizen dollars. Regulations that are complied with now will reduce costs in the future and over time will mitigate the past damage. Yes, there is a cost associated with compliance, but the benefit of compliance far exceeds the initial cost. Regulation ultimately saves taxpayers and private property owners money in the long run, as the cost to comply is far exceeded by the cost to recover from flood damage. Flooding is unpleasant. Responsible government should be up-front with handling stormwater issues and enforcing regulations to avoid flooding, prevent the need for costly mitigation, and develop safely, because it is the much less expensive alternative.

➤➤➤ For more information, contact Lillian Prince at (630) 393-3060 or reach the authors through the "contact us" window on ERA's website, **http://www.eraconsultants.com**.

All NFIP Maps Go Digital

According to Mike Buckley, Acting Assistant Administrator for Mitigation at FEMA, the agency will discontinue the production and distribution of paper flood maps beginning in Fiscal Year 2010.

Over the five years of its Flood Map Modernization initiative, FEMA reduced by 75% the number of National Flood Insurance Program maps distributed in paper form, even though map production increased by 300% during the same period. The primary product has become the online delivery of scanned maps, revisions, and amendments through the Map Service Center at **http://www.msc.fema.gov**.

Under the new procedure, for any flood map update with a letter of final determination issued on or after October 1, 2009, FEMA will provide a single printed paper map to each mapped community and will end all other distribution of paper maps. FEMA will continue to provide free digital map products and data to federal, state, tribal, and local NFIP stakeholders. Digital data will be provided through the Map Service Center to all other requesters for the cost of distribution. However, paper maps will no longer be available through the Map Service Center.

One of the largest remaining users of paper flood maps is FEMA itself, during its disaster operations. Buckley noted that the Mitigation Directorate will work towards a smooth transition into greater reliance on digital flood maps and help develop strategies to produce paper copies as needed.

Replacing paper map products with digital versions will save money, reduce duplication, and provide users with more powerful and flexible tools. By making this change, the flood hazard mapping program expects to save from $3 million to $5 million annually. ■

Happy Holidays !

Musings from the Chair

Al W. Goodman, Jr., CFM

Fall Back and Regroup

The 2008 hurricane season is finally over, the second phase of our annual tornado season is lurking, but the holidays are so close you can taste them. I now find myself with time to relax and take a look around again. Ah, the rich smell of a Mississippi cotton field ready to be picked. This is what a floodplain should truly be used for. *[And the best part of this particular moment is that there is no levee in sight.]* Speaking of a levee, did you know that the term/word first came into use by English-speaking people in the New Orleans area around 1672? It is the feminine past participle of the French verb *lever*, "to raise." In the Netherlands, where they had been building them since the 1100s, they knew the earthen constructs as *dijk*. Since the word sounded like "ditch" to the English, the word levee was born. Interesting that dike and ditch are diametrically opposites but sound so alike, but I digress.

I just returned from the Fourth National Floodproofing Conference & Exposition, held in New Orleans. The turnout was moderate in numbers, but good things should follow such a focused gathering of the national community of flood risk managers. The program's schedule of four plenary sessions, the 12 concurrent sessions, and four discussion sessions facilitated the networking opportunities experienced by all. (For those who could not attend, the presentations will be placed on the ASFPM website.) The theme of reducing the consequences of flooding through sustainable nonstructural flood protection for buildings and communities was "spot on." Efforts that buy down the risk or consequences of flooding are noble efforts indeed. I believe Dr. Gerry Galloway's use of the acronym of VUCA (volatile, uncertain, complex, and ambiguous) to describe the local, national, and world situation in which we find ourselves summed up our reality succinctly.

The conference was kicked off by a welcome speech by Dr. Earthea Nance (City of New Orleans), who stated to the audience, "Let us begin." I found that to be an excellent illustrative counterstatement to the propensity of some communities to pine for the past. She stressed that decisions should be made that lead to a brighter and more sustainable future. From other speakers we learned that "floodproofing is a growth industry" and that levees "are to protect infrastructure and not lives." Both are sound concepts and should be self evident.

My favorite quote came from Chad Berginnis' presentation, "the road to mitigation is littered with the bones of those who implemented it successfully." In other words, successful mitigation can be a political death sentence to an elected official and even to appointed staffers. Much like being trapped in a rugby scrum, you know what to do and which way to go, but you just can't seem to get out in one piece. *[Mitigation can be such a quixotic mission, but one that must be accomplished in order to improve our community's safety and viability.]*

There exist numerous sources of mitigation methods/products/tools for the general public and local government's use. Unfortunately, there is still the problem of risk communication, which severely limits many mitigation efforts. Several local governments seem to be "getting" the idea, but the "Average Joe" still doesn't grasp the real versus perceived risk to himself or to his property. *[Sometimes it is hard to avoid the ignorance of others, but the message must be delivered, and promptly.]* Our national communication strategy that exposes the residual risk before, during, and after a flood event is still inadequate. I believe that the attendees understood this perfectly and will make the effort to find a solution or solutions to this obstacle. We now anticipate the "Eureka!" moment of enlightenment.

[continued on next page]

Musings from the Chair (cont.)

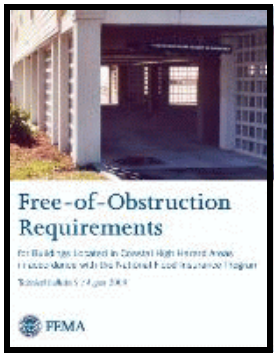
I think everyone left the gathering with an increased knowledge base and perhaps the delightful bonus of a few new friends. *[Having Bourbon Street outside the hotel's door certainly increased my life experiences. I still haven't recovered some of my sense of taste from my sampling of a "Cajun martini" at K-Paul's. It was one of those "it seemed like a good idea at the time," or "hey y'all, watch this" occurrences.]*

So, in summation, mitigation practices and strategies can be compared to the process of writing poetry. The only difference is that poetry isn't founded in an intellectual process or procedure, but an existential one. You know university students don't read mitigation plans in coffee houses, but they should. Let's work on that. ■

Two More NFIP Technical Bulletins Revised and Released

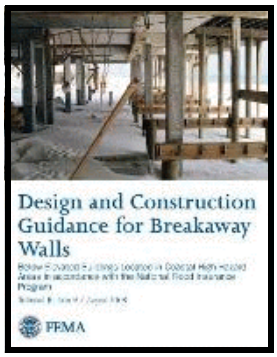
In the October *News & Views*, FEMA announced that two revised technical bulletins for the National Flood Insurance Program had been issued (TB-1, *Openings in Foundation Walls and Walls of Enclosures*, and TB-2, *Flood Damage-Resistant Material Requirements*).

Two more revised bulletins are now available.



Free-of-Obstruction Requirements (TB-5)

This updated document now includes a number of sections and photographs to illustrate obstructions and how they affect the performance of buildings when they are subjected to extreme natural forces such as storm surge. There is an expanded discussion of some types of obstructions, including the use of nonstructural fill below and around elevated buildings. The bulletin distinguishes between obstructions below homes and those of large, fully engineered buildings, outlining in particular the differences in slabs and the use of shear walls.



Design and Construction Guidance for Breakaway Walls (TB-9)

In order to provide design solutions that are consistent with the NFIP regulations and building code requirements, TB-9 now includes three design methods: a prescriptive design approach, a simplified design approach, and a performance-based design approach. The updated bulletin includes diagrams and photographs to illustrate damage attributed to poor construction practices and to highlight walls that break away as designed. Also included are discussions of related matters such as garage doors, partial-height walls, exterior façades, and utilities.

➤➤➤ All Technical Bulletins can be ordered from the FEMA warehouse, 1-800-480-2520 or downloaded at **http://www.fema.gov/plan/prevent/floodplain/techbul.shtm**.

FloodManager—
Serious Decisionmakers can Come out to Play

Curtis Beitel, P.E., CFM

The ASFPM Foundation has issued a request for proposals for the design and development of a scenario-based, serious game to teach and reinforce fundamental floodplain management principles to those who make decisions about local land development. Readers who are interested in submitting proposals for this project, or know others who may be, are encouraged to consult the RFP document at the website given below. The deadline for receipt of proposals is December 19, 2008.

The game, to be known as FloodManager, is intended to deepen decisionmakers' understanding of the impacts their choices and actions have on the economic vitality of their communities, and thereby on local resilience in the face of flooding disasters. Through FloodManager, a player or group of players could ponder and make a series of land development decisions addressing the growth of a typical town—both residences and businesses—over a given time span, with the goal of producing an economically viable, flood-resilient community that suffers minimal flood damage. A short game could span 20 years, and a long game could cover 40 years into the future.

Under the procedures of FloodManager, the group would make a series of annual decisions about how to spend the local investment revenue (cumulative property tax revenue + sales tax revenue) by approving the addition of either tract houses or mitigated houses to the community's housing stock. From an economic standpoint, it is very desirable to add businesses to the community as well, because of the additional sales tax revenue they provide, but since businesses require customers, a certain number of new homes would be required before a business could be approved. After the decisions are made each year, a random number generator would be used to determine the number of flood events that year, each with its own random intensity. The investment revenue available to spend in the following year would be reduced by the cumulative flood damage to the town's structure inventory (calculated by comparing the finished floor vs. flood elevation and applying a simplified depth-damage curve).

By starting off with an existing town, FloodManager will mimic the situation in which most community leaders find themselves—dealing with development decisions that were made before they arrived on the scene. FloodManager would teach the substantial damage principle by tracking the cumulative damage over the life of each structure in the community: when 50% of the value is exceeded, the structure must be demolished the next time it is damaged. Displaying the top 10 losses each year would allow the group to consider mitigating or acquiring these structures to reduce the losses in subsequent years. Future versions of FloodManager may include landscapes for different ecoregions, such as coastal or arid lands, allowing the players to select the landscape most similar to their area.

FloodManager should be simple enough for a group of decisionmakers to play it over a 3- to 4-hour time frame, within a morning or afternoon workshop. A computer projector could be used as the game board, with accompanying user's manuals for each participant to explain the rules of the game and offer links to more detailed real-life information. FloodManager would be implemented initially through continuing education classes at ASFPM national and state chapter conferences, and as a train-the-trainer course for floodplain administrators to take the game back home and play it with their local officials.

➤➤➤ The full RFP for development of FloodManager can be downloaded from the ASFPM Foundation website at **http://www.floods.org/Foundation/default.asp**.

People . . .

Mark Mauriello has been appointed to head New Jersey's Department of Environmental Protection, the governor's office announced in mid November. The Department comprises all of the state's land and water management programs, including floodplain, watershed, and coastal management; dam safety; fish and wildlife protection; historic preservation; parks and forestry, and others.

An experienced environmental professional, Mauriello has been active in floodplain management for decades, including providing leadership to the ASFPM's Coastal Issues Committee and serving as Chair of the New Jersey Association for Floodplain Management. Mauriello's most recent position was as Assistant Commissioner for Land Use Management at DEP, but he has been with the agency for 28 years in a variety of assignments. Mauriello is a graduate of Middlebury College, Vermont, where he earned a degree in geology.

"I am proud to lead the Department of Environmental Protection and, on behalf of the people of New Jersey, I am honored to continue tackling the significant environmental challenges we face every day," Mauriello said. In its turn, the ASFPM is proud to have "one of its own" assume such responsibility, and has every confidence that Mauriello will continue his exemplary performance in his new, bigger role.

➤➤➤ View the press release at **http://www.state.nj.us/governor/news/news/2008/approved/20081118b.html**.

■ ■ ■

The ASFPM congratulates John Ingargiola, Senior Engineer in the Building Science Branch of FEMA's Mitigation Directorate, who was awarded FEMA's Gold Medal at a ceremony in October (shown below with FEMA Administrator R. David Paulison and Deputy Administrator Harvey Johnson). The award, the highest official honor an employee of FEMA can receive, was given in part for Ingargiola's work in "advancing the role of building science in hazard mitigation."

This past year, Ingargiola's work on disaster-resistant codes and recommended residential construction techniques for the Gulf Coast were recognized in several building industry publications. His article, "FEMA Improvements to Hazard-Resistant Construction and Building Codes" appears in the Summer/Fall 2008 issue of the *Building Safety Journal*.

Using field evidence and the results of the NFIP Building Standards Study, Ingargiola was instrumental in getting the one-foot freeboard requirement incorporated into the International Residential Code. He has used building science and field evidence from years of performance studies to advance the concept of the Coastal A Zone, which is being incorporated into flood mapping procedures as an important step in minimizing damage.

➤➤➤ Read about the award at **http://www.fema.gov/government/goldaward2008.shtm**.

■ ■ ■

In case you missed it, earlier this fall Michael Buckley was named to serve as Acting Assistant Administrator for FEMA's Mitigation Directorate. At the same time, Ed Connor was asked to step in as Acting Federal Insurance Administrator.

Buckley has been with FEMA since 1980 and is currently the Deputy Assistant Administrator for Mitigation and oversees five Hazard Mitigation Grant Programs, the National Flood Mapping Program, the National Earthquake Hazard Reduction Program, the Dam Safety Program, and other administration initiatives. Connor has been with FEMA more than 15 years, and is currently the Deputy Assistant Administrator for Insurance, managing all aspects of the National Flood Insurance Program.

The ASFPM welcomed both of these interim appointments, knowing the gentlemen's dedication and capability, even as we regretted the departure of David I. Maurstad, who had filled both roles admirably since 2004. ■

Larry A. Larson, CFM
Executive Director, ASFPM

Preparing for the New Administration

The conclusion of our recent election has created an opportunity for organizations like the ASFPM to remind the incoming leaders—in the Executive Branch as well as in Congress—of what we see as important issues facing the nation related to flood damage, floodplain functions and resources, and flood risk management. The letter the ASFPM sent to both Presidential candidates, outlining the strengths and weaknesses of existing policies and programs that address these issues, is posted on our website. We will continue to refine that message as President-elect Obama names his cabinet and the other members of his Administration who will lead the agencies that deal with these issues.

The stumbling economy will and must be at the top of the list for these new leaders. One item we can expect to see is an infrastructure funding bill that would stimulate the economy while also beginning to mend our long-neglected infrastructure. The ASFPM provided written testimony to Congress with recommendations on this issue. In brief, although we do not always support heavy federal funding of infrastructure (most such investments are really the responsibility of state and local governments), we do approve of federal financial support for it in these troubled times, as long as appropriate safeguards for mitigating natural hazards and ensuring social and environmental sustainability are applied to every project that is funded.

A number of other key policy and program issues will need to be addressed very soon, many of which have been worked on and discussed for decades, but not resolved. We all hope that our new national leaders will turn to bi-partisan approaches for the first time in years, so the nation can actually move forward. The ASFPM makes it a point never to take a partisan position on policy issues, but instead to opt always for policies and programs that are in the best long-term interest of the American public. We will continue to do that, with the help of our members and Chapters.

We can expect to have to address issues like reform of the National Flood Insurance Program, revisions to the Water Resources Development Principles and Guidelines, enhanced flood mapping initiatives, mapping and accrediting levees, using mitigation programs to reduce future losses, and the collaborative integration of federal programs to eliminate stovepipes at the local and state levels. Perhaps the most important and far-reaching step will be to establish an appropriate set of incentives and disincentives that will foster responsible behavior by citizens, property owners, developers, communities, and states. Properly designed and administered, such a framework would culminate in a just allocation of the financial burdens caused by flooding—namely, that those who insist in living at risk pay the true cost of that risk.

Many of you have a keen interest one or more of these critical areas. Please get involved by letting us know that you wish to participate. Now, as never before, the ASFPM's success will rely heavily on the volunteer work of its members. I look forward to these new challenges, and the value that the collective expertise our 13,000 members can add to the dialogue. ■

GREEN WORKS TO REDUCE FLOOD LOSSES

33rd Annual Conference of the
Association of State Floodplain Managers
June 7–12, 2009 • Orlando, Florida

Join the ASFPM and hundreds of floodplain management professionals from throughout the United States and abroad in exploring the many issues and problems associated with reducing flood damage, making communities more sustainable, and managing floodplains and their fragile natural resources. The ASFPM annual meeting will feature technical presentations, panel discussions, field trips, the Certified Floodplain Manager exam, business meetings, training, networking opportunities, exhibits, and more.

Access registration information at **http://www.floods.org/orlando.**

Flood Resistant Design and Construction

ASCE Guide helps apply IBC in Floodprone Areas

Is your state one of the more than 40 states that have adopted a building code based on the model International Building Code®? If so, then you need to order a copy of ASCE 24, *Flood Resistant Design and Construction* [**http://www.asce.org**]. ASCE 24 is referenced in the section of the code that outlines requirements for buildings and structures in flood hazard areas. The most recent edition was published in 2005 (the first edition was dated 1998).

In addition, the International Residential Code® requires dwellings in floodways to be designed in accordance with ASCE 24. And the 2009 edition of the IRC will include an alternative that allows communities to require homes in V Zones to be designed in accordance with ASCE 24.

Since the 2003 editions, FEMA has noted that the International Code Series has provisions that are consistent with the NFIP's regulations for buildings. The IBC's consistency is achieved partly by reference to ASCE 24. It is important to note, however, that ASCE 24 is not simply a restatement of all of the NFIP regulations. It includes some additional specificity, some additional requirements, and some limitations.

FEMA's summary of ASCE 24-05 can be downloaded from **http://www.floods.org/PDF/ASCE24_Highlights_1008.pdf**. Here are a few notable highlights.

- Freeboard is required as a function of the nature of occupancy and the flood zone. Dwellings and most other buildings have 1 foot of freeboard; certain essential facilities have 2–3 feet; only agricultural facilities, temporary facilities, and minor storage facilities are allowed to have their lowest floors at the base flood elevation (BFE).
- Flood loads and other loads are as specified in ASCE 7.
- Performance of foundations exposed to flood loads and load combinations is specified; soil characteristics and underlying strata, including soil consolidation, expansion or movement, erosion and scour, liquefaction, and subsidence all must be considered.
- Fill is required to be stable under conditions of flooding, including rapid rise and rapid drawdown, prolonged inundation, and erosion and scour; structural fill compaction is specified or an engineering report is required; side slopes are required to be no steeper than 1:1.5.
- Specifications for slabs-on-grade are listed, depending on the purpose and location of the slabs.
- Two alternatives are specified for flood openings to allow for the automatic entry and exit of floodwaters in below-BFE enclosures: nonengineered openings that do not require certification (1 square inch per square foot of enclosed area), and engineered openings that must be certified by a registered design professional.
- In V Zones and Coastal A Zones,
  - Structures shall be supported on piles, columns, or shear walls (with shear walls limited in width and oriented parallel to the flow and wave direction).
  - Mat or raft foundations, with columns extending upward, are permitted in limited circumstances.
  - Foundation depth shall take into account erosion and scour.
  - Walls designed to break away shall not produce debris that is capable of damaging structures (breakaway walls in Coastal A Zones require openings, while breakaway walls in V Zones do not).
  - Mechanical, heating, ventilation, and air conditioning elements shall be located on the landward side of structures.

[continued on next page]

ASCE 24 (cont.)

- Erosion control structures (bulkheads, seawalls, revetments) shall not be attached to buildings nor shall they focus or increase flood forces or erosion impacts on structures.
- Decks, concrete pads, and patios shall be structurally independent of buildings and constructed to break away without producing damaging debris.
- Pools shall be elevated, designed to break away without producing damaging debris, or sited to remain in the ground without obstructing flow that causes damage.

➤➤➤ Order ASCE 24 from **http://www.asce.org** (click on "publications" to reach the bookstore. Download FEMA's summary from **http://www.floods.org/PDF/ASCE24_Highlights_1008.pdf**.

College Courses in Floodplain Management

Dramatic natural disasters and the anticipation of climate change have intensified college student interest in the management of flood losses and floodplains over the last few years. Technological advances in flood mapping and computer modeling have operated to make the field of floodplain management appealing to a wider range of young people. And existing and anticipated government and private investment in digital mapping, infrastructure rehabilitation, environmental protection, and other related fields should make the job market promising for young people educated in floodplain management.

Although there are painfully few programs in floodplain management at universities in the United States, some individual courses are being taught, and the Higher Education Project at the Emergency Management Institute has—available for free downloading— sets of instructor's materials for at least six courses with varied perspectives on floodplain management. These were developed under contract to the HigherEd Project, most by active university faculty (they are not taught an EMI). The courses are ready-to-go, including syllabi, reading materials, lesson plans, presentations, schedules, and more. They should make it possible for any department to offer one or more courses in floodplain management without having to "reinvent the wheel."

- **Floodplain Management—Principles and Current Practices** (2008), developed by James M. Wright, University of Tennessee–Knoxville
- **Floodplain Management—An Integrated Approach** (2006), a graduate-level course developed by a team led by Bob Freitag, University of Washington, and including ASFPM members Larry Larson, Elliott Mittler, and the late Rod Emmer
- **Coastal Hazards Management** (2006), prepared by a team led by David J. Brower, University of North Carolina at Chapel Hill
- **Holistic Disaster Recovery: Creating a More Sustainable Future** (2004), prepared by Gavin Smith
- **Breaking The Disaster Cycle: Future Directions In Natural Hazard Mitigation** (2004), prepared by David R. Godschalk and David Salvesen, University of North Carolina at Chapel Hill
- **Building Disaster-Resilient Communities** (2002), prepared a team led by Raymond J. Burby, University of North Carolina at Chapel Hill

➤➤➤ All the course materials are available for free downloading from **http://training.fema.gov/EMIWeb/edu/completeCourses.asp**.

The Insurance Committee's Corner

In our last column, we replied to a question about whether a flood damage claim payment would be made through the National Flood Insurance Program for a hypothetical home that had an illegal enclosure below the base flood elevation (and without flood vents). We explained that, from the perspective of flood insurance, it is irrelevant whether a given building is in violation of the local flood damage prevention ordinance. Instead, in the example given, the absence of appropriate vents below the base flood elevation becomes a rating issue. So if the structure is slab-on-grade, full coverage applies; if the building has a basement or elevated foundation, then the restrictions in the standard policy will apply, but the NFIP would pay a claim for the covered items (in both cases the payment is subject to the wording in the insurance policy).

David Odegard of the Mitigation Division in FEMA Region III wrote to provide additional input to our response. We thank David for taking the time to provide this information and we are glad to share it with our readers. He says,

> When adjusting a claim, the adjuster follows the terms of the insurance policy (the contract between the policy holder and insurer) not the *Code of Federal Regulations*, the community's ordinance, or any FEMA Technical Bulletins. The two illustrations [in your initial response] could be made clearer.
>
> First, slab-on-grade does not always mean non-elevated building. The coverage for an enclosure below the lowest elevated floor is subject to severe restrictions whether or not is has proper flood openings. In addition, the coverage that the adjuster applies is based on whether or not there is an elevated building as defined by the policy (elevated by foundation walls, piers, post, pilings, or columns). The lowest elevated floor in a building with a slab-on-grade, stud-wall-frame is the top of the slab, whether or not there is a second floor. Stud-wall-frame is not one of the specified elevation methods. However, a building with a slab-on-grade foundation with an elevated floor (elevated by foundation walls, piers, posts, pilings, or columns) has an enclosure below that elevated floor and those coverage restrictions apply.

Readers are reminded, as noted in our previous column, that even though claims are paid for damage to noncompliant buildings, requests for payment under the Increased Cost of Compliance coverage portion of the policy may not be approved if the structure is noncompliant; that ICC monies are not to be used to bring a building into compliance with a law or ordinance that it should have complied with before the current flood damage; and that once the claim is paid, the policy will be re-rated to reflect the actual flood risk, and the policyholder must pay the additional premium needed to match the current limits of the policy coverage. ■

This column is produced by the ASFPM Insurance Committee.
Send your questions about flood insurance issues to ***memberhelp@floods.org***
and they will be addressed in future issues of the newsletter.

FPM Law

Dam Owner Responsible for Damage, Deaths

The owner of a dam on Kauai has been indicted on seven counts of manslaughter and one count of reckless endangerment for his alleged role in the collapse of Ka Loko Dam in the spring of 2006, which resulted in the deaths of seven people. The owner of the 118-year old dam, the 30-acre reservoir it impounds, and about 500 acres of surrounding land is suspected of filling in the dam's spillway. After a heavy rain, water is believed to have flowed over the top of the earthen dam, eroding its base, and resulting in a breach that sent about 400 million gallons downstream, destroying two homes. Investigators for the Hawaii attorney general's office documented instances of the owner's failure to obtain permits to grade or conduct other construction-related activities in the vicinity of the dam. Two civil suits also have been brought against the dam owner, for wrongful death and property damage.

➤➤➤ A news story can be read and additional links accessed at **http://www.starbulletin.com/news/20081122_Pflueger_is_indicted_over_Ka_Loko_breach.html**.

U.S. Supreme Court lets Wetlands decisions Lie

The U.S. Supreme Court has declined to hear appeals on two cases in which the jurisdiction of the federal government over certain types of wetlands was a key issue. The appeals reflected the widespread uncertainty about what constitutes a "water of the United States" that was spawned by the Court's 4-1-4 decision (and three separate opinions) in the case of *Rapanos et ux., et al., v. United States*, 547 U.S. 715 (2006) *[see News & Views, August 2006, pp 4-5]*.

On October 6, the Court denied certioriari in *Lucas vs. United States*, a decision by the Fifth Circuit to uphold a lower-court ruling that the wetlands in that instance were protected under the Clean Water Act, having met all the tests put forth in *Rapanos*. On December 1, the Court also denied certiorari in *United States vs. McWane*. In that appeal, the U.S. government had argued that the lower courts have fallen into confusion and disagreement over federal power to protect wetlands, and urged the Supreme Court to clarify what it meant in its "highly fractured" *Rapanos* ruling two years ago.

Both denials were issued without comment by the Court, which is normal procedure.

NFIP harms Endangered Species, says NOAA

Scientists at the National Marine Fisheries Service (NMFS) issued in late September a long-awaited regulatory finding that the National Flood Insurance Program is pushing orcas and several runs of salmon towards extinction, in violation of the Endangered Species Act. The 238-page "biological opinion" was ordered by a U.S. District Court in 2004 in response to a lawsuit brought against FEMA by the National Wildlife Federation. The judge ordered FEMA to "consult" with the NMFS to ensure compliance with the Endangered Species Act, and the document is the result of that process.

The analysis concludes that, because private insurers refuse to insure floodplain homes, the NFIP allows development to occur where it otherwise would not. Although minimum standards are set through the program for all floodplain construction, those requirements currently fail to include environmental standards.

As required by the Endangered Species Act, the NMFS document also laid out an alternative approach for FEMA that would not result in jeopardy to salmon and orcas. It includes new requirements that development within the floodplain and riparian buffer area be either prohibited or that its impacts to the stream be completely mitigated. One notable element is that any development in these sensitive areas be required to use "low impact development," i.e., protection of native vegetation, pervious concrete, narrow footprints, and rain gardens to eliminate stormwater runoff. *[continued on next page]*

FEMA's Acting Assistant Administrator for Mitigation, Michael Buckley, stated in response to the opinion that "It's our goal to protect both people and the environment and we'll be working closely with NMFS on how to do that more successfully." Implementation of the recommendations is expected to change the way almost 300 Puget Sound communities manage their floodplains.

➤➤➤ The full opinion can be downloaded at **http://www.nwr.noaa.gov/Salmon-Habitat/ESA-Consultations/FEMA-BO.cfm**.

Mandatory Evacuation is just That

The New Hampshire Supreme Court has ruled that local fire officials do have authority to order residents out of their homes in time of emergency—and a flood is an emergency. The opinion reversed a lower-court ruling that had dismissed charges against an Allenstown woman who was arrested last year on charges of disorderly conduct and disobeying a police officer when she and her husband refused to evacuate their home by boat after heavy rains had flooded the neighborhood. The defendants later argued that, first, a flood is not an emergency, and second, the police had no authority to order them to leave their home. The court disagreed on the first point, saying that the "plain meaning" of "other emergency" under state law includes floods. On the second issue, the justices agreed that a state statute prohibits police from ordering people to leave their homes, but since the officer was acting at the request of the local fire officials, who had already ordered the couple to leave, the court determined that it was unlawful for her to refuse to evacuate. The case has been returned to the district court for trial.

➤➤➤ The article appeared in the November 11, 2008 *New Hampshire Union Leader* at **http://www.theunionleader.com/article.aspx?headline=Mandated+evacuation+lawful+in+emergency&articleId=b40d3e1f-b925-4c91-a8c6-995c1c20d139**.

Corps looking at Sea Level Rise

Because the impacts of climate change are of increasing concern to water resources scientists and managers, the U.S. Army Corps of Engineers early this year began revisions to its procedures for the planning and design of the agency's water resources projects located in and near coastal zones. The ASFPM was invited to comment last month on the Corps draft Engineer Circular, "Interim Guidance for Incorporating Sea-Level Change."

Among its comments, the ASFPM encouraged the Corps to

- Include a discussion of the connections among public safety, protection of the federal investment, and Corps consideration of sea-level change in the feasibility, design, construction, and operation and maintenance of Corps projects and systems.
- Follow one of the recommendations made by the National Research Council in its 1987 report and join with others to convene a joint panel of scientists and engineers to provide better interim guidance on extreme sea level rise.
- Set a reasonable expiration for the interim guidance so that reanalysis of sea-level impacts can be done as the science of ice dynamics and impacts on global and regional sea-level change matures.

The Corps interim guidance was scheduled to be finalized early in 2009, and replaced with detailed guidance within two years. An implementation plan and related policy are being developed separately.

➤➤➤ The draft guidance has not been made public, but the ASFPM's comments are posted on its website at **http://www.floods.org/PDF/Letters/ASFPM_CommentNotes_USACE_InterimSLC_113008.pdf**.

Washington Report

Legislative Report — Transition, Economic Stimulus, More Transition

The dominant focus in Washington, D.C., now is the transition from the Bush Administration to the incoming Obama Administration. Who is on the various agency transition teams? What issues should the new Administration focus on for early action after inauguration? Who is, or who should be, under consideration for appointive positions? Rumors are flying and being analyzed. Most of them, at this point, are focused on the White House staff positions and Cabinet posts. Since Cabinet appointees will play a major role in selection of sub-cabinet postings, rumors about that level of appointment haven't yet begun in earnest. Position papers and policy recommendations are being developed for the transition team. Specifics as to the work of the transition team are not readily available at this point.

In the Congress as well there is great focus on transition. Many Senators and Members of the House retired or lost their elections. Others are being discussed for positions in the incoming Administration. This has created openings in committee and subcommittee chairmanships and ranking minority member positions as well as speculative openings. Some of these questions were addressed during the lame duck session of the Congress November 17–21 and others will be dealt with during the next lame duck session December 8–12. Many of the shifts are accompanied by staff movement as well. Elections for leadership posts in the new Congress are taking place. New member orientation was held in November and jockeying for committee assignments has begun. Accompanying all of this, the room lottery has taken place. Senators and Members of Congress can bid on new office space according to their seniority, so a significant amount of moving in and out, boxing up files, reconnecting telephone and computer connections, etc., is going on, causing the expected temporary dislocations.

In the midst of all of this, the Congress has been engaged in developing another economic stimulus package, this one largely aimed at infrastructure construction, improvement, and repair. The intent had been to pass the legislative package during the November session, based on indications that the President would sign it. When it became clear that the President would not sign, the stimulus package was destined to be postponed until the next Congress. The ASFPM has urged that any stimulus package promoting infrastructure investment include a requirement that hazard mitigation be considered in project development. Written testimony to this effect was submitted to the House Committee on Transportation and Infrastructure (ASFPM testimony can be found on the website at **http://www.floods.org**).

The Executive Branch

All of the federal departments and agencies have been preparing extensive transition documents for the incoming Administration since last summer. The materials are expected to range "from soup to nuts"— meaning everything from an explanation of organizational structure to identification of positions held by political appointees to highlighting key issues active at the moment or anticipated early in the new Administration. Members of the Obama transition team already have been deployed to the federal agencies to begin working with those transition materials, to be briefed, and to develop further implementation plans for planned agenda items.

A wave of sixty-some new regulations was issued in November, most to take full effect in 30 or 60 days and therefore before inauguration of the new President. These so-called "midnight regulations" are often issued by outgoing administrations, but the number has been particularly high during this transition. Generally, the idea is to lock in place certain policies of the outgoing Administration. In the environmental arena, a number of these regulations provide industries with relief from pollution controls or weaken wilderness protection. One new regulation would permit federally funded development projects to proceed without adhering to the requirements of the Endangered Species Act.

[continued on next page]

Washington Report (cont.)

Undoing these regulations once they take effect can be difficult. A new rulemaking process can be initiated or the Congress can amend current laws to negate the effect of the regulations. Special resolutions of disapproval can also be passed, although that approach has been used only rarely. Barbara Boxer (D-CA), Chair of the Senate Environment and Public Works Committee, has indicated that her staff has been carefully following the regulations and preparing recommendations to the Obama transition team.

The Legislative Branch

In terms of committees with jurisdiction over issues of interest to floodplain managers, some will remain under the same leadership, while others will not. Although some key decisions have already been made, a list will be provided in ASFPM's *Insider* to be published in early January, when the shuffling has been completed.

Usually, a new Congress would convene in early January and then return for business later in the month (after the Presidential inauguration, if one takes place that year). However, the Congressional leadership this year seems inclined to stay in session all month to deal with the pressing issues associated with the economy and foreign affairs as well as to begin preparations for confirmation hearings on Obama Administration nominees. In addition to these issues, the new Congress must quickly deal with appropriations for most of the federal government for the rest of FY '09. At present, most of the government is operating under a Continuing Resolution that will expire on March 6, 2009. (The Department of Homeland Security Appropriations bill was one of only three regular appropriations bills already signed into law.) The National Flood Insurance Program authorization also will expire on March 6 unless final action is taken on the flood insurance reform bills from the last Congress (which can be re-introduced) or unless some further short-term extension is passed.

—Meredith R. Inderfurth, Washington Liaison
Rebecca Quinn, CFM, Legislative Officer

¤ *All referenced legislation and committee reports can be viewed at* **http://thomas.loc.gov**. ¤

Publications, Software, the Web

■ *A Unified National Program for Floodplain Management* is the periodic report that responds to the directive in Section 1302(c) of the National Flood Insurance Act of 1968 that the President transmit to Congress any further proposals needed to establish an integrated initiative for managing flood losses and resources nationwide. The last such report was produced and transmitted to President Clinton in 1994, but it has been out of print and not available electronically. Now the ASFPM has scanned the document and posted it for floodplain managers to use as a reference. The 1994 report was prescient in its embrace of twin goals (reduce losses and protect resources), and in setting a timetable for progress. It has a succinct section on the history of floodplain management and a clear expression of the conceptual basis of using floodplains wisely. Federal Interagency Floodplain Management Task Force. 1994. 44 pp. FEMA 248. Available at **http://www.floods.org/Policy/A_Unified_National_Program_for_Floodplain_Management_2004.pdf.**

■ *A Path to 2050: Reducing Flood Losses and Protecting Floodplain Resources in the United States of 2050* is the short version of the report of the Second Assembly of the Gilbert F. White National Flood Policy Forum. In 24 pages it summarizes the critical actions that must be taken to move the nation toward sustainable floodplain management and avoid devastating financial and environmental losses in the future. Printed copies may be obtained by contacting the ASFPM Executive Office at (608) 274-0123 or it may be downloaded at **http://www.floods.org/Foundation/Files/ASFPM_A_Path_to_2050_Forum_Small_Book_2008.pdf**.

Calendar

See more flood-related meetings, conferences, and training at **http://www.floods.org/Conferences,%20Calendar/calendar.asp**.

December 15–18, 2008: MANAGING FLOODPLAIN DEVELOPMENT THROUGH THE NATIONAL FLOOD INSURANCE PROGRAM (E273), Emergency Management Institute, Emmitsburg, Maryland. Contact EMI at (800) 238-3358 or see **http://www.training.fema.gov/EMIweb/**.

January 12–15, 2009: HAZUS MULTI-HAZARDS FOR FLOOD (E172), Emergency Management Institute, Emmitsburg, Maryland. Contact (800) 238-3358 or see **http://www.training.fema.gov/EMIweb/**

January 26–28, 2009: LIDAR '09: THE INTERNATIONAL MAPPING FORUM, New Orleans, Louisiana. Sponsored by numerous entities in the LiDAR industry. See **http://www.lidarmap.org/**.

February 2–5, 2009: HAZUS MULTI-HAZARDS FOR HURRICANE (E170), Emergency Management Institute, Emmitsburg, Maryland. See **http://www.training.fema.gov/EMIweb/**.

February 2–5, 2009: ADVANCED FLOODPLAIN MANAGEMENT CONCEPTS II (E282), Emergency Management Institute, Emmitsburg, Maryland. Contact (800) 238-3358 or see **http://www.training.fema.gov/EMIweb/**.

February 10–12, 2009: ENVIRONMENTAL CONNECTION '09, Reno, Nevada. Sponsored by the International Erosion Control Association. See **http://www.ieca.org/conference/annual/ec.asp**.

February 11–13, 2009: FOURTH ANNUAL CONFERENCE OF THE GEORGIA ASSOCIATION OF FLOODPLAIN MANAGEMENT, Columbus, Georgia. See **http://www.gafloods.org/conferences.htm**.

March 2–5, 2009: BUILDING THE DIGITAL COAST: COASTAL GEOTOOLS CONFERENCE, Myrtle Beach, South Carolina. Sponsored by NOAA's Coastal Services Center, the Association of State Floodplain Managers, the Coastal States Organization, the National Association of Counties, and others. See **http://www.csc.noaa.gov/geotools/**.

March 3–5, 2009: ANNUAL CONFERENCE OF THE ASSOCIATION OF MONTANA FLOODPLAIN MANAGERS, Great Falls, Montana. Contact the AMPM at **mtfloods@mtfloods.org**.

March 4–6, 2009: THIRD NATIONAL EMERGENCY MANAGEMENT SUMMIT, Washington, D.C.. Numerous sponsors. See **http://www.EmergencyManagementSummit.com**.

March 5–6, 2009: SUSTAINABILITY: BEYOND THE PLATITUDES: 18TH ANNUAL LAND USE CONFERENCE , Denver, Colorado. Sponsored by the Rocky Mountain Land Use Institute. See **http://law.du.edu/forms/rmlui/conference.cfm**.

March 10–13, 2009: ANNUAL CONFERENCE OF THE MICHIGAN STORMWATER-FLOODPLAIN ASSOCIATION, Bay City, Michigan. See **http://mi.floods.org/**.

March 10–13, 2009: ANNUAL CONFERENCE OF THE SOUTH CAROLINA ASSOCIATION FOR HAZARD MITIGATION, North Myrtle Beach, South Carolina. See **http://www.scahm.org/**.

March 11–12, 2009: ANNUAL CONFERENCE OF THE ILLINOIS ASSOCIATION FOR FLOODPLAIN AND STORMWATER MANAGEMENT, Champaign, Illinois. See **http://www.illinoisfloods.org/09_conference.html**.

March 17–19, 2009: STATE, TRIBAL, FEDERAL WETLANDS COORDINATING MEETING, Shepherdstown, West Virginia. Sponsored by the Association of State Wetlands Managers. See **http://aswm.org/calendar/index.htm**.

March 23–26, 2009: UNIFIED MITIGATION ASSISTANCE PROGRAM (E212), Emergency Management Institute, Emmitsburg, Maryland. See **http://www.training.fema.gov/EMIweb/**.

March 23–26, 2009: URBAN WATER MANAGEMENT 2009, Overland Park, Kansas. Sponsored by Pennwell Corporation, Industrial WaterWorld, and others. Contact Angela Godwin at (603) 891-9449 or **angelag@pennwell.com** or see **http://uwm09.events.pennnet.com/fl/index.cfm**.

March 23–26, 2009: ADVANCED FLOODPLAIN MANAGEMENT CONCEPTS III (E284), Emergency Management Institute, Emmitsburg, Maryland. Contact (800) 238-3358 or see **http://www.training.fema.gov/EMIweb/**.

April 5–7, 2009: ANNUAL CONFERENCE OF THE NATIONAL FLOOD DETERMINATION ASSOCIATION, Scottsdale, Arizona. See **http://www.nfdaflood.com/events_activities.php**.

April 6–9, 2009: RETROFITTING FLOOD-PRONE RESIDENTIAL BUILDINGS (E279), Emergency Management Institute, Emmitsburg, Maryland. Call (800) 238-3358 or see **http://www.training.fema.gov/EMIweb/**.

April 6–9, 2009: BASIC HAZUS MULTI-HAZARDS (E313), Emergency Management Institute, Emmitsburg, Maryland. Call (800) 238-3358 or see **http://www.training.fema.gov/EMIweb/**.

April 6–9, 2009: NATIONAL FLOOD INSURANCE PROGRAM COMMUNITY RATING SYSTEM (E278), Emergency Management Institute, Emmitsburg, Maryland. Contact (800) 238-3358 or see **http://www.training.fema.gov/EMIweb/**.

April 6–10, 2009: NATIONAL HURRICANE CONFERENCE, Austin, Texas. Organized and sponsored by numerous groups and agencies. Direct questions to **mail@hurricanemeeting.com** or see **http://www.hurricanemeeting.com/index.asp**.

April 15–17, 2009: ANNUAL CONFERENCE OF THE MISSOURI FLOODPLAIN AND STORMWATER MANAGERS ASSOCIATION, Osage Beach, Missouri. See **http://www.mfsma.org/**.

April 19–22, 2009: NATIONAL FLOOD CONFERENCE, Boston, Massachusetts. See **http://www.fema.gov/business/nfip** or email **NFIPNFC@nfipstat.com**.

May 3–6, 2009: CONFERENCE OF THE NORTH CAROLINA ASSOCIATION OF FLOODPLAIN MANAGERS, Atlantic Beach, North Carolina. Contact Conference Chair John Fullerton at **john.fullerton@ci.wilmington.nc.us**.

May 4–6, 2009: MANAGING WATER RESOURCES AND DEVELOPMENT IN A CHANGING CLIMATE, Anchorage, Alaska. Spring specialty conference of the American Water Resources Association. See **http://www.awra.org/meetings/Anchorage2009/index.html**.

May 4–7, 2009: ADVANCED FLOODPLAIN MANAGEMENT CONCEPTS II (E194), Emergency Management Institute, Emmitsburg, Maryland. Contact (800) 238-3358 or see http://www.training.fema.gov/EMIweb/.

May 5–8, 2009: BANKING UNDER THE NEW RULE: 12TH NATIONAL MITIGATION AND ECOSYSTEM BANKING CONFERENCE, Salt Lake City, Utah. Organized by JT&A, Inc., with many sponsors. See http://www.mitigationbankingconference.com/.

May 11–14, 2009: ANNUAL CONFERENCE OF THE KENTUCKY ASSOCIATION OF MITIGATION MANAGERS, Jamestown, Kentucky. See http://www.kymitigation.org/events.html.

May 18–21, 2009: EXPLORING NEW HYDROLOGIC WARNING FRONTIERS, Vail, Colorado. Annual conference of the National Hydrologic Warning Council. Sponsored by the ALERT Users Group and many others. Abstracts are due December 15, 2008. See http://www.hydrologicwarning.org/content.aspx?page_id=0&club_id=617218.

May 18–21, 2009: MANAGING FLOODPLAIN DEVELOPMENT THROUGH THE NATIONAL FLOOD INSURANCE PROGRAM (E273), Emergency Management Institute, Emmitsburg, Maryland. Contact EMI at (800) 238-3358 or see http://www.training.fema.gov/EMIweb/.

May 20–24, 2009: MAKING MARINE SCIENCE MATTER, INTERNATIONAL MARINE CONSERVATION CONGRESS, Fairfax, Virginia. Organized by the Society for Conservation Biology with numerous sponsors. Contact John Cigliano at John.Cigliano@cedarcrest.edu or see http://www2.cedarcrest.edu/imcc/index.html.

June 7–12, 2009: GREEN WORKS TO REDUCE FLOOD LOSSES: THIRTY-THIRD ANNUAL CONFERENCE OF THE ASSOCIATION OF STATE FLOODPLAIN MANAGERS, Orlando, Florida. 12 core CECs. Contact the ASFPM Executive Office at (608) 274-0123 or see http://www.floods.org/orlando.

June 22–25, 2009: WETLAND CONNECTIONS: CONFERENCE OF THE SOCIETY OF WETLANDS SCIENTISTS, Madison, Wisconsin. See http://www.sws.org/2009_meeting/index.mgi.

June 15–18, 2009: UNIFIED MITIGATION ASSISTANCE PROGRAM (E212), Emergency Management Institute, Emmitsburg, Maryland. Contact (800) 238-3358 or see http://www.training.fema.gov/EMIweb/.

July 6–9, 2009: NATIONAL FLOOD INSURANCE PROGRAM COMMUNITY RATING SYSTEM (E278), Emergency Management Institute, Emmitsburg, Maryland. Contact (800) 238-3358 or see http://www.training.fema.gov/EMIweb/.

July 6–9, 2009: ADVANCED FLOODPLAIN MANAGEMENT CONCEPTS II (E282), Emergency Management Institute, Emmitsburg, Maryland. Contact (800) 238-3358 or see http://www.training.fema.gov/EMIweb/.

July 11–15, 2009: DELIVERING CONSERVATION TODAY AND TOMORROW, Dearborn, Michigan. Annual Conference of the Soil & Water Conservation Society. See http://www.swcs.org/.

July 13–16, 2009: BASIC HAZUS MULTI-HAZARDS (E313), Emergency Management Institute, Emmitsburg, Maryland. Call (800) 238-3358 or see http://www.training.fema.gov/EMIweb/.

July 19–23, 2009: COASTAL ZONE '09, Boston, Massachusetts. Hosted by the National Oceanic and Atmospheric Administration's Coastal Services Center, with numerous sponsors. See **http://www.csc.noaa.gov/cz/**.

July 20–23, 2009: MANAGING FLOODPLAIN DEVELOPMENT THROUGH THE NATIONAL FLOOD INSURANCE PROGRAM (E273), Emergency Management Institute, Emmitsburg, Maryland. Contact EMI at (800) 238-3358 or see **http://www.training.fema.gov/EMIweb/**.

July 20–24, 2009: THIRD NATIONAL CONFERENCE ON ECOSYSTEM RESTORATION, Los Angeles, California. Sponsored by the University of Florida, U.S. Geological Survey, U.S. Army Corps of Engineers, Natural Resources Conservation Service, and others. See **http://conference.ifas.ufl.edu/ncer2009/orgcomm.html**.

July 27–30, 2009: HAZUS MULTI-HAZARDS FOR FLOOD (E172), Emergency Management Institute, Emmitsburg, Maryland. Contact (800) 238-3358 or see **http://www.training.fema.gov/EMIweb/**.

August 10–13, 2009: ADVANCED FLOODPLAIN MANAGEMENT CONCEPTS (E194), Emergency Management Institute, Emmitsburg, Maryland. Contact (800) 238-3358 or see **http://www.training.fema.gov/EMIweb/**.

August 17–20, 2009: ADVANCED FLOODPLAIN MANAGEMENT CONCEPTS III (E284), Emergency Management Institute, Emmitsburg, Maryland. Contact (800) 238-3358 or see **http://www.training.fema.gov/EMIweb/**.

August 31—September 3, 2009: NATIONAL FLOOD INSURANCE PROGRAM COMMUNITY RATING SYSTEM (E278), Emergency Management Institute, Emmitsburg, Maryland. Contact (800) 238-3358 or see **http://www.training.fema.gov/EMIweb/**.

September 9–11, 2009: CONFERENCE OF THE INDIANA ASSOCIATION FOR FLOODPLAIN AND STORMWATER MANAGEMENT, Angola, Indiana. Contact Unique Dahl at (317) 536-6721 or **info@inafsm.net**.

September 15–18, 2009: FALL MEETING OF THE COLORADO ASSOCIATION OF STORMWATER AND FLOODPLAIN MANAGERS, Crested Butte, Colorado. See **http://www.casfm.org/**.

September 20–23, 2009: ANNUAL CONFERENCE OF THE OKLAHOMA FLOODPLAIN MANAGERS ASSOCIATION, Stillwater, Oklahoma. See **http://www.okflood.org**.

October 21–23, 2009: ANNUAL CONFERENCE OF THE NATIONAL ASSOCIATION OF FLOOD AND STORMWATER MANAGEMENT AGENCIES, Colorado Springs, Colorado. See **http://www.nafsma.org**.

October 31—November 5, 2009: IAEM ANNUAL CONFERENCE & EMEX EXHIBIT, Orlando, Florida. Sponsored by the International Association of Emergency Managers. See **http://www.iaem.com/events/annual/FutureConferences.htm**.

May 16–21, 2010: THIRTY-FOURTH ANNUAL CONFERENCE OF THE ASSOCIATION OF STATE FLOODPLAIN MANAGERS, Oklahoma City, Oklahoma. Contact the ASFPM Executive Office, (608) 274-0123 or see **http://www.floods.org**.

May 15–20, 2011: THIRTY-FIFTH ANNUAL CONFERENCE OF THE ASSOCIATION OF STATE FLOODPLAIN MANAGERS, Louisville, Kentucky. Contact the ASFPM Executive Office at (608) 274-0123, or see **http://www.floods.org**.

NEWS & VIEWS

ASSOCIATION of STATE FLOODPLAIN MANAGERS
2809 Fish Hatchery Road, Suite 204
Madison, WI 53713
(608) 274-0123 fax: (608) 274-0696
asfpm@floods.org http://www.floods.org

News & Views is published six times each year by the Association of State Floodplain Managers, Inc., and is paid for by member dues.

Items for publication and other editorial matters should be directed to:

Jacquelyn L. Monday
Editor, ***News & Views***
2325 Falcon Point Ct.
Grand Junction, CO 81507
(970) 812-5356 (phone & fax)
jacki.JLM@bresnan.net

Deadline is the 18th day of odd-numbered months.
For address changes and member services, contact the ASFPM Executive Office at the address in the box above.

ASSOCIATION OF STATE FLOODPLAIN MANAGERS BOARD OF DIRECTORS

CHAIR
Al W. Goodman, Jr., CFM
State Floodplain Manager
Mississippi Emergency Management Agency
P.O. Box 5644
Pearl, MS 39208
(601) 933-6884 fax: 601-933-6805
agoodman@mema.ms.gov

VICE CHAIR
Greg Main, CFM
State Floodplain Manager
Indiana Department of Natural Resources
402 W. Washington St., Rm. W264
Indianapolis, IN 46204
(317) 234-1107 fax: 317-233-4579
gmain@dnr.in.gov

SECRETARY
Judy Watanabe, CFM
Utah Division of Emergency Management
1110 State Office Bldg.
Salt Lake City, UT 84114
(801) 538-3750 fax: 801-538-3772
judywatanabe@utah.gov

TREASURER
Wlliam Nechamen, CFM
New York Department of Environmental Conservation
625 Broadway, 4th Floor
Albany, NY 12233-3507
(518) 402-8146 fax: 518-402-9029
wsnecham@gw.dec.state.ny.us

EXECUTIVE DIRECTOR
Larry Larson, CFM
ASFPM Executive Office
larry@floods.org