

## FLOOD MITIGATION EYED IN GULF COAST RECONSTRUCTION

As recovery, rebuilding, and reconstruction proceed along the Gulf Coast—faster in some places than in others—thought and activity are being directed in encouraging ways toward ensuring that protective measures of various sorts are taken to prevent a repeat occurrence of the wide swath of intense damage brought by the 2005 hurricanes. Not since the Midwest floods of 1993 have the principles, goals, and techniques of floodplain management received such widespread attention from the public, the media, the private sector, policymakers, and government entities at all levels. The totality of the activities, issues, concerns, successes, and works-in-progress covered by this recovery event is too massive to detail here, but described below are a few of the more recent and salient developments. References and links to new publications and websites on the hurricanes and their aftermath are also listed in the Publications section of this issue [p. 19]. The ASFP is maintaining a “Hurricanes Information and Resource Page” on its website that includes many discussions, stories, detailed information, and links to additional material. The page is updated continually, and is a good place to go to find late-breaking news.

**Advisory BFEs and Recovery Maps** — Based on accumulated new data and especially on the evidence gathered after the hurricanes with regard to the extent of the storm surge, other flooding, high water marks, and tide gage readings, FEMA is moving quickly to calculate new base flood elevations (BFEs) for the affected areas that will more closely reflect current understanding of the flood risk. The agency is issuing the “advisory BFEs” as they become available (Mississippi’s have already been released and Louisiana’s are expected any time). Localities are then encouraged to adopt the ABFEs into their local ordinance so that rebuilding takes the better-understood risk into account. FEMA is also issuing recovery maps that incorporate the ABFEs.

In areas where recovery maps have been issued, applicants for any of FEMA’s grant programs (Hazard Mitigation Grant Program, Flood Mitigation Assistance, and Pre-Disaster Mitigation) will be required to use the refined elevation data from the recovery maps in their proposed mitigation planning and activities. This ensures that mitigation efforts and funding are based on improved available data and will truly result in safer buildings and communities.

In a year or two, FEMA will issue revised Flood Insurance Rate Maps, and communities are being advised to anticipate that the new BFEs on those maps will closely resemble today’s ABFEs.

### Advisory BFEs and Flood

**Insurance** — Premiums on existing flood insurance policies are not increased by the issuance of the ABFEs, because the community’s FIRM is not being formally revised at this time. At least one Mississippi-area bank has indicated it will only make loans for properties that have at least three feet of freeboard above the existing BFEs and prefers elevation to the ABFE (insurance would be required).

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# from the Chair

*Pam Pogue, CFM*

Happy Black Friday! As I write this I am alone in my office, the day after Thanksgiving, trying to come up with a thought-provoking missive, my first as Chair, while “the masses” have been scrambling since dawn to complete their holiday shopping (I am not a shopper). After all, there are only 30 more days. . . . In light of what has transpired these past four months, as your Chair I would like to convey to you how your Association has reacted in response to hurricanes Katrina, Rita, and Wilma.

We are all too familiar with that old adage, “be careful what you wish for.” In my acceptance speech as Chair in June, I noted that one of the critical issues for the ASFPM in 2006 was going to be a focus on coastal flooding, storm surge, and erosion and how coastal hazards affect flooding and flood losses in this country. The Board has fully supported the development of a coastal No Adverse Impact handbook and relevant publications. The handbook is moving ahead through the generous financial support of the National Oceanic and Atmospheric Administration’s Coastal Services Center. My first official presentation as Chair of ASFPM was at the bi-annual national Coastal Zone Managers conference on coastal No Adverse Impact floodplain management, and the dire need for coastal zone managers, floodplain managers, and emergency managers to connect, collaborate, and communicate. The conference was held in New Orleans, five weeks before Hurricane Katrina. Be careful what you wish for!

Within 10 days after Katrina’s landfall, the National Wildlife Federation and ASFPM jointly held a national press conference at the National Press Club in Washington, D.C., and I was fortunate to be able to attend. At that time, Larry Larson presented the ASFPM’s preliminary white paper on Katrina. Since then your Association and its members have engaged in a myriad of activities including deployment to the Gulf Coast and New Orleans, testimony before Congress, review and comments on draft national legislation, a joint Congressional workshop on Hurricane Katrina held with the Coastal States Organization and the Association of State Wetlands Managers, damage assessments, and providing expertise for critical technical issues related to revised flood elevations on the Gulf Coast, just to name a few.

The Board had an extremely productive retreat in October in Albany, New York. It was decided there that the Katrina white paper would be expanded to include a more detailed analysis of several related topics due to the significant impact these events are having on national policy. The topics that will be looked at in greater detail and developed into additional white papers include critical facilities, coastal A zone standards, demo-rebuild, higher standards for building codes, 500-year design for levees, residual risk insurance, the FEMA Pre-Disaster Mitigation program, the disconnects between the NFIP and other federal programs, and the need for making insurance claims data available to state and local government officials. I thank all the Board members, Committee Chairs, and others who have volunteered to draft these white papers.

In the next few months the ASFPM will be participating in several national events. Larry Larson will represent the ASFPM in Sacramento for a national policy discussion on levees with the Corps, FEMA, and the National Association of Flood and Stormwater Management Agencies. Mark Matulik will represent the ASFPM at the annual Southern State and Caribbean regional coastal zone management meeting and will share his own experiences and lessons learned from the past four months he has spent on the Gulf Coast. Finally, ASFPM will be represented by yours truly at a meeting of the American Meteorological Society Policy Program on Katrina to be held in Washington, D.C., in December.

In closing, I am extremely proud and thankful (as the season befits) of the ASFPM members that have stepped up and contributed generously of their time, expertise, and talents during this time of national tragedy. I encourage you to touch base with and continue to support our Mississippi and Louisiana members and their chapters, in particular our Vice-Chair and Mississippi State Floodplain Manager, Al Goodman, CFM, and Cindy O’Neal, CFM, the Louisiana State Floodplain Manager. These individuals need our ongoing support, encouragement, and prayers.

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# NO ADVERSE IMPACT FLOODPLAIN MANAGEMENT

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## Legal Workshop on NAI a Smashing Success

A one-day workshop held November 4 in Prescott, Arizona, provided a forum for a review of evolving property rights issues as they apply to floodplain and other local regulation, and an explanation of the legal aspects of No Adverse Impact floodplain management. The workshop, "An Update on the Taking Issue," organized by the ASFPM with sponsorship and support from the Arizona Floodplain Management Association and Michael Baker, Inc., was designed as an educational tool for attorneys, especially those who represent municipalities and counties. At what point do land use regulations so restrict the rights of a landowner that a compensable "taking of property" occurs under the Fifth Amendment to the U.S. Constitution? Besides addressing this thorny question, the instructor, Edward A. Thomas, Esq.,

- Reviewed the truly ancient legal roots of the "No Adverse Impact" floodplain management concept;
- Demonstrated how using the NAI standard avoids much, if not all, the uncertainty surrounding the U.S. Supreme Court's "takings" cases;
- Clearly demonstrated that the taking issue cases overwhelmingly support "No Adverse Impact" based regulation of hazardous areas; and
- Challenged regulators to be bold in restricting use of hazardous locations but at the same time, to be fair and sensitive to the deep and abiding concerns of the "property rights movement."

Enthusiastic questions and discussion among the engineers, attorneys, and planners in attendance was a definite plus to the event—their interaction went a long way toward solidifying the NAI concept as a practical local approach to floodplain management. Participants were highly complimentary in their evaluations of the session, calling it "the best," and "extremely well done."

Attorneys attending the workshop received credits toward the Continuing Legal Education requirements of the Arizona bar. Plans are being made for future similar workshops. Persons interesting in having one presented in their city should contact the ASFPM Executive Office at (608) 274-0123 or [asfpm@floods.org](mailto:asfpm@floods.org).

## Coastal NAI Case Studies Needed

We need your help. The ASFPM has published *No Adverse Impact—A Toolkit for Common Sense Floodplain Management*, a document that has been very well received and is heavily used throughout the nation. Now, the National Oceanic and Atmospheric Administration has provided ASFPM with funding to develop a **coastal** version of this document. We are scheduled to provide the draft to NOAA in February 2006 with the final to be posted on ASFPM's website later in the spring.

We need examples of coastal communities that are implementing No Adverse Impact principles in a coastal setting for each of the NAI Building Blocks:

- Hazard Identification and Mapping
- Education and Outreach

[continued on page 4]

## No Adverse Impact (cont.)

- Planning
- Regulations and Development Standards
- Mitigation
- Infrastructure
- Emergency Services.

If your community (or a neighboring community) has implemented programs that go beyond the minimum federal requirements and demonstrate NAI concepts, we would like to hear about it. Who knows? Your community could end up being highlighted in the ASFPM Coastal No Adverse Impact Handbook.

Please take a few minutes and send a paragraph or two describing how your coastal community has implemented NAI concepts to Alan Luloff, ASFPM Project Manager at [alan@floods.org](mailto:alan@floods.org). Photographs, maps, or other illustrations that go with your narrative would be great. Examples with associated graphics must be received no later than January 15th.

## Add an NAI Success Story to the Website

Readers also are encouraged to submit a description of their successful project or activity (inland or coastal), to be added to the NAI webpage so that other floodplain managers can share even more experiences. Get ideas from the site at <http://www.floods.org/NoAdverseImpact/cases.asp>. Send these directly to the ASFPM Executive Office at [memberhelp@floods.org](mailto:memberhelp@floods.org).

## Learn More about NAI

The ASFPM believes that rising flood losses can best be remedied by adopting a broad guiding principle of “no adverse impact” (or NAI) floodplain management. Under an NAI framework, the action of one property owner within a watershed is not allowed to adversely affect the flood risks for other properties, as measured by flood stages, flood velocities, flood flows, and the potential for erosion or sedimentation, unless community-approved mitigation occurs. A community pursues NAI floodplain management through development and management plans and programs that identify the levels of impact the community believes to be acceptable, specify appropriate mitigation measures that will prevent development activity from having a net adverse effect on the rest of the watershed, and ensure that the mitigation measures are carried out effectively.

>>> Learn more about the concept of NAI and how it is being applied across the United States by clicking on “No Adverse Impact” at the ASFPM’s website at <http://www.floods.org>.

>>> For more on the legal aspects of NAI, see *News & Views*, October 2004, p. 3 or link to *No Adverse Impact Floodplain Management and the Courts*, by Jon A. Kusler, at [http://www.floods.org/NoAdverseImpact/NAI\\_AND\\_THE\\_COURTS.pdf](http://www.floods.org/NoAdverseImpact/NAI_AND_THE_COURTS.pdf).

*Happy Holidays !*

## Flood Mitigation & Reconstruction (cont.)

**Advisory BFEs and use of ICC**—One ramification of the ABFEs that is still of concern is their applicability to claims payments under a policyholder's increased cost of compliance (ICC) coverage. The ICC coverage payment is intended to help policyholders with the added cost of rebuilding, repairing, or retrofitting to comply with the community's elevation or other flood mitigation requirement. Although many homeowners in the hurricane-damaged area have demonstrated eagerness to rebuild to the new ABFEs (or above), FEMA has indicated that ICC payments cannot be used for that purpose unless the community has formally adopted the ABFEs. While recognizing that this decision has been based on established interplay of flood insurance, local authority, and federal standards, the ASFPM believes that the best use of ICC funds would be to help homeowners elevate or otherwise mitigate beyond what is required by the community if they wish to do so.

**Long-term Considerations**—Once again a catastrophic event has served to cause examination of the larger issues of human interaction with the natural environment. In "Hurricane Katrina and the Paradoxes of Government Disaster Policy," Ray Burby, Professor of City and Regional Planning, University of North Carolina at Chapel Hill, explains the disaster by the existence of the following two paradoxes, and then shows how they can be overcome to reduce future losses and damage. The "safe development paradox" is that in trying to make hazardous areas safer the federal government has in fact substantially increased the potential for catastrophic property damage and economic loss. The "local government paradox" is that while their citizens bear the brunt of human suffering and financial loss in disasters, local officials pay insufficient attention to policies to limit vulnerability. Burby's paper will appear in a spring issue of the *Annals of the American Academy of Political and Social Science*, but a final draft can be viewed by floodplain managers on the ASFPM website at [http://www.floods.org/PDF/Burby\\_Katrina\\_WiseGovernmentalDecisions.pdf](http://www.floods.org/PDF/Burby_Katrina_WiseGovernmentalDecisions.pdf)

The role played by the loss of southern Louisiana's marshes and wetlands in the hurricane destruction cannot be fully determined, but there is fairly broad agreement that the buffering capacity provided by those natural features would be beneficial and that efforts should be made to protect and restore them as part of a broad strategy to mitigate future damage. There are many unanswered questions, however, about where, what, and how much to protect and restore, how best to go about it, and how to finance it. A new report by the National Research Council does a good job of reviewing many of the relevant issues. *Drawing Louisiana's New Map: Addressing Land Loss in Coastal Louisiana* was essentially complete and in the final stages of peer review when the hurricanes struck. It focuses primarily on the massive restoration initiative proposed by the Corps of Engineers and the State of Louisiana in late 2004. The book has not been printed, but a pre-publication version can be read in its entirety online at [http://books.nap.edu/catalog/11476.html?onpi\\_newsdoc11092005](http://books.nap.edu/catalog/11476.html?onpi_newsdoc11092005).

**ASFPM Activities**—The ASFPM continues to work diligently on all the floodplain management issues raised by the hurricane reconstruction efforts. A large number of requests for technical information, expertise, and assistance continue to be received daily. As noted by Chair Pam Pogue in her column [page 2], white papers on nine separate issues are being drafted, and the overall Katrina white paper will be revised. These pieces serve to coalesce floodplain management thinking and help make others aware of the many interrelationships among the policies, programs, funding mechanisms, regulations, needs, and responsibilities spread throughout the various levels of government, the private sector, and the public.

Legislative items pertaining to reconstruction policies that are being monitored by the ASFPM are detailed in the Washington Report section of this issue [page 9], along with some of the ASFPM's work in providing testimony before Congressional committees and in its partnerships with policy coalitions. □

# WHY LEVEES FAILED IN NEW ORLEANS

After the fall hurricanes, the American Society of Civil Engineers assembled several teams of coastal and geotechnical engineers and other experts to examine the failures of the New Orleans levee system. On their site visit in early October they were accompanied by a team from the U.S. Army Corps of Engineers' Engineer Research and Development Center, which provided insight and logistical support.

The preliminary findings of the ASCE investigation were discussed in testimony before the Senate Committee on Environment and Public Works on November 17.

What ASCE found in the field was very different from what had been expected, given the media reports. Rather than a few breaches through the floodwalls in the city caused largely by overtopping, there were literally dozens of breaches throughout the many miles of levee system. A number of different failure mechanisms were observed, including scour erosion caused by overtopping, seepage, soil failure, and piping.

Where the storm surge was most severe, causing massive overtopping, the levees experienced a range of damage from complete obliteration to remaining intact with no signs of distress. Much of the difference in the degree of damage can be attributed to the types of levees and the materials used in their construction. The majority of the most heavily damaged or destroyed earthen levees were constructed of sand or "shell fill," which was easily eroded.

Three major breaches clearly were not overtopped. Instead, obvious soil failures within the embankment or foundation soils at or below the bases of the earthen levees had occurred. At the distressed levee sections, seepage and piping were evident. These types of soil instabilities appear likely to have been responsible for failure of these wall systems.

Based on its preliminary findings, the ASCE made these recommendations.

- Congress should enact a national levee inspection and safety program, to include a national inventory of levees, particularly those that protect large urban areas.
- New development in the floodplain must be discouraged unless there is a pressing need for it and adequate protection can be provided. Population centers on the Gulf Coast must be given a higher level of protection than they now have.
- All the available tools must be used to reduce damage, including structural means as well as flood resistant design, voluntary relocation, revitalization of wetlands for storage, and use of natural barriers such as the Louisiana wetlands.
- A more stringent national flood control policy should be considered that emphasizes the need to protect human life from a 500-year flood.

> > > The ASCE testimony is posted on the ASFPM's website at [http://www.floods.org/PDF/Roth\\_SentateTestimony\\_LeveeFailure\\_111705.pdf](http://www.floods.org/PDF/Roth_SentateTestimony_LeveeFailure_111705.pdf)

## The ASFPM on Levees

In testimony before the House Transportation and Infrastructure Subcommittee on Water Resources and Environment on October 27, 2005, the ASFPM (represented by Rod Emmer) again presented its position on the use of levees for flood mitigation. Like the ASCE, the ASFPM calls for a national program to ensure the safety of levees, including stricter design and construction standards and certification procedures. In addition, buildings behind levees should be constructed (elevated) to provide some level of protection and should carry flood insurance to cover their residual risk. The ASFPM goes further to state that levees should be considered an option of last resort and used only to protect existing communities. Levees should not be used to protect undeveloped land with the anticipation that new development can safely be placed behind them. The hurricanes demonstrated that such development is always at risk.

> > > The ASFPM's testimony is on the ASFPM's website at [http://www.floods.org/PDF/ASFPM\\_Testimony\\_HouseT&I\\_ReducingHurricaneFloodRisk\\_102705.pdf](http://www.floods.org/PDF/ASFPM_Testimony_HouseT&I_ReducingHurricaneFloodRisk_102705.pdf)



# THE LAW AND FLOODPLAIN MANAGEMENT

## U.S. Supreme Court to hear Wetlands Cases

The Supreme Court has agreed to hear during its current term two cases—*U.S. v. Rapanos* and *U.S. v. Carabell*—that involve the geographical scope of Clean Water Act authority.

The cases are particularly noteworthy because they will further address the reasoning behind the 2001 Supreme Court decision in *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*, 531 U.S. 159 (2001), (known as the SWANCC case), which overturned the Corps of Engineers' long-standing assertion of federal jurisdiction over certain isolated wetlands based solely on the presence of migratory birds. In that decision the Court said that federal agencies could not regulate isolated wetlands under the Migratory Bird Act or the Interstate Commerce clause of the U.S. Constitution. Considerable debate has ensued over how broadly to read the Court's decision [*see News & Views*, February 2003, pp. 4-5; February 2004, p. 5; and June 2004, p. 11]. [*See also the article about a related GAO report on page 13 of this issue.*]

The two upcoming cases are both from Michigan, involving appeals of 6th Circuit decisions. In the first case, John Rapanos was found liable for filling 54 acres of wetlands at three sites without the required Section 404 permits. The 6th Circuit rejected Rapanos' argument that the wetlands were not "adjacent" because they were as far as 20 miles from navigable waters and upheld the government's argument that the wetlands did fall under CWA jurisdiction because they were hydrologically connected—through a series of nonnavigable tributaries—to traditionally navigable waters, namely Lake Huron or the Tittabawassee River.

In the *Carabell* case, the 6th Circuit upheld the Corps' jurisdiction over a forested wetland that was within a mile of Lake St Clair but separated from tributaries by a human-made berm. The 6th Circuit upheld the finding of the lower court that the wetlands were nevertheless "adjacent" because there was a "significant nexus" between the wetlands and navigable waters.

In both *Rapanos* and *Carabell* the Supreme Court has agreed to address questions on the scope of Congress' authority under the Commerce Clause to regulate activities affecting navigable waters. This decisions could have broad application to a host of federal environmental laws based on the Commerce Clause, including the Clean Air Act and the Endangered Species Act.

Floodplain managers should note that the legal theories, arguments, and decisions about federal authority over wetlands under the Clean Water Act are completely distinct from those addressing "takings" under the U.S. Constitution. No decision the Supreme Court makes in the upcoming CWA cases will affect the strong legal position held by state and local floodplain regulations and No Adverse Impact policies, as discussed in the *News & Views* [*this issue, p. 3 and August 2005, p. 4*] and other ASFPM forums.

>>> For more on the wetlands cases see the website of the Association of State Wetland Managers at <http://www.aswm.org/>. Additional information about many other legal aspects of floodplain management can be found at the ASFPM website at <http://www.floods.org>.

## Surveyor Pleads Guilty in Wetlands Case

A surveyor from Loganville, Georgia, pleaded guilty in November in the U.S. District Court for the Eastern District of North Carolina to conspiracy, making a false statement, and violating the Clean Water Act. According to the charges against him, the defendant conspired with others to falsify wetlands delineation maps and make specific parcels of land appear suitable for development. He then assisted in the development of a false delineation map and forged the signature of a U.S. Army Corps of Engineers official on the false map. The map was then turned in to the Corps to justify land-clearing activities that affected wetlands protected under the Clean Water Act. The current landowners are working with regulatory agencies to mitigate damage at the site.

The case was investigated by the Charlotte Office of EPA's Criminal Investigation Division, the North Carolina State Bureau of Investigation, the Defense Criminal Investigative Service, the U.S. Army Criminal Investigation Division, and the Army Corps of Engineers. It is being prosecuted by the U.S. attorney's office in the Eastern District of North Carolina. □

[from *EPA News Briefs*, November 30, 2005]

**Institute for Business & Home Safety and ACSP  
Request Submissions for  
Scholarship Award in Planning and Natural Hazards**

Abstract Submissions to ACSP  
January 10— February 28, 2006

The Institute for Business & Home Safety (IBHS), together with the Association of Collegiate Schools of Planning (ACSP), are requesting submissions for the annual scholarship award in planning and natural hazards.

Abstracts must be submitted to ACSP between January 10 and February 28, 2006. Papers should address land use or other types of planning that incorporate natural hazards, including but not limited to flooding, coastal erosion, land subsidence, earthquakes, or other geologic or meteorological hazard impacts that can be minimized through community, regional, or state planning.

Undergraduate, graduate, and joint faculty/student papers are eligible. For joint faculty/student papers, the student must be the first author and designated presenter of the paper. Only papers accepted for presentation at the ACSP Conference will be eligible for the award.

Authors whose abstracts are accepted for presentation at the conference will submit their final papers by June 30, 2006. Papers are not to exceed 20 pages and will be reviewed during the summer of 2006 with notification about the winner of the award in September 2006. One \$500 prize will be presented at the ACSP 2006 conference. The winner will agree to first publication rights by IBHS in its quarterly publication, *Disaster Safety Review*.

Abstract submission procedures and deadlines can be found at <http://www.acsp.org>. Abstracts will be submitted directly to the ACSP conference organizers and simultaneously by email to the ACSP-IBHS committee chair.

For more information, contact Diana McClure at IBHS, [dmcclure@ibhs.org](mailto:dmcclure@ibhs.org) or the IBHS Review Committee Chair, Dr. Ann-Margaret Esnard, [aesnard@fau.edu](mailto:aesnard@fau.edu).

## **NOAA FUNDS STREAM BARRIER REMOVAL**

The National Oceanic and Atmospheric Administration (NOAA) has announced the availability of up to \$6 million in financial assistance for the Open Rivers Initiative. The initiative provides technical expertise and funds in the form of grants anticipated to range from \$50,000 to \$250,000 for communities to remove obsolete and derelict stream barriers, including dams. Projects are expected to provide an economic boost for communities, enhance public safety, and improve populations of NOAA trust resources such as striped bass, Atlantic and shortnose sturgeon, Atlantic and Pacific salmon, American eel, American shad, blueback herring, and alewife. Proposals selected for funding will be implemented through a cooperative agreement.

Proposals must be submitted no later than January 13, 2006. More information can be found under “Funding Opportunities” at <http://www.nmfs.noaa.gov/habitat/restoration/>. Full initiative details, including specifics on the criteria that will be used to evaluate proposals, are available by searching for Funding Opportunity #NMFS-HCPO-2006-2000405 at <http://www.grants.gov/>.



# Washington Report

## LEGISLATIVE REPORT

### The Situation in Brief

At press time, Congress is in adjournment for the Thanksgiving period with the House returning December 6th and the Senate December 12th. It is unlikely that they will remain in session beyond the week of the 12th, so there is significant pressure on that brief session to finish important business related to hurricane recovery. There was a rush of activity just before the November 18th adjournment, but much of the needed legislation remains in limbo.

The good news is that the Department of Homeland Security's Appropriations bill for FY 2006 was passed and signed timely this year, so it is not part of the rush to complete remaining appropriations measures. That means funding levels are clear, disbursements can be made, programs can continue—unlike the situation in some recent years. Other good news is that Congress did act on November 18th to increase the borrowing authority for the National Flood Insurance Program (H.R. 4133) to \$18.5 billion and the President has signed the measure (P.L. 109-106). That occurred just in time to avoid major post-hurricane problems since FEMA had already informed the Write Your Own insurance companies that they could not reimburse for adjuster expenses and could not pay flood insurance claims.

Despite the availability of full funding now for the Repetitive Flood Loss programs authorized in June 2004, there are no regulations in place for the Pilot Programs and no guidance for use of the “demolish and rebuild” mitigation option (which FEMA refers to as “modified elevation”). FEMA advises that rapid progress will be made on these to ensure availability during the hurricane recovery.

### Legislative Action in November

**NFIP borrowing authority**—As noted above, Congress passed HR 4133 increasing the NFIP's borrowing authority to \$18.5 billion (from \$3.5 billion). The bill was passed on November 18th and signed by the President on November 21st, becoming P.L. 109-106.

**Flood Insurance Reform**—The House Financial Services Committee marked up H.R. 4320 on November 15th, making a number of changes to the NFIP. The bill had originally included an increase in borrowing authority to \$22 billion, the amount FEMA estimates will eventually be needed to cover claims and expenses from Hurricanes Katrina, Rita, and Wilma. The bill would

- Increase flood insurance coverage limits to \$335,500 for residences, \$135,000 for contents, and \$670,700 for commercial properties. It would add authority for coverage for additional living expenses and for business interruption.
- Direct FEMA to establish the appeals process and mitigation programs mandated in the Flood Insurance Reform Act of 2004 and to report on its progress.
- Direct FEMA to enforce the minimum training and education requirements included in the 2004 Act.
- Direct FEMA to report to Congress on the NFIP's financial status twice a year and to report on the plan for repayment of Treasury borrowing.
- Increase the fine imposed for lender non-enforcement of the mandatory purchase requirements from \$350 to \$2,000 per violation.

A manager's amendment would require lenders to provide notice, along with the standard hazard insurance notice, that flood insurance is available to all homeowners, not just  
*[continued on page 10]*

## Washington Report (cont.)

those in a designated floodplain. Additionally, it would make clear that FEMA may provide funding through the regular Flood Mitigation Assistance (FMA) program for demolition and rebuilding of structures in the floodplain to higher elevations, referencing the language in FIRA '04 pertaining to the Pilot Program for severe repetitive losses.

An amendment by Ranking Minority Member Barney Frank (D-MA) would add additional staff for FEMA. An amendment by Gary Miller (R-CA) struck the major provision in the bill that would have changed the 100-year floodplain coverage to 500-year floodplain coverage. Instead, the Comptroller General of the United States would be required to conduct a study in six months on extending the requirements for the mandatory purchase of flood insurance policies to all properties located within the 500-year floodplain.

**PDM Reauthorization**—The Pre-Disaster Mitigation Grant program will expire on December 31st if not re-authorized. The DHS Appropriations bill for FY '06 includes \$50 million for the program, down from \$150 million in FY '05.

The House passed H.R. 4324 late November 18th re-authorizing the program for three years. The bill also reinstates a request for a Congressional Budget Office study of cost reduction with a due date of September 30, 2007.

On the Senate side, the re-authorization situation is less clear. At present, a 2 year re-authorization is included in a bill introduced by George Voinovich (R-OH) dealing with medical first responders. That measure itself has been folded into another bill. The prospects for action on the larger two bills in December are dim. It is hoped that the Senate will simply take up H.R. 4324 and pass it in December.

**Development of HMGP Changes**—The House Committee on Transportation and Infrastructure's Subcommittee on Public Buildings, Economic Development and Emergency Management is working on a package of needed emergency alterations to the Stafford Act and the Hazard Mitigation Grant Program. Under consideration are such items as

- Permitting use of Stafford Act funds for base pay of certain local officials in certain jurisdictions under certain circumstances. (This would include permitting officials.)
- Restoring HMGP to 15% of disaster costs from the current 7.5%.
- Temporarily waiving the cost share for certain jurisdictions or reducing it to 90/10 from 75/25.
- Permitting use of demolish and rebuild (modified elevation) as a mitigation option with some restrictions, such as not rebuilding in a floodway or other high risk areas.

**Energy and Water Appropriations**—The House-Senate Conference Report (H.Rept. 109-275) on the Energy and Water Appropriations bill (H.R. 2419), which covers the Corps of Engineers programs, was adopted and sent to the President for signature on November 14th. It was signed on the 19th as P.L. 109-103.

## What to Expect in the December Congressional Session

**Possible HMGP Action**—The House could act on a small package of Stafford Act modifications (see above) although there is, at present, no bill introduced. So far, the Senate Committee on Homeland Security and Governmental Affairs has indicated a preference to wait for its Katrina recovery report before taking action.

**Possible Action on Flood Insurance Reform**—The House could take up H.R. 4320, although the momentum is reduced due to action in November on the urgently needed increase in NFIP borrowing authority. The Senate Banking Committee is developing a bill that would include expansion of mandatory flood insurance purchase and provide authority and funds for  
*[continued on page 11]*

## Washington Report (cont.)

mapping those residual risk areas of the 500-year floodplain and areas protected by levees or other structural flood control. It is unclear whether the measure could be acted on in the short December session. Apparently, Elizabeth Dole (R-NC) has a hold on the bill pending further information on the impact of mandatory purchase in the 500-year floodplain.

**PDM Reauthorization**—It is likely that the Senate will pass H.R. 4324, re-authorizing the Pre-Disaster Mitigation grant program.

**Possible Levee and Flood Control Legislation**—Despite earlier indications that any levee policy legislation would have to be effected through a Water Resources Development Act (WRDA), there is some possibility of legislation being developed in the Environment and Public Works Committee in December. Information is limited at this time, but ASFPM representatives will be meeting with Committee staff to learn more about what may be under consideration.

### What to Look for in the Next Session (Second Session, 109th Congress)

**FEMA/DHS**—A number of bills have been introduced in the House and one in the Senate to re-establish FEMA as an independent executive branch agency. Swirling around and through the many Congressional hearings and mark-ups on hurricane recovery is the recurrent issue of FEMA's organizational structure and bureaucratic situation. While some Members of Congress would like to see the issue addressed during the brief December session, it seems more likely that it will be given serious attention in the spring. The House Committee on Transportation and Infrastructure's Subcommittee on Public Buildings, Economic Development and Emergency Management has indicated plans to take up the matter. A timetable is less clear on the Senate side but staff of the Homeland Security and Governmental Affairs Committee have indicated interest.

The various bills are H.R. 3659 (James Oberstar (D-MN), with 21 cosponsors), H.R. 3656 (John Dingell (D-MI) with 72 cosponsors), H.R. 3685 (Mark Foley (R-FL) with 13 cosponsors), H.R. 3816 (Tom Udall (D-UT)) and S. 1615 (Hillary Clinton (D-NY) with 8 cosponsors).

**Levee Policy**—Consideration will continue of legislative proposals on hurricane-related levee reconstruction policy, on appropriate levels of flood control infrastructure, on the status of the nation's flood control structures, and on wetlands policy and wetlands restoration. Both the House Committee on Transportation and Infrastructure's Subcommittee on Water Resources and the Senate Committee on Environment and Public Works have held hearings and meetings on these issues. The ASFPM, represented by Rod Emmer, testified before the House Subcommittee on October 27th, and was represented by Doug Plasencia in a day-long discussion hosted by the Senate EPW Committee on October 20th.

While the House Committee may develop stand-alone legislation, the Senate EPW Chairman, James Inhofe (R-OK), has a strong preference for working within the framework of the regular Water Resources Development Act.

**Review of the Stafford Act**—There are indications from the House Committee on Transportation and Infrastructure's Subcommittee on Public Buildings, Economic Development and Emergency Management that a review of the Stafford Act could be undertaken in the spring. The Senate Homeland Security and Governmental Affairs Committee has indicated that it will review a number of Stafford Act matters when the Administration's study of the problems in the response to and recovery from Hurricanes Katrina, Rita, and Wilma is completed.

**Flood Insurance Reform**—If flood insurance reform legislation is not brought up during the short December session, it will continue to be considered in the next session. The

*[continued on page 12]*

## Washington Report (cont.)

House bill has already been reported out of the House Financial Services Committee (HR 4320) while the Senate bill has been largely developed in the Senate Banking Committee, but not yet introduced. Interest in the future solvency of the NFIP is strong, with focus on both expansion of mandatory coverage and reduction of some aspects of the “subsidy.” It is likely that the Senate Banking Committee will hold a hearing on “subsidy” issues in the next session because staff wish to develop more information before taking action.

**FY 2007 Budget Request and Appropriations**—The President’s budget requests for the departments and agencies in FY2007 will be released in early February. This kicks off the spring session of appropriations hearings. These involve testimony from agency officials, defending and explaining their budget requests to the Appropriations Subcommittees.

### Update on Coalitions

**Stafford Coalition**—The Stafford Coalition has met in the past month to discuss needed changes in the Stafford Act, particularly during recovery from the hurricanes. The Coalition has also discussed NFIP issues and the need for reauthorization of the Pre-Disaster Mitigation grant program. The Coalition will be sending a letter to the Senate leadership and to the Chair and Ranking Minority Member of the Committee on Homeland Security and Governmental Affairs asking that the Senate act on reauthorization in the December session.

**Map Coalition**—The Map Coalition is likely to meet in the near future to consider issues associated with the advisory flood maps FEMA has issued in Mississippi and expects to issue in Louisiana. The Coalition is also interested in the mapping needs and implications associated with any expansion of areas subject to mandatory purchase flood insurance requirements. The National Association of Home Builders, a member of the Map Coalition, has signaled concerns in a memorandum circulated to all Senate legislative assistants.

**USGS Coalition**—The USGS Coalition met in November with Robert Hirsch, Associate Director of the USGS for Water Resources, to discuss program and budget matters. There was considerable discussion of the importance of stream gage data and of adequate budgets for both the National Streamflow Information Program (NSIP) and the Cooperative Stream Gage program. In December, the Coalition will meet with two other Associate Directors, including Barbara Ryan, Associate Director for Geography.

**Streamgage Coalition**—On November 18th, the Streamgage Coalition met with Mark Limbaugh, Assistant Secretary of Interior for Water and Science, Jason Peltier, Deputy Assistant Secretary and the USGS’s Hirsch. Although there was receptivity to the need for increased funding for NSIP and for the Cooperative Streamgage program, it was clear that any increase would have to come from cuts in other Interior programs. The Coalition also met with Jason Freihage, USGS Examiner for the Office of Management and Budget (OMB), who also acknowledged the importance of streamgage data, particularly for flood prediction, protection, and mitigation. He made clear, however, the budgetary constraints.

**Hazards Caucus Alliance**—On November 1st, the Caucus Alliance sponsored a briefing for Capitol Hill staff on coastal flooding issues. Pam Pogue, Chair of ASFPM, moderated the panel presentation at a well-attended session. This was the third briefing sponsored by the Caucus Alliance this fall. The first was on hurricane hazards and the second on earthquake hazards.

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

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

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# Washington Report (cont.)

## GAO LOOKS AT CORPS' WATERS AND WETLANDS PROTECTION

In September the U.S. Government Accountability Office (GAO) released two reports examining how the U.S. Army Corps of Engineers is protecting waters and wetlands.

The first report examines the Corps' oversight of compensatory mitigation requirements, which provide for permittees to replace destroyed wetlands and other waters under Section 404 of the Clean Water Act. The GAO determined that the Corps does not adequately monitor or inspect compensatory mitigation projects, and often fails to incorporate into permits mitigation requirements that are sufficiently explicit to be enforceable in court.

> > > *Wetlands Protection: The Corps of Engineers does not have an Effective Oversight Approach to Ensure that Compensatory Mitigation is Occurring*, GAO-05-898, 47 pp., can be found at <http://www.gao.gov/new.items/d05898.pdf>.

In a second report, GAO found that Corps districts do not consistently (1) provide a full rationale for denying jurisdiction over certain waters, (2) record the acreage of waters determined to be non-jurisdictional, or (3) evaluate the natural functions that are lost.

The Corps' field offices maintain that they are following the administrative policy handed down from headquarters and EPA after the *SWANCC* Supreme Court decision [see article on page 7 of this issue], which instructed agency staff to stop applying CWA protections to "isolated" waters unless permission is obtained from headquarters. The GAO suggested that the Corps is not using its legal authority to protect those waters and wetlands that it can still protect after *SWANCC*.

> > > *Waters and Wetlands: Corps of Engineers needs to better Support its Decisions for not Asserting Jurisdiction*, GAO-05-870, 66 pp., can be accessed at <http://www.gao.gov/new.items/d05870.pdf>

## SUPPORT GROWS FOR BETTER STREAMGAGING

In September ten U.S. Senators wrote to Secretary of the Interior Gale Norton and to Joshua Bolten, Director of the Office of Management and Budget, requesting their support for increased funding for the U.S. Geological Survey's National Streamflow Information Program and Cooperative Water Program. The letter points out, as the ASFPM has stated repeatedly, that monitoring the water flow in rivers and streams is a key component of any system for collecting, cataloging, and applying information about water resources. This information, in turn, is vital to numerous federal responsibilities and programs, including understanding flood (and drought) potential and using this information to trigger effective responses, monitoring river health, projecting and identifying impacts of climate change, and planning for water demand as the population grows and concentrates in certain regions.

The letter suggests that the Administration's FY2007 budget request a dramatic increase in funding for the two USGS programs, to be introduced in increments over five years.

The ten Senators who signed the letter are Jim Bunning (R-KY); John Cornyn (R-TX); Larry Craig (R-ID); Pete Domenici (R-NM), Chairman of the Energy and Natural Resources Committee; Jim Jeffords (I-VT); Jon Kyl (R-AZ); Lisa Murkowski (R-AK), Chair of the Water and Power Subcommittee; Paul Sarbanes (D-MD); Gordon Smith (R-OR); and Jeff Bingaman (D-NM), the Ranking Minority Member on the Energy and Natural Resources Committee.

## FY 2006 PDM GRANT APPLICATIONS BEING ACCEPTED

The application period for grants under the Federal Emergency Management Agency's Predisaster Mitigation (PDM) program for FY2006 opened November 21, 2005 and closes March 3, 2006. The PDM program provides funds to states and communities for hazard mitigation planning and the implementation of mitigation projects before a disaster. PDM

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## Washington Report (cont.)

grants are awarded on a competitive basis and without reference to state allocations, quotas, or other formula-based allocation of funds. Congress has appropriated \$50 million for the FY 2006 PDM program.

Availability of PDM funds is dependent upon Congressional reauthorization of the program, expected in December. The deadline for having a FEMA-approved mitigation plan to be eligible to receive an FY 2006 PDM program project grant is April 14, 2006.

> > > Applicants must use the electronic grants (eGrants) management system at <http://portal.fema.gov/> to submit a PDM grant application. Guidance documents may be downloaded at <http://www.fema.gov/fima/pdm.shtm>.

### WATERSHED GRANTS AWARDED

Twelve local watershed coalitions in 12 states have been selected to receive U.S. Environmental Protection Agency grants totaling \$9 million to help protect and restore watersheds. These coalitions will join 34 others that have been selected over the past two years. The seed money helps foster partnerships for healthy watersheds and sustainable infrastructure.

The coalitions selected have set clear goals and made comprehensive watershed plans. This year's projects include attention to such floodplain management concerns as stream stabilization, culvert replacement, riparian vegetation restoration, habitat enhancement, and stormwater protection.

The grants are being awarded to these watersheds: Cheat River, West Virginia; Huff Run, Ohio; Lake Hopatcong, New Jersey; Little River, Tennessee; Presumpscot River/Casco Bay, Maine; Skagit River, Washington; Tangipahoa River, Louisiana; Trinity River/Lower Klamath River, California; Tuttle Creek Lake, Nebraska and Kansas; Upper Sevier River, Utah; Vermillion River, Minnesota; and Willamette River, Oregon.

> > > For more information about this year's selections or about the Targeted Watershed Grant program see <http://www.epa.gov/owow/watershed/initiative>.

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## LOUISIANA GETS NEW ELEVATION BENCHMARKS

The National Oceanic and Atmospheric Administration has published new elevations for St. Bernard, Cameron, and Calcasieu parishes in southern Louisiana. The newly published values will lower official elevations in these parishes and establish a new network of vertical controls to serve as benchmarks.

The elevations are part of an ongoing effort to improve the accuracy of survey benchmarks and ensure that they remain accurate for longer periods. This is a concern in many areas of the Gulf Coast where subsidence has occurred or whose relation to sea level is changing.

NOAA's National Geodetic Survey has been analyzing historical leveling data as well as new leveling and GPS surveys. They feed the data into updated scientific models to provide more accurate elevations on benchmarks in southern Louisiana.

Sessions have been held with parish officials and representatives of FEMA and the Corps of Engineers to explain the new benchmarks. NOAA officials note that it is critical that users of the elevation data understand how to use new technologies such as the Global Positioning System and NOAA's Continuously Operating Reference Stations to provide accurate elevation reference points in the region.

The new elevations and vertical control network are important for hurricane recovery, repair, and construction efforts. Accurate reference points will help ensure that evacuation routes and shipping lanes have appropriate clearance to avoid flooding and obstructions.

> > > For more information, see <http://www.publicaffairs.noaa.gov/releases2005/oct05/noaa05-r499-03.html>.



# State & Local Report

## VIRGINIA UPDATES COMMUNITY GUIDANCE

The Virginia Department of Conservation and Recreation recently completed the revision of the Virginia Floodplain Management Plan, which was originally published in 1991. The plan details the roles and responsibilities of federal, state, and local governments in implementing the state's flood control policies. The Plan is complemented by a "Citizen's Guide" and a "Local Official's Guide" that provide more practical aspects of implementation of the Plan and the necessary components of the Plan to address the needs of citizens and local officials.

DCR staff also have been updating and revising the program's Fact Sheets, also developed in the early to mid-1990s. These are one- or two-page descriptions of practical methods of implementing the National Flood Insurance Program standards at the local level. They address responsibilities of local floodplain administrators and help them understand and find ways to perform their duties. Twelve Fact Sheets are planned and more will be added as other issues emerge. Most of them will be ready early in 2006.

*[excerpted from **Floodplain Currents**, Summer 2005, p. 3]*

## GREEN BUILDING IN MASSACHUSETTS

Stoughton, Massachusetts, is the site of a newly opened "green" store, built for the furniture retailer, IKEA. When the 366,275 square foot building was proposed early in 2004, the Massachusetts Office of Coastal Zone Management saw that the project offered an opportunity to implement low impact development (LID) techniques in a high visibility site. Although the agency does not typically review and comment on projects far outside of the coastal zone, CZM and other members of the state's LID Working Group (a public-private partnership with diverse membership) approached IKEA company officials and encouraged "going green" with the new facility. They found that incorporating a green roof into the IKEA design could capture and filter up to 75% of the rooftop runoff, significantly reducing the land area needed for traditional stormwater management devices, meaning that 30% of the original site plan could remain undisturbed. In addition, a green roof's vegetation layer improves the energy performance of a building so that heating and cooling are more efficient. The new IKEA, with its 37,000 square foot green roof, opened on November 9.

>>> For more information about LID and CZM's Coastal Smart Growth Program, go to <http://www.mass.gov/czm/smartgrowth/index.htm>.

*[excerpted from December 2005 **CZ-Mail**]*

## LOUISIANA LOCALITIES GET HANDY REFERENCE

Earlier this year the Floodplain Management Section of the Louisiana Department of Transportation and Development finished compiling, reviewing, and editing the new Louisiana Floodplain Management Desk Reference. The production and distribution of the Desk Reference to the state's local floodplain administrators was a cooperative effort. The Federal Emergency Management Agency funded the reproduction of the inside pages, and the Louisiana Floodplain Management Association donated 250 sets of tabbed section dividers plus an equal number of three-ring notebooks. This partnership made possible the rapid dissemination of this essential document to the community officials who rely upon it for guidance in administering their floodplain management programs in accord with state and NFIP standards.

*[excerpted from **Floodwatch**, July 2005]*

# REFLECTIONS ON HURRICANES AND OTHER NATURAL DISASTERS

by **Jared Orsi**  
**Professor of History**  
**Colorado State University**

During the 1998 hurricane season I was in Chicago writing a book about the history of natural disasters. I could not help but notice that what was obvious to me—that natural disasters have a good deal of human history behind them—was anything but obvious to the wider public. As the *Chicago Tribune* editorialized, in the face of “Nature’s most violent displays of brute force,” humans “can do little but watch in awe the ‘great mischief’ of Mother Nature.” Two years later, I was living in the tinderbox known as the American West (the book was still not done), when the forests around Los Alamos, New Mexico, burst into flame after a controlled burn by the National Park Service didn’t stay controlled. Instead of blaming nature this time, the papers wanted a hanging. “The Park Service should hold its personnel accountable,” the *Denver Post* opined. “I find it hard to believe,” fumed the Los Alamos congressional representative, “that no one is held accountable. Didn’t someone make a mistake?”

As I write today, September 23, 2005, one of the worst hurricanes in history has just devastated the coastal regions of Louisiana and Mississippi, and another severe one is apparently bearing down on the Texas Gulf Coast. Yet again, we seek answers: Nature’s fury? God’s wrath? Malfeasance or at least incompetence on the part of responders—from emergency crews to the President of the United States? Although fingers point in many different directions, these explanations and the responses to the 1998 hurricanes and the Los Alamos fire share one thing: the assumption that something must go extremely wrong in order to produce an extreme tragedy. Nature must do something extraordinarily powerful, or human beings must make extraordinary mistakes. Although seemingly logical and very understandable given the scale of tragedy that results from natural disasters, this assumption is not borne out by historical evidence. It does not take a big and bad cause to produce a big and bad effect.

In the case of Los Alamos, the fire was caused by a complex of unfortunate but unremarkable mistakes and coincidences: the accumulation of ground fuel in the 1990s, the pending retirement of a park superintendent who favored use of fire as a tool in forest management, a drought that portended a bad fire season. All of these ordinary things conspired to add urgency in officials’ minds to the need for a burn in the spring of 2000. But there was more: an out-of-date protocol for prescribed burning that had been mistakenly posted on the internet, small mistakes in the admittedly imprecise science—no, guesswork—that goes into estimating fire safety conditions. And then there was the big mistake that came from the invisible problem of combining the wrong protocol with the small errors in the fire safety rating. Add to this a National Weather Service report that never got to park service officials. All of these conspired to lead officials to pick a very bad day for the fire. Finally there were the chaotic patterns of blowing wind and burning flames. Neither predictable, neither controllable.

From all these small, ordinary system failures—failures that can happen on any given day without any severe consequences—came a billion-dollar tragedy. The Secretary of Interior Bruce Babbitt likened it to a series of stones loosened from a mountainside. “Sometimes,” he said, “a rock is dislodged and nothing happens, but other times a rock is dislodged and it starts a cascading series of events [until] you have a landslide at the bottom.”

Hurricanes work similarly, though on a much larger scale. First, human beings with short memories and big plans for the future put a lot of stuff in harm’s way in the 20th century. South Florida, for example, enjoyed three decades between Hurricane Betsy in 1965 and Hurricane Andrew in 1992, and during that time, population and property values skyrocketed. This pattern has repeated itself across the country and around the globe, with the consequence that the

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## Reflections on Natural Disasters (cont.)

severity and frequency of natural disasters has increased steadily since the 1970s. The worldwide price tag for weather-related catastrophes in 1998 alone topped that of the entire decade of the 1980s. Humans may not cause the wind to blow or the ground to shake or the rain to fall (although even that is increasingly being called into question), but they do unquestionably shape the results that follow whenever the wind blows or the ground shakes or the rain falls.

Next the question is, how does all of that stuff get into vulnerable places? The answer is: through countless ordinary decisions and actions undertaken entirely innocently of their impact on hurricane vulnerability. When couples from the frigid upper Midwest dream of retirement on the Gulf Coast, the hurricane risk goes up a little. When the federal government makes home loans or finances highway construction in South Florida to promote economic growth or reward political support or whatever, the hurricane risk goes up. When coastal boosters advertise sunshine, boating, and golf but neglect to mention the periodic evacuations, the hurricane risk goes up.

The truth is there is a system in place—a system that has no designer or controller but plenty of participants. It is a system that rewards people for putting themselves and their property (and other people and their property) in dangerous places. These rewards are short-term but significant: return on investment, a nice vacation, insurance policies, a monthly paycheck, a government contract, a home loan, re-election. Most of the time it works safely, as people seeking these rewards retire, build, buy, and advertise. Each action is rational and carries no negative consequences for the actor. In combination, however, they are deadly. Like the rocks cascading down Babbitt's mountainside, they are individually benign, but in combination they put people in severe danger.

The last step in making a hurricane or any other natural disaster is the distribution of its effects. Women and children die in greater numbers than adult men in Third World earthquakes because they are disproportionately likely to be in homes and other poorly constructed buildings; adult men are more likely to find themselves in workplaces, government buildings, and other more solid structures when the ground shakes. Poor people have a harder time evacuating in the cases of floods and hurricanes because they lack good access to transportation and the extended social networks that allow them somewhere else to go. Even in something as simple as a heat wave, elderly people living alone invisibly roast to death in unairconditioned apartments and public housing units, cut off from family, friends, and neighbors, sometimes having locked the doors and windows for fear of danger from their crime-infested surroundings.

None of this is to deny the real and widespread suffering of middle- and upper-class people in the aftermath of disasters. Nor is it to suggest that anyone deliberately discriminates against these least among us such dire times. But it is inescapable that disasters are not equal opportunity killers. The people who are the most vulnerable every day of the year are also the most vulnerable in times of catastrophe. In that sense, we humans may not cause the wind to blow, but we do determine who gets hurt the most when it does.

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**Jared Orsi is the author of *Hazardous Metropolis: Flooding and Urban Ecology in Los Angeles* (University of California Press, 2004). He lists the following for further reading on this perspective.**

John Barry, *Rising Tide: The Great Mississippi Flood of 1927 and How It Changed America* (Simon and Schuster, 1997).

Kenneth Hewitt, ed., *Interpretations of Calamity from the Viewpoint of Human Ecology* (Allen & Unwin, 1983)

Ari Kelman, *A River and Its City: The Nature of Landscape in New Orleans* (University of California Press, 2003)

John McPhee, *Control of Nature* (Farrar, Straus, Giroux, 1989)

Charles Perrow, *Normal Accidents: Living with High-Risk Technologies* (Basic Books, 1984)

Ted Steinberg, *Acts of God: The Unnatural History of Natural Disaster in America* (Oxford University Press, 2000)

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## Reflections on Natural Disasters (cont.)

And when it's all over? First, we care. Federal money and charitable generosity flow freely. The American heart opens graciously and embraces those in need. Here is often when we are at our best as a society. Then, we repeat. So many people are so dependent on the ordinary system that it is inconceivable not to repair it. The ordinary has broken down, but in the face of the extraordinary, we can think of little else than restoring the comfortable, the familiar, the deadly. And so federal money and private generosity rebuild homes and other structures in dangerous places. We return to marginalizing poor neighborhoods and isolating the elderly. In the process of nobly rebuilding the best of what has been damaged, we also rebuild its dark sides as well. Finally, we forget. Years or decades elapse between category-5 storms, 7-point earthquakes, and 100-year floods. We advertise dangerous places. We weaken or evade building codes, hazard zoning ordinances, and other nuisances of doing businesses. We demand lower insurance rates. And then . . .

The *Trib* was wrong: there is plenty we can do in the face of the brute force of Mother Nature. Still, it is hard to write that on this day. Hard to write about the ordinary in the face of the extraordinary. Hard to write about innocent decisions of the past while people are hungry, homeless, and grieving. Hard to write about the lessons we should learn from one hurricane while another is already threatening. I do pray that we learn those lessons—that natural disasters are very much of our own making and that we make them through the ordinary decisions and actions of our lives, decisions over which we have much control. But I pray that it does not take a second hurricane in one month to teach us. □

*[reprinted from Colorado Water, vol. 22, no. 5, pp. 21–23,  
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## NEED FOR DAM SAFETY PROGRAMS SHOWN

Nervous officials in Taunton, Massachusetts, monitored several dams nearing failure after a weekend-long extreme storm in mid October. National media coverage (television, radio and print), along with reflections on the effect of Hurricane Katrina on the flood protection infrastructure in New Orleans brought attention to the need for stronger state and federal dam safety policies and programs.

The Association of State Dam Safety Officials (ASDSO) is urging federal lawmakers, governors, and state legislative leaders to study the lessons of Hurricane Katrina and the Northeastern storm, which also resulted in overtopping or damage to several dams in New Hampshire and New Jersey and the evacuation of some residents. ASDSO recommends to state leaders that they take a serious look at the strength of dam safety policies and programs within state government and make it a priority to address the most deficient dams under state regulation. Of the nation's 79,000 plus dams, 95% are regulated by the states. Of these, about 60% are privately owned. Every state but Alabama has a dam safety regulatory program.

According to ASDSO, regulation including inspections alone does not make dams safe. Owners have to be responsible and make needed improvements. States should ask themselves whether they have adequately budgeted and staffed dam safety regulatory departments.

In addition to urging states to keep state dam safety agencies strong, ASDSO endorses passage of legislation to provide needed federal funding to upgrade and repair or remove dams in all states. Coupled with a state dam rehabilitation funding program, needed dam repairs could finally be addressed before events like the one in Massachusetts take place.

> > > For more information see the press release and other information on dam safety at <http://www.damsafety.org>.

# Publications, Software, AV & the Web

*Disaster Response and Appointment of a Recovery Czar: The Executive Branch's Response to the Flood of 1927* was produced to provide contextual and historical background for the situation faced by the United States in the aftermath of the 2005 hurricanes. After the Mississippi River floods of 1927, the federal response was essentially an executive branch response. President Calvin Coolidge created a quasi-governmental commission that included members of his Cabinet and the American National Red Cross. This commission encouraged the public to donate funds to the relief effort. It also gave Secretary of Commerce Herbert Hoover near-absolute authority to organize and oversee its response. Hoover used this authority to weave together federal resources, American National Red Cross volunteers, and the private sector to carry out the relief and recovery program. Kevin R. Kosar. 2005. 25 pp. RL33126. Congressional Research Service. Available for downloading at <http://www.fas.org/sgp/crs/misc/RL33126.pdf>.

“Watershed Funding” is a new website launched by the Sustainable Finance Team within the U.S. Environmental Protection Agency’s Office of Wetlands, Oceans and Watersheds. The pages contain links to tools, databases, and resources about grants, funding, and fundraising. The intent is to help nonprofit watershed organizations, state and local governments, and funding entities (such as foundations) more easily find information so that they can effectively obtain and invest resources to improve watershed health. See <http://www.epa.gov/owow/funding.html>.

Coastal Smart Growth is a new website of the Massachusetts Coastal Zone Management program that features information on planning, technical, regulatory, and outreach tools for real-world growth management that protects coastal resources. It is based on the premise that historic and current development patterns are the common thread among stormwater runoff that pollutes shellfish beds and swimming areas, sprawling development that shrinks habitats and displaces working waterfront businesses, and water use for expanding lawns that leads to rivers’ running dry. Go to <http://www.mass.gov/czm/smartgrowth/index.htm>.

*Understanding and Responding to Climate Change* is a booklet from the National Academies that highlights the themes from its many reports that advise agencies working on understanding changing climate, documenting its impacts, and developing effective response strategies. Available at [http://dels.nas.edu/basc/climate-change\\_final.pdf](http://dels.nas.edu/basc/climate-change_final.pdf).

*Community Riparian and Wetland Guidance* is a 16-page color brochure that outlines, for the local user, reasons for and ways to protect riparian areas for multiple purposes, including flood mitigation, erosion control, habitat protection, and achieving stormwater quality goals. The brochure defines riparian zones and wetlands and their functions; delineates five principles of riparian and wetland protection; illustrates the critical components of an effective setback ordinance; answers commonly raised questions about setback ordinances; and gives guidelines for plan submission and for considering riparian setback variances. 2005. 16 pp. Produced by the U.S. Environmental Protection Agency’s Cleveland Office, the Cuyahoga Soil and Water Conservation District, the Natural Resources Conservation Service, the Northeast Ohio Areawide Coordinating Agency, and the Ohio EPA. Funding provided by the EPA’s Great Lakes National Program Office. The publication is available at [http://www.cuyahogaswcd.org/RiparianWetlands\\_Guide\\_8%20x11in.pdf](http://www.cuyahogaswcd.org/RiparianWetlands_Guide_8%20x11in.pdf).

## More Resources on the 2005 Hurricanes

*Hurricane Katrina: Providing Oversight of the Nation's Preparedness, Response, and Recovery Activities* outlines the U.S. Government Accountability Office's strategy for establishing and maintaining an overview of the various issues that relate to responsible, efficient recovery from the 2005 hurricanes. Among the concerns that will be addressed by GAO in future reviews are public health; fraud, waste, and abuse; telecommunications; environmental impacts; and energy. 2005. 25 pp. GAO 05-105-3T. Available at <http://www.gao.gov/new.items/d051053t.pdf>.

"The ABCs of Returning to Flooded Buildings," and "Initial Restoration of Flooded Buildings" are two short Recovery Advisories issued by the Federal Emergency Management Agency to help people cope with the flood-related impacts their homes and businesses face after the 2005 hurricanes. Both advisories are written for the layperson, include photographs, instructions, and sources of further information, and can be easily reproduced and used as handouts. These are concise summaries of the most important pieces of information for flood-damaged buildings. Soon to be on the FEMA website, the documents can now be downloaded in pdf format from the ASFPM website at [http://www.floods.org/PDF/FEMA\\_ABCsReturnFloodBldg.pdf](http://www.floods.org/PDF/FEMA_ABCsReturnFloodBldg.pdf) and [http://www.floods.org/PDF/FEMA\\_InitialRestorationFloodBldg.pdf/](http://www.floods.org/PDF/FEMA_InitialRestorationFloodBldg.pdf/).

"The Macroeconomic and Budgetary Effects of Hurricanes Katrina and Rita," compiles reports and testimony prepared by the Congressional Budget Office on the effects of Hurricanes Katrina and Rita. Among other issues, it examines the effect of the hurricanes on the federal deficit, impacts on national economic growth, and options for budgeting in advance for future events of this magnitude. 2005. 23 pp. The report is available at <http://www.cbo.gov/publications/collections/hurricanes.cfm>.

*Hurricanes Katrina and Rita: Preliminary Observations on Contracting for Response and Recovery Efforts* acknowledges the large role that the private sector plays as a partner with the federal government in providing goods and services to aid response and recovery from large natural disasters. This report discusses the procedures used by federal agencies in obtaining private sector assistance. 2005. 20 pp. GAO 06-246T. U.S. Government Accountability Office. Available at <http://www.gao.gov/new.items/d06246t.pdf>.

USGS Hurricane Wilma Impact Studies are compiled on the website of the U.S. Geological Survey at <http://coastal.er.usgs.gov/hurricanes/wilma/>.

"Lessons for Post-Katrina Reconstruction: A High-Road vs. Low-Road Recovery," a briefing paper prepared by the Economic Policy Institute, is posted at <http://www.epinet.org/briefingpapers/166/bp166.pdf>.

"Highlights of the Louisiana Recovery and Rebuilding Conference" collects the reports of the gathering November 10–12 in New Orleans of more than 400 Louisiana residents, public officials, community leaders, and representatives from local and state organizations and religious and civic groups. The American Planning Association and the American Institute of Architects collaborated to sponsor the conference. Available at <http://www.planning.org/louisianarecovery/index.htm>

"Charting the Course for Rebuilding a Great American City" is the American Planning Association report by a volunteer team of planners focusing on the City of New Orleans' planning capacity. The report provides short- and long-term recommendations for improving the city's planning functions to expedite rebuilding. Download at <http://www.planning.org/katrina/pdf/rebuildingreport.pdf>.



# Calendar

*See more flood-related meetings, conferences, and training  
at <http://www.floods.org/calendar.htm>.*

**January 30—February 2, 2006:** DIGITAL HAZARD DATA (E234), Emergency Management Institute, Emmitsburg, Maryland. Contact (800) 238-3358 or see <http://www.training.fema.gov/EMIweb/>.

**January 30—February 3, 2006:** MANAGING FLOODPLAIN DEVELOPMENT THROUGH THE NATIONAL FLOOD INSURANCE PROGRAM (E273), Emergency Management Institute, Emmitsburg, Maryland. Call (800) 238-3358 or see <http://www.training.fema.gov/EMIweb/>.

**January 31—February 2, 2006:** NATIONAL DAM SAFETY PROGRAM: WEST REGIONAL SEMINAR ON HYDRAULICS OF SPILLWAYS, Las Vegas, Nevada. Sponsored by the Association of State Dam Safety Officials. Contact ASDSO at 450 Old Vine St., Lexington, KY 40507, (859) 257-5140 or see <http://www.damsafety.org>.

**February 11–16, 2006:** MIDYEAR CONFERENCE OF THE NATIONAL EMERGENCY MANAGEMENT ASSOCIATION, Washington, D.C.. Contact Karen Cobuluis at (859) 244-8143 or [kcobuluis@csg.org](mailto:kcobuluis@csg.org) or see <http://www.nemaweb.org>.

**February 13–15, 2006:** NINETEENTH ANNUAL CONFERENCE OF THE MICHIGAN STORMWATER-FLOODPLAIN ASSOCIATION, Acme, Michigan. Contact Les Thomas at (517) 335-3448 or see <http://mi.floods.org/>.

**February 20–24, 2006:** ENVIRONMENTAL CONNECTION '06, Long Beach, California. Sponsored by the International Erosion Control Association. Contact the IECA at (970) 879-3010 or see <http://www.ieca.org>.

**March 8–9, 2006:** EQUAL PARTNERS: ANNUAL CONFERENCE OF THE ILLINOIS ASSOCIATION FOR STORMWATER AND FLOODPLAIN MANAGEMENT, Tinley Park, Illinois. See <http://www.illinoisfloods.org/conferences.html>.

**March 21–23, 2006:** SEVENTH ANNUAL CONFERENCE OF THE ASSOCIATION OF MONTANA FLOODPLAIN MANAGERS, Helena, Montana. See <http://www.mtfloods.org/>.

**March 27–21, 2006:** RESIDENTIAL COASTAL CONSTRUCTION (E386), Emergency Management Institute, Emmitsburg, Maryland. Contact (800) 238-3358 or see <http://www.training.fema.gov/EMIweb/>.

**April 2–6, 2006:** EIGHTH FEDERAL INTERAGENCY SEDIMENTATION CONFERENCE AND 3RD FEDERAL INTERAGENCY HYDROLOGIC MODELING CONFERENCE, Reno, Nevada. Sponsored by the Subcommittees on Sedimentation and Hydrology of the Federal Advisory Committee on Water Information. Contact Doug Glysson, USGS, 412 National Center, Reston, VA 22092, (703) 648-5019; [gglysson@usgs.gov](mailto:gglysson@usgs.gov) or see [http://water.usgs.gov/wicp/acwi/sos/conf/call\\_papers\\_extended\\_42005.pdf](http://water.usgs.gov/wicp/acwi/sos/conf/call_papers_extended_42005.pdf).

**April 5–7, 2006:** PARTNERING FOR FLOODPLAIN MANAGEMENT: JOINT NORTH CAROLINA/SOUTH CAROLINA FLOODPLAIN CONFERENCE, North Myrtle Beach, South Carolina. Sponsored by the North Carolina Floodplain Management Association and the South Carolina Association of Hazard Mitigation. See <http://www.ncafpm.org/>.

- April 5–7, 2006:** SAFETY EVALUATION OF EXISTING DAMS: MIDWEST REGION SEMINAR, Indianapolis, Indiana. Sponsored by the Association of State Dam Safety Officials. Contact ASDSO at 450 Old Vine St., Lexington, KY 40507, (859) 257-5140; [info@damsafety.org](mailto:info@damsafety.org) or see <http://www.damsafety.org>.
- April 10–14, 2006:** NATIONAL HURRICANE CONFERENCE, Orlando, Florida. Numerous sponsors. See <http://www.hurricane.meeting.com/2006%20NHC%20Call%20for%20Papers.pdf>.
- April 24, 2006:** SPRING CONFERENCE OF THE TEXAS FLOODPLAIN MANAGEMENT ASSOCIATION, Abilene, Texas. Contact TFMA at (512) 892-2459 or [tfma@earthlink.net](mailto:tfma@earthlink.net).
- May 1–4, 2006:** ADVANCED HAZUS-MH FOR FLOOD (E172), Emergency Management Institute, Emmitsburg, Maryland. Call (800) 238-3358 or see <http://www.training.fema.gov/EMIweb/>.
- May 7–9, 2006:** WEST REGIONAL CONFERENCE OF THE ASSOCIATION OF STATE DAM SAFETY OFFICIALS, Overland Park, Kansas. Contact ASDSO at 450 Old Vine St., Lexington, KY 40507, (859) 257-5140; [info@damsafety.org](mailto:info@damsafety.org) or see <http://www.damsafety.org>.
- May 7–10, 2006:** NATIONAL FLOOD CONFERENCE, Philadelphia, Pennsylvania. Contact Catherine King at [CatherineR.King@associates.dhs.gov](mailto:CatherineR.King@associates.dhs.gov) or see <http://www.fema.gov/nfip/2005conf.shtm>.
- May 13–18, 2006:** CHARTING A NEW COURSE: SHAPING SOLUTIONS FOR THE COAST, St. Pete Beach, Florida. Sponsored by The Coastal Society. See <http://www.thecoastalsociety.org/conference.html>.
- May 17–19, 2006:** MEETING STAKEHOLDER INTERESTS: THIRD I-REC INTERNATIONAL CONFERENCE ON POST-DISASTER RECONSTRUCTION, Florence, Italy. Sponsored by the University of Florence and i-Rec at the University of Montreal. Contact Cassidy Johnson at [cassidy.johnson@sympatico.ca](mailto:cassidy.johnson@sympatico.ca) or see <http://www.grif.umontreal.ca/pages/irechomepage.html>.
- May 21–25, 2006:** WORLD ENVIRONMENTAL CONGRESS, Omaha, Nebraska. Sponsored by the Environmental Water and Resources Institute of the American Society of Civil Engineers. See <http://www.asce.org/conferences/ewri2006/abstract.cfm>.
- June 11–16, 2006:** FLOODPLAIN MANAGEMENT CROSSROADS: 30TH ANNUAL CONFERENCE OF THE ASSOCIATION OF STATE FLOODPLAIN MANAGERS, Albuquerque, New Mexico. Contact the ASFPM at (608) 274-0123, [asfpm@floods.org](mailto:asfpm@floods.org) or see <http://www.floods.org>.
- July 10–13, 2006:** BASIC HAZUS-MH (E313), Emergency Management Institute, Emmitsburg, Maryland. Contact (800) 238-3358 or see <http://www.training.fema.gov/EMIweb/>.
- July 24–27, 2006:** STORMCON: THE NORTH AMERICAN SURFACE WATER QUALITY CONFERENCE & EXPOSITION, Denver, Colorado. Sponsored by StormCon and *Stormwater* Magazine. For information, see <http://www.forester.net/stormcon/nashville/index.html>.
- July 31—August 3, 2006:** MANAGING FLOODPLAIN DEVELOPMENT THROUGH THE NATIONAL FLOOD INSURANCE PROGRAM (E273), Emergency Management Institute, Emmitsburg, Maryland. Contact (800) 238-3358 or see <http://www.training.fema.gov/EMIweb/>.

**August 14–17, 2006:** 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/>.

**August 14–17, 2005:** ADVANCED HAZUS-MH FOR FLOOD (E172), Emergency Management Institute, Emmitsburg, Maryland. Call (800) 238-3358 or see <http://www.training.fema.gov/EMIweb/>.

**August 21–25, 2006:** RETROFITTING FLOODPRONE RESIDENTIAL BUILDINGS (E279), Emergency Management Institute, Emmitsburg, Maryland. Contact (800) 238-3358 or see <http://www.training.fema.gov/EMIweb/>.

**August 26–27, 2006:** ENGINEERING ESSENTIALS FOR WETLANDS AND WETLAND REGULATIONS (NCES 8271), Denver, Colorado. Sponsored by the University of Colorado at Denver Continuing Engineering Education Center. Call 303-556-4907 or see <http://www.cudenver.edu/engineer/cont>.

**August 27—September 1, 2006:** INTERNATIONAL DISASTER REDUCTION CONFERENCE 2006, Davos, Switzerland. Abstracts are due January 31, 2006. Contact Conference Secretariat, IDRC Davos 2006, SLF, Fluelastrasse 11, CH-7260 Davos Dorf, Switzerland; +41 (0)81 417 02 25 or see <http://www.davos2006.ch/1stannouncement.html>.

**September 5–9, 2006:** ANNUAL CONFERENCE OF THE FLOODPLAIN MANAGEMENT ASSOCIATION, San Diego, California. See <http://www.floodplain.org>.

**September 10–14, 2006:** DAM SAFETY 2006, Boston, Massachusetts. Sponsored by the Association of State Dam Safety Officials. Abstracts are due February 10, 2006. Contact ASDSO, 450 Old Vine St., Lexington, KY 40507 or see <http://www.damsafety.org>.

**September 18–20, 2006:** SIXTEENTH ANNUAL FALL CONFERENCE OF THE OKLAHOMA FLOODPLAIN MANAGERS ASSOCIATION, Norman, Oklahoma. Contact OFMA, P.O. Box 8101, Tulsa, OK 74101-8101; or see <http://www.okflood.org>.

**September 18–21, 2006:** 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 27–29, 2006:** ANNUAL CONFERENCE OF THE COLORADO ASSOCIATION OF STORMWATER AND FLOODPLAIN MANAGERS, Glenwood Spring, Colorado. Contact CASFM Conference Program Chair David Bennetts, Urban Drainage & Flood Control District, 2480 W. 26th Ave., Suite #156B, Denver, CO 80211, (303) 455-6277, [bennetts@udfcd.org](mailto:bennetts@udfcd.org) or see <http://www.casfm.org/>.

**December 9–13, 2006:** FORGING THE NATIONAL IMPERATIVE: THIRD COASTAL AND ESTUARINE HABITAT RESTORATION CONFERENCE, New Orleans, Louisiana. Sponsored by Restore American Estuaries. Abstracts and proposals for conference sessions are due February 15, 2006. For more information, see <http://www.estuaries.org/conference>.

**June 3–8, 2007:** 30TH ANNUAL CONFERENCE OF THE ASSOCIATION OF STATE FLOODPLAIN MANAGERS, Norfolk Virginia. Contact the ASFPM at (608) 274-0123 or [asfpm@floods.org](mailto:asfpm@floods.org) or see <http://www.floods.org>.



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