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ASSOCIATION OF STATE FLOODPLAIN MANAGERS, INC.

## NATIONAL RESEARCH COUNCIL EXAMINES FLOOD MAPS

A two-year study has commenced at the National Research Council (part of the National Academies) to assess the accuracy of flood maps produced for the National Flood Insurance Program under direction of the Federal Emergency Management Agency. The NRC has appointed a panel of scientists, engineers, and practitioners that will examine the current methods of constructing FEMA flood maps and the relationship among the various study methods (detailed study, limited detailed study, automated approximate analysis, and redelineation), the accuracy of the predicted flood elevations, and the accuracy of predicted flood inundation boundaries. The study will investigate the impact on map accuracy of several variables inherent in the mapping process: the accuracy of digital terrain data, hydrologic uncertainties in discharge information, and uncertainties in coastal flood elevations.

A second study component will be an examination of the economic impacts of inaccuracies in the flood elevations and floodplain delineations in relation to the risk class of the area being mapped (based on the value of development and number of inhabitants in the risk zone).

The NRC will make recommendations to FEMA in three areas: (1) cost-effective improvements to FEMA's study and mapping methods; (2) ways to better quantify and communicate the accuracy of FEMA flood maps; and (3) how to better manage the geospatial data produced by flood studies and integrate it with other national hydrologic information systems.

The Co-Chair of the Association of State Floodplain Managers' Mapping and Engineering Standards Committee, J. William Brown, has been named to the NRC committee. He is the Assistant City Engineer for Greenville, South Carolina, where he heads the Environmental Engineering Bureau and, among other duties, administers both the NFIP and National Pollution Discharge Elimination System activities. He is the past chair of the Illinois Association for Floodplain and Stormwater Management. The 13-member NRC committee also includes three other ASFPM members: Wendy Lathrop, Cadastral Consulting; David F. Maune, Dewberry and Davis; and Spencer Rogers, North Carolina Sea Grant.

>> A full list of the provisional committee, along with a description of the project, can be found at http://www8.nationalacademies.org/cp/committeeview.aspx?key=48776.

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A related, but more narrowly focused study was just completed by the NRC in a short time frame at Congress's request, in order to be available for the 2007 budget appropriations process this

spring. Congress and others have been concerned that underlying base map information now available for much of the nation is not adequate to support the new digital maps being created under FEMA's Map Modernization initiative. The Committee's report, *Base Map Inputs for Floodplain Mapping*, by the NRC's Committee on Floodplain Mapping Technologies, examined two layers of floodplain mapping: base map imagery and base map elevation. The committee concluded that there is

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# from the Chair

### Pamela Mayer Pogue, CFM

Hurricane Katrina struck the summer I became Chair of the ASFPM. One of the most horrific natural disasters of our time, it severely affected the Gulf Coast, but I would submit that it also had at least some impact on every state in this country. I can't help but reflect on the past 20 months and inevitably compare whether or not we are better off now than we were then.

During those months, the ASFPM has provided testimony in more than a dozen Congressional hearings, been interviewed on local and national television and radio and in news articles; assisted in writing countless pieces of legislation; met with innumerable members of Congress and their staffs; and presented and discussed the policy and program issues associated with the 2005 catastrophes with our members, chapters, and partner organizations. We played a critical role in a "midcourse change" that will set the direction for how this nation identifies flood risk. The ASFPM committee chairs and members have drafted a over a half-dozen white papers that address the technical and policy issues related to reducing the impacts we suffer from flood loss. Four of them have been formally adopted by the Board and others are on our website so that members and others can provide their input on the preliminary ideas they contain. We have been involved in facilitating national policy forums, summits, workshops, and press conferences. Yet in the past 20 months what has changed in how the nation manages flood risk? Despite our own efforts and those of the lead federal agencies and others, the answer is, sadly, very little.

Yes, Katrina demonstrated, in high definition, that the NFIP was ill equipped to handle a catastrophic disaster. But was the NFIP designed to do that? We know that it was not—just as we know that there will be more catastrophic disasters. We are all familiar with the dire predictions of the future impacts of global climate change. Are we also familiar with just how much more we have at stake in terms of the denser and more costly development invested along our coasts? Can we afford to manage floodplains and flood risk in the same way we always have? If we are to truly make a difference, a dramatic shift in our paradigm for coping with flooding is sorely needed.

We need to change the nation's top-down model of flood risk management. States should become the new focal point for managing flood risk. The logic behind this is that in order to more effectively manage and reduce flood risk we must rely on authorities that are reserved to the states under the U.S. Constitution, namely land use management, authority for adopting building codes, and local planning for development, mitigation, and resource protection.

This upcoming year will provide us with a critical opportunity to instigate change. We have the chance to reform the National Flood Insurance Program (NFIP) in order to more holistically and comprehensively manage floodplains in this country. In my opinion, in order for the ASFPM to successfully take on this critical national challenge we must accomplish at least two things. First, we must jump out of our floodplain sandbox and enlist the support of our "nontraditional" partners and stakeholders. We must reach out and form strong alliances with those agencies, organizations, and initiatives that represent, for example, land preservation, open space, and conservation (The Nature Conservancy, Save Our Wetlands, The Land Trust Conservancy, Save the Bay, state and local land trusts); preservation of habitats and open space (State Departments of Environmental Management, Sierra Club, National Wildlife Foundation, state and local conservation boards); and water resource and quality issues (State Water Boards, Water Resource Associations, watershed interest groups), to name but a few. We must work with these folks not just at the national level, but especially at the state and local levels. At present, we are working with the national representatives from the private insurance sector toward consensus on reform issues. Who else can we work with in the upcoming year? What alliances would help us shift the status quo in how this nation manages flood risk?

A second imperative we must accomplish in order to successfully reform the NFIP is for us as ASFPM members to more closely align our efforts with our 25 (soon to be 28?) state chapters and also all state floodplain management associations. Although it is national policy that is at stake, [continued on page 5]



# No Adverse Impact Floodplain Management

No Adverse Impact (NAI) floodplain management is a managing principle developed by the Association of State Floodplain Managers to address the shortcomings of the typical local floodplain management program. Rather than depending upon minimum requirements of federal programs, the NAI approach provides tools for communities to provide a higher level of protection for their citizens and to prevent increased flooding now and in the future. In 2003, ASFPM published *No Adverse Impact: A Toolkit for Common Sense Floodplain Management*.

The Coastal Services Center of the National Oceanic and Atmospheric Administration recently funded the ASFPM to develop a coastal version of this "toolkit." *No Adverse Impact (NAI) in the Coastal Zone* is now available on the ASFPM website at <a href="http://www.floods.org/NoAdverseImpact/coastal.asp">http://www.floods.org/NoAdverseImpact/coastal.asp</a>.

Like the *NAI Toolkit*, the *Coastal NAI Handbook* is organized under seven "building blocks" (hazard identification and mapping, planning, regulations and development standards, mitigation, infrastructure, emergency services, and education and outreach). The handbook provides information on "basic," "better," and "NAI" levels of effort associated with each of these tools.

In the *Coastal NAI Handbook*, we have attempted to clearly distinguish between "better" and NAI approaches. "Better" goes beyond basic national minimum standards. The NAI level for each tool focuses on how to avoid adverse consequences that could negatively affect other properties or coastal resources.

We would like to acknowledge Pam Pogue, Mark Mauriello, Rod Emmer, J. Philip Keillor, Jacquelyn Monday, and Trudy Bell for assistance in developing much of the content. We also thank those that submitted comments on all the previous drafts—they were greatly appreciated.

Special thanks go to Margaret Davidson, director of NOAA's Coastal Services Center, for funding this project. Keelin Kuipers and Doug Harper, both of NOAA, did an excellent job of providing project oversight and coordinating NOAA's comments on the drafts.

In addition to the document itself, we are developing case studies that demonstrate NAI concepts. The handbook is intended to be a "living" document and we will post periodic updates to it on our website as we receive additional comments and add case studies. We are, in particular, interested in state model ordinances or community zoning ordinances that specifically address coastal hazards and include NAI principles.

To help communities implement NAI principles, the ASFPM has developed a companion training program that consists of a one-day workshop. People interested in hosting a workshop should contact the ASFPM Executive Office at (608)274-0123.

>>> 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 <a href="http://www.floods.org">http://www.floods.org</a>.

### **ASFPM'S LARSON HONORED**

The decades-long contribution to floodplain management made by Larry A. Larson, Executive

Director of the Association of State Floodplain Managers, was recognized in March when he was awarded the Lifetime Achievement Award of the Illinois Association for Floodplain and Stormwater Management. This, the group's highest honor, is reserved for outstanding, enduring work that has made a noticeable, visual impact on floodplain and stormwater management throughout the State of Illinois. Although Larson is not an Illinois resident, the state nevertheless has benefitted hugely from his constant work on the national scene, especially as it has influenced federal programs that affect the state (such as the NFIP's Community Assistance Program, hazard mitigation grants, and Map Modernization), and in the founding of the state's professional association. The IAFSM history notes that,



In the Spring of 1986, Larry Larson, Executive Director of ASFPM, was invited to speak to a conference on, among other things, creation of a state association of floodplain managers. In his talk, he asked the assembly, "Sure, you have some great state programs, but do you want to rely on Springfield and Washington, D.C., to tell you what you need?"

After the conference adjourned, 50 or so attendees met to discuss the idea of a state association. . . . The rest is history.

News & Views readers know that Larson (shown above, receiving the award from French Wetmore) was there when the ASFPM was founded in Chicago 30 years ago, was elected its third Chair, and served as the volunteer Executive Director for many years, until his current, supposedly part-time, position was created. Under his leadership, the organization expanded in size, scope, and stature to become a force on Capitol Hill, among many federal agencies, and throughout all the states. Beyond that, however, Larson's personal commitment and vision and apparently limitless energy have made him a floodplain management force in his own right. Illinois considers itself one of the lucky beneficiaries of his work. Noted Paul Osman, Chair of the IAFSM's Awards Committee, "Larry's thumbprints are all over Illinois."

### NRC Reports on Flood Maps (cont.)

sufficient two-dimensional imagery available from digital "orthophotos"—aerial and satellite photographs—to meet FEMA's standards for mapping landmarks such as streams, roads, and buildings that show the necessary context for flood maps. The committee also endorsed a program known as Imagery for the Nation, a joint federal-state effort to keep orthophoto databases current.

However, the committee reports, there is inadequate elevation information available to map the shape of the land surface in three dimensions, which is critical in determining the likely direction, velocity, and depth of flood flows. In fact, most of the publicly available elevation data is more than 35 years old, with 1970 being the average date of origin in the U.S. Geological Survey's National Elevation Dataset. Land development, urban expansion, and subsidence since then have significantly altered the surface.

The committee called for a new elevation mapping program, which it named Elevation for the Nation, to parallel the existing Imagery for the Nation concept. The program should employ light detection and ranging technology (LiDAR), to acquire elevation data. LiDAR is the only technology to produce elevation data accurate within one to two feet in most terrain, including the bare earth beneath vegetation, and that meet FEMA's elevation accuracy requirements. The committee found striking agreement among federal agencies representatives that LiDAR is the current technology of choice for measuring surface elevation.

The committee emphasized that a seamless nationwide elevation dataset would have many applications beyond FEMA's flood insurance maps.

>>> The report can be read at http://books.nap.edu/catalog.php?record\_id=11829.

### from the Chair (cont.)

the NFIP is a local issue because state and local floodplain managers are the ones charged with implementing sound floodplain management. It is our responsibility to ensure that our stakeholders and partners understand that reform is in the interest of more accurately identifying flood risk, advocating for higher regulatory standards, implementing mitigation programs that make a difference, and providing more equitable or actuarial insurance in special flood hazard areas. If we are to make a difference in helping to transform the NFIP into a program that will truly reduce flood damage and protect floodplain resources, as state chapter members we must contact, and especially educate, our state legislators.

As usual, the ASFPM has been extremely busy. I would like to thank a hard-working and talented group of individuals for giving up a weekend plus a couple of days to work diligently at this year's ASFPM Administrative Council (ADCO) meeting held in Norfolk, Virginia, the last weekend in March. Each year the Chair selects a few people from the leadership of ASFPM plus the Executive Director and Deputy Director to spend a weekend to address the accomplishments toward the previous year's goals and objectives, draft the upcoming goals and objectives, review the annual budget, and tackle the first cut of critical issues/projects/initiatives for the coming year for ASFPM Board consideration. This year's ADCO was productive and I thank Al Goodman, Greg Main, Siavash Beik, Chad Berginnis, Doug Plasencia, Dale Lehman, Larry Larson, and George Riedel. The draft Goals and Objectives for 2007-2008, for the first time, incorporate up-front the ongoing hard work and various initiatives of the ASFPM Policy Committees. I have no doubt they will further the ASFPM cause to reduce the nation's flood losses. This year's goals and objectives will be discussed at the annual Board meeting this June before they are adopted and then will be presented to you by your new Chair at the ASFPM 2007 annual meeting.

I hope that this next year you will all take an active part in helping to change the way in which this nation manages flood risk. We all have a very important role. Stay tuned, be involved, and remain passionate! See you in Norfolk.

# Charting the Course: New Perspectives in Floodplain Management

### 31st Annual ASFPM Conference

June 3-8, 2007

Norfolk, Virginia



- Download the conference brochure, schedule, registration information, and exhibitors' forms at http://www.floods.org/norfolk. The discount for early registration closes on April 15. Continuing education credits (CECs) will be granted.
- The Silent Auction needs your tax-deductible items, to benefit the ASFPM Foundation. Follow the instructions at <a href="http://www.floods.org/Conferences">http://www.floods.org/Conferences</a>,%20Calendar/silentauction2007.asp.
- Sign up for the Sunday Golf Scramble at http://www.floods.org/Conferences,%
   20Calendar/golf07.asp.
  - Exhibitors can use the regular registration form, and get a discount until April 15.
  - Sponsors see http://www.floods.org/Conferences,%20Calendar/norfolk.asp#sponsors.

# TAMARISK INVASION FLOODPLAIN MANAGERS BEWARE!

Kevin Eubanks, CFM Clark County Regional Flood Control District Matt Baird, CFM and Harshal Desai, CFM PBS&J

In January 2005, the Virgin River in the vicinity of Mesquite, Nevada, experienced a major flood nearing the magnitude of the 100-year event. In some areas the flooding limits were wider than the 100-year Special Flood Hazard Area (SHFA) as mapped for the National Flood Insurance Program. The flood caused more than \$1 million damage to public infrastructure and damaged about 80 homes, many of which were outside the regulatory floodplain.

Why? Although the floodplain limits fluctuate due to natural cyclic (geomorphologic) patterns that in turn are exaggerated by human influence, there is another culprit at work. The Virgin River flooded because of nearly complete domination of the floodplain environment by the invasive non-native plant species tamarisk (*Tamarix ramosissima*), also known as "salt cedar."

Since its introduction to the United States in the 1850s, tamarisk has invaded almost all watercourses and other wetland habitats throughout the arid southwestern region. As tamarisk thrives, it encroaches into the low-flow channel corridor and adjacent floodplain, causing the progressive narrowing of the channel. Tamarisk also significantly increases the roughness of the channel and the floodplain, increasing the frequency of overbank flooding.

### The January 2005 Flood

The 100-year flow for the Virgin River near Mesquite is estimated at 34,400 cubic feet per second (cfs). The U.S. Geological Survey (USGS) recorded a peak discharge of 36,500 cfs about 9 miles upstream of Mesquite during the January 2005 flood. Even though the January 2005 flows were close to the 100-year flow, the flooding limits were significantly wider.

During several years of drought before the flood, tamarisk had encroached on the active channel of the Virgin River. The pre-flood channel was very narrow (about 40 feet wide) and it meandered through areas of dense vegetation. The capacity of this narrow channel was simply inadequate to convey the discharge, resulting in water surface elevations that were higher than the regulatory base flood elevations (see the pre-and post-flood aerial photos of the Virgin River, next page).

The January 2005 flood resulted in significant erosion and loss of vegetation through the floodplain. However, the loss happened after the peak flood discharge. This means that when the peak flood discharge passed through the City of Mesquite, the majority of the dense vegetation was still intact, which resulted in higher water surface elevations and wider flooding limits.

### Floodplain Analysis and Results

The Clark County Regional Flood Control District initiated a study to remap the regulatory floodplain. PBS&J, the District's engineering consultant, developed new hydraulic models to re-delineate the 100-year floodplain. The hydraulic analysis was performed using the Corps of Engineers' HEC-RAS, Version 3.1.3, in conjunction with GeoRAS, Version 4.0. The cross-sectional data developed for the hydraulic analysis was based on post-flood light detection and ranging (LiDAR) data obtained from the U.S. Bureau of Reclamation.

The Virgin River floodplain was analyzed using two different approaches, the primary difference being the selection of the Manning's roughness coefficient (an estimation of the resistance to flow in a given channel) pre-flood versus post-flood. The n-values for the post-flood vegetation cover were lower than n-values associated with the pre-flood vegetation cover because so much of the vegetation had been eroded.

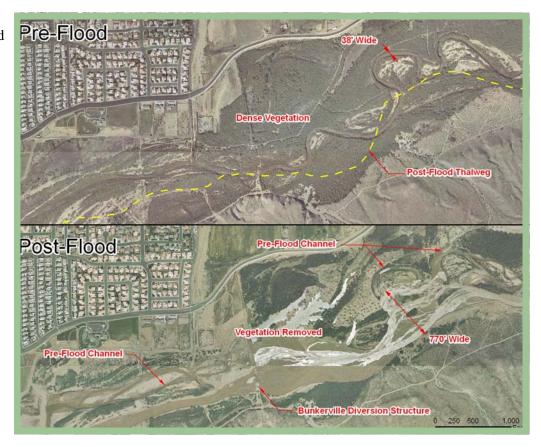
The floodplain delineated using the pre-flood conditions (dense vegetation) closely matches the actual January 2005 flooding limits. The floodplain delineated using the post-flood parameters (sparse vegetation) was compared with the floodplain delineated using the pre-flood analysis. The difference in

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### **Tamarisk Invasion (cont.)**

floodplain width between the post-flood and the pre-flood approaches is up to 510 feet. The water surface elevations differ by as much as 4 feet.

The City of Mesquite does not currently have a tamarisk maintenance or mitigation plan in effect. Therefore, it is likely that the dense vegetation in the floodplain will grow back. With it, the worst-case flooding scenario will return: a narrow channel and vegetation-choked floodplain. Therefore, the team concluded that the floodplain delineation based on assumptions of sparse vegetation would significantly



underestimate the actual flooding limits. Conversely, the floodplain delineation based on assumptions of dense vegetation is the more accurate depiction.

#### What Next?

The study results were submitted to Federal Emergency Management Agency as a physical map revision (PMR) request to revise the Flood Insurance Rate Maps for the study reach. The hydraulic analysis results

were also used for geomorphologic and sedimentation analysis to determine additional locally administered flood and erosion hazard areas and to recommend concept-level mitigation. These recommendations will be incorporated into the District's 2007 Flood Control Five-year Master Plan Update for the City of Mesquite to protect life and property from flooding.

Nevada Revised Statute 543.596 requires that flood control master plans must be reviewed and updated at least every 5 years. The 2007 City of Mesquite Flood Control Master Plan Update is one of those updates. The updates add any new relevant information, assess progress towards fulfillment of the master plan during the 5-year period, identify obstacles to completing the master plan, and recommend changes to the master plan resulting from growth and development.

#### More on Alien Invaders

As part of National Wetlands Month, the Izaak Walton League of America is promoting awareness of the detrimental impact that invasive species can have on the nation's waterways, wetlands, riparian areas, and other resources. Along with providing information on invasive species, IWLA offers assistance in planning wetlands month activities and getting them publicized. The League's website have fact sheets and links to further information about non-native but prolific riparian and wetland species.

>> See http://www.iwla.org/pow.

# Washington Report

### A MOMENT OF CALM — LIKE THE EYE OF A STORM

After several frenetic weeks of legislative activity, Congress is in recess. The headline on a Capitol Hill newspaper, *Roll Call*, this week says, "Post-Recess Agenda Packed." Capitol Hill staff report that instead of being a respite, this recess is more a time for sorting out what has just happened legislatively and preparing for bills going to the floor, committee markups, and House-Senate Conference committees that all will take place just after the recess. The House is out for two weeks, returning April 16th, while the Senate is out only one week, returning April 10th.

### **Immediately After the Recess**

WRDA—Water Resources Development Act bills are expected to come to the floor in the House and Senate. Differing versions have been reported out of House and Senate Committees, with both Chairs expressing commitment to getting a final 2007 WRDA enacted quickly. At the end of the last Congress, House-Senate Conference negotiations broke down after most issues reportedly had been resolved. Now the interest seems to be in getting essentially the same legislation passed so the Committees can move on to a WRDA 2008 or a separate levee safety bill.

At present, the House bill (H.R. 1425) does not contain a levee safety component. The Senate bill does. (Find the bill by going to http://thomas.loc.gov, then Senate, then committees, then Environment and Public Works. There is a flag on the web page for the reported WRDA text.) The ASFPM has expressed the view that a levee safety program should not imitate the dam safety program, as the Senate version does, but rather should be structured to have more state involvement and more "teeth." Since the ASFPM views the treatment of levee safety to be a critical issue, monitoring WRDA progress will be important.

FY 2007 Iraq and Afghanistan Supplemental Appropriations—The House and Senate have passed separate versions of a 2007 Supplemental Appropriations bill in the past couple of weeks (H.R. 1591 and S. 965). The bills deal with issues other than war funding. Notably, both bills incorporate language from a House bill (H.R. 1144) that waives the non-federal cost-share for most programs under the Stafford Act. This is particularly significant for the Public Assistance portions. Unfortunately, Section 404, the Hazard Mitigation Grant Program (HMGP), is not included. At the present, it is unclear whether or not this exclusion might have been inadvertent. There was an effort to shift HMGP funds to the Community Development Block Grant Program to free the funds from constraints and to avoid the problem of meeting the cost-share requirements. That effort was targeted to the "Road Home" initiative for the New Orleans area, but was scuttled due to complications in shifting the funds.

As soon as both Houses of Congress return from the recess, House-Senate negotiations to resolve differences are expected to begin. The overview is that the President has made clear his intent to veto any Supplemental that includes timetables for the war in Iraq. So these issues affecting Gulf Coast recovery and disaster mitigation will need to be monitored.

#### **Recent Activity**

Flood Insurance Reform—The latest version of flood insurance reform legislation has been introduced in the House. H.R. 1682 was introduced by Financial Services Committee Chairman Barney Frank (D-MA) and Housing Subcommittee Ranking Member Judy Biggert (R-IL). The measure largely tracks the bill that passed the House in the last Congress, H.R. 4973. Like that bill, it further raises the borrowing authority rather than forgiving the debt of the National Flood Insurance Program (NFIP). It calls for a study of expanding mandatory purchase of flood insurance to areas behind levees or "residual risk" areas rather than imposing the mandatory purchase requirement. It provides for new coverage limits and would offer new coverage options at actuarially sound rates. It would move non-primary residences and non-residential policies toward actuarial rates. It extends and adds tasks to the flood mapping effort, such as mapping the 500-year floodplain and mapping the residual risk areas behind levees and below dams.

There is some question as to whether the bill will be acted on in this session of the Congress. The fact that the NFIP appears to have sufficient borrowing authority remaining to cover the outstanding claims and [continued on page 9]

### **Washington Report (cont.)**

the fact that the NFIP will require reauthorization in 2008 both add up to diminished pressure to act on the NFIP this first session of the 110th Congress. There are other items in the bill, notably the additions to and extension of the mapping effort and another provision giving the FEMA discretionary authority to require use of the Advisory Base Flood Elevations in the Gulf Coast for the purposes of the NFIP. The ASFPM is concerned about the potential effects of delaying action on the legislation.

The Senate has not yet reintroduced its version of flood insurance reform legislation.

**Katrina Housing Bill**—The bill is officially titled "Gulf Coast Hurricane Housing Recovery Act of 2007" (H.R. 1227). It was passed by the House on March 21st and is pending consideration by the Senate Banking Committee. Language in the bill expressly permits Community Development Block Grant (CDBG) funds to be used to meet matching requirements for any other federal program in the areas affected by Hurricanes Katrina, Rita, or Wilma.

**Single Waiver of Open Space/HMGP Requirement**—The House and Senate passed H.R. 1129 and the measure has now been signed into law. It specifically removes the HMGP-related deed restrictions on a parcel of land to allow it to be used for construction, operation, and maintenance of a connector road in St. Louis County, Missouri. The new law does state clearly that the county must ensure the project does not cause any future food damage, must designate another nearby parcel of land as deed-restricted open space in compensation, and that the federal government is not liable for any future flood damage caused by the project. As of March 28, 2007, this is now Public Law 110-16.

**Multi-Peril Insurance**—Gene Taylor (D-MS) has introduced a bill in the House that would add wind coverage to the NFIP. The bill is H.R. 920 and apparently Taylor has received assurances from some in leadership positions that his bill will receive serious attention. Certainly the legislative proposal is a result of the problems experienced in the Gulf Coast recovery areas in differentiating damage from water and from wind and the related implications for which insurance policy pays for what.

The proposal leads to many questions about how such a plan would work, how risk assessment would be accomplished, how the coverage could be integrated, what the pros and cons would be for private insurance, and the extent to which U.S. Treasury backing would eliminate the need for wind pools.

Catastrophic Risk and Insurance Act—Bills have been introduced in the House and Senate (H.R. 537 and S. 292) to establish a bipartisan commission on insurance reform to assess property and casualty insurance and reinsurance markets after the hurricane seasons of 2004 and 2005. The commission would also look at future exposure to major disasters and recommend legislative and regulatory changes to improve the health of these insurance markets.

**Catastrophe Insurance**—Various Congressional committees are interested in evaluating the possibility of catastrophe insurance. H.R. 91 and H.R. 330 (both introduced by Ginny Brown-Waite R-FL) would provide for federal reinsurance for catastrophic losses. H.R. 164 (introduced by Bobby Jindal, R-LA) would amend the Internal Revenue Code to create disaster protection funds by property and casualty insurance companies for payment of claims from catastrophic events.

Climate Change—Numerous Congressional committees have been holding hearings on various aspects of climate change: the science of climate change, economic impacts of climate change, environmental impacts, increases in disasters and severity of impacts, effects on the ocean and on sea level rise. The House established a new Select Committee on Energy Independence and Global Warming.

### **After the Recess**

A sampling of upcoming activities includes:

- The Appropriations Subcommittees will wrap up their hearing schedules examining the President's FY 2008 budget requests and will soon begin to mark up their bills.
- The Senate Banking Committee will hold a hearing on recommendations concerning catastrophe insurance on April 10th.
- The Senate Natural Resources Committee will hold a hearing on April 12th on S. 987, legislation dealing with the dramatic expansion of biofuels.
- The Senate WRDA bill will be officially introduced, given a bill number, and will probably be

### **Washington Report (cont.)**

considered on the Senate floor very soon. The House WRDA bill is likely to be considered on the House floor soon after the recess as well.

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

[Editor's Note: The ASFPM's Senate testimony on the FEMA budget request is posted on the website at http://www.floods.org/PDF/ASFPM\_Testimony\_FEMA\_Approps\_2008\_Senate.pdf.

A compilation of the ASFPM's recommendations for NFIP reform is posted on the website at <a href="http://www.floods.org/PDF/ASFPM\_NFIP\_Reform\_07\_Recommendations\_022007.pdf">http://www.floods.org/PDF/ASFPM\_NFIP\_Reform\_07\_Recommendations\_022007.pdf</a>.

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

### STATE LAWS ON HAZARDS PLANNING

The American Planning Association has recently completed its fourth annual update of a study for the Institute for Business and Home Safety (IBHS) that examines state land use planning laws, both generally and with regard to their specific provisions for addressing natural hazards. Some cities, towns, counties, and districts consider the effects of floodwaters, ground shaking, and other hazards when administering development regulations. Others do not. To find out which communities are incorporating natural hazards into their local plans, IBHS conducted some research.

First, in 1998 IBHS developed a *Summary of State Land Use Planning Laws*. This document provides an overview of the nation's complex system of regulation for land use and development as it pertains to consideration of natural hazards. IBHS discovered that only a few states provide overall support for planning laws that take the effects of natural hazards into account.

Next, with help from the American Planning Association and the American Institute of Certified Planners, the IBHS Land Use Planning Committee developed the Community Land Use Evaluation for Natural Hazards Questionnaire. The questionnaire includes suggested policy and plan elements that can help communities do a better job of protecting lives and property from future damage. IBHS used it to survey nearly 1,500 municipal-level planners in the spring of 2001.

In 2002, IBHS engaged APA to update the 1998 summary of planning laws. APA Senior Research Associate James Schwab presented his findings at the annual conference of the Association of State Floodplain Managers in Phoenix, Arizona, in 2002. The study has been updated annually since then to reflect more recent changes enacted by state legislatures. It now includes all legislation enacted through 2006.

The study contains two elaborate matrices that detail all the findings, with statutory citations. The first covers general planning; the other delves into the specific issues affecting planning for natural hazards. Color-coded maps delineate how the 50 states dealt with certain core issues, such as consistency and required plan elements. This makes it easy to find out, for example, which states

- Require local governments to address natural hazards in their comprehensive plans, and precisely what is expected;
- Provide specific kinds of technical assistance to local governments in drafting natural hazards elements of comprehensive plans;
- Require vertical or horizontal consistency, or both, in local plans; and
- Mandate a state plan, and which of those include a land use element or a hazards mitigation element.

>>> The Summary of State Land Use Planning Laws can be found at http://www.ibhs.org/research\_library/view.asp?id=302.

# FEDERAL PROTECTION OF COASTAL BARRIERS INCOMPLETE

The U.S. Government Accountability Office has found that coastal development is continuing even on those coastal barriers where federal support is prohibited under the Coastal Barrier Resources Act of 1982. The GAO's recent publication updates its 1992 report, and reviews the extent to which (1) development has occurred in the protected barriers, and (2) federal agencies have provided financial assistance and issued permits to entities within those areas.

The GAO found that an estimated 84% of Coastal Barrier Resources System (CBRS) units remain undeveloped, while 16% have experienced some level of development. Of the developed units, about 13% experienced minimal development—typically less than 20 additional structures per unit since becoming part of the CBRS; and about 3% experienced significant development—100 or more structures per unit—since becoming part of the CBRS.

In units that GAO reviewed where development had occurred, federal and local officials identified a number of factors that have contributed to development despite the unit's inclusion in the CBRS. These include (1) a combination of commercial interest and public desire to build in the unit, (2) local government support for development, and (3) the availability of affordable private flood insurance.

Where development has not occurred, federal and local officials stated their belief that CBRA played a small role because other factors have been more important in inhibiting development. These include (1) the lack of suitably developable land in the unit; (2) the lack of accessibility to the unit; (3) state laws discouraging development within coastal areas; and (4) ownership of land within the unit by groups, such as the National Audubon Society, who are seeking to preserve its natural state.

The GAO also discovered that multiple federal agencies have provided (1) some financial assistance to property owners in CBRS units that is expressly prohibited by the Act; (2) some assistance that is allowed under the Act; and (3) hundreds of permits for federally regulated development

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### **Background on CBRA**

As development and population increase along the coasts of the United States, the risk to human life, property, and valuable habitat also increases, and the natural buffers that minimize storm damage are degraded. Recognizing that development in coastal barrier areas can be influenced by the actions and programs of the federal government, Congress enacted the Coastal Barrier Resources Act in 1982 with the stated purpose of minimizing (1) the loss of human life; (2) wasteful expenditures of federal revenue; and (3) damage to fish, wildlife, and other natural resources associated with coastal barriers along the Atlantic and Gulf Coasts and the shores of the Great Lakes. The Act does this by restricting future federal expenditures and financial assistance in designated barriers in order to discourage development of them. Through CBRA, Congress designated for this protection 585 units of undeveloped coastal land and associated aquatic habitats comprising nearly 1.3 million acres (known as the Coastal Barrier Resources System), and another 2 million acres that are protected by other means because they are parks, wildlife refuges, or private preserves (known as "otherwise protected areas").

CBRA does not prohibit development in CBRS units by owners willing to develop their properties without federal financial assistance. Instead, with certain exceptions (mostly for emergency measures, national security, or energy development), CBRA prohibits federal expenditures or federal financial assistance within CBRS units that might encourage development, including but not limited to the issuance of flood insurance policies, home loans, loan guarantees, and new or expanded infrastructure construction.

Under CBRA, no single federal agency is assigned overall responsibility for administering activities in the CBRS; instead, all federal agencies must abide by the provisions of the Act and must certify annually that they are in compliance. The U.S. Fish & Wildlife Service, within the Department of the Interior, is assigned responsibility for maintaining and updating maps for each CBRS unit. The maps now are outdated but an initiative is underway to modernize them.

### **Coastal Barriers (cont.)**

activities within the unit. Specifically, four agencies—the Department of Housing and Urban Development, the Department of Veterans Affairs, the Federal Emergency Management Agency, and the Small Business Administration—provided financial assistance, such as flood insurance and loan guarantees, totaling about \$21 million that is prohibited by the Act to property owners in CBRS units. Although most of these agencies had processes in place to prevent such assistance from being provided, they cited problems with inaccurate maps as being a key factor leading to these errors. With regard to financial assistance allowed by the Act, GAO found that three federal agencies have provided such assistance but did not track how much assistance they provided, so the total extent of this assistance is unknown.

With regard to permits issued in CBRS units for federally regulated activities, GAO identified hundreds of permits issued by the Army Corps of Engineers and state agencies authorized to issue permits on behalf of the Environmental Protection Agency. These permits covered various activities such as the construction of piers, the discharge of dredged or fill material into federally regulated waters, and permits associated with water discharges from construction sites or wastewater treatment systems.

The GAO recommends, among other things, that the four agencies that provided prohibited loan guarantees or insurance policies to CBRS units first verify and then cancel those that are in violation of CBRA. Three agencies agreed with the recommendation; the Department of Veterans Affairs did not, stating that it would inflict unfair harm on the affected veterans.

>> Coastal Barrier Resources System: Status of Development that has Occurred and Financial Assistance provided by Federal Agencies. GAO-07-356. 2007. 72 pp. Available at http://www.floods.org/files/GAO Report CBRS 0307.pdf.

# UNITED STATES AND CHINA COOPERATE TO PROTECT WATER RESOURCES

The U.S. and China signed an agreement in March to expand a cooperative program that provides U.S. technical assistance to help improve and protect water quality and access to safe and sustainable water resources in China. Increasing water conservation and efficiency in China will also help reduce energy consumption and air pollution locally and globally.

China faces mounting water resource challenges. Under this agreement, the U.S. Environmental Protection Agency will collaborate with China to explore better management solutions through technical assistance to improve the health and accessibility of China's water resources. The agreement provides a framework for cooperation between the countries in the following areas:

- Integrated river basin watershed management;
- Human-made wetlands;
- Water resources monitoring; and
- Wastewater reuse.

The new memorandum of understanding, signed by EPA and by China's Ministry of Water Resources, complements a 2003 memorandum between the two countries that outlines scientific and technical cooperation on environmental issues.

>>> For more information, see http://www.epa.gov/water/new.html.

# State & Local Report

### LOUISIANA WORKS TO IMPLEMENT NEW BUILDING CODE

A program developed by the Louisiana Recovery Authority and funded by \$14 million in federal Hazard Mitigation Grant Program funds will help local governments implement Louisiana's tougher new building code. Local building code enforcement officials will be offered training so they can accurately implement the provisions of the revised code. Resources will be provided to jurisdictions to assist in establishing code offices, according to an article in the Baton Rouge *Morning Advocate*.

State lawmakers passed the new code several weeks after Hurricanes Katrina and Rita. It requires new construction to adhere to strict standards, such as thicker windows, braces for the building and roof straps—all aimed at helping the structure survive high winds. Buildings constructed in the south part of the state must be built to withstand hurricane force winds of 110 mph. "Besides protecting homes, schools, and businesses from future storms," Governor Kathleen Blanco said, "the new code is expected to help bring new insurance companies to the state and thus increase competition that will lower prices for policies."

### ALEXANDER COUNTY, ILLINOIS, REINSTATED IN NFIP

Alexander County, Illinois, sits at the confluence of the nation's two largest rivers—the Mississippi and the Ohio, where flood depths can (and have) reach over 30 feet. Floods are an accepted way of life but even for the best floodplain manager, the enforcement of floodplain regulations in Alexander County is no simple task.

Alexander County joined the National Flood Insurance Program (NFIP) in 1974. During the 1980s, the county allowed numerous floodplain development violations to occur, jeopardizing its status in the NFIP. On July 15, 1988, rather than face enforcement action for failing to enforce its ordinance, the County allowed itself to be suspended for failure to adopt a compliant floodplain management ordinance referencing an updated Flood Insurance Rate Map.

Over the past several years Alexander County, the State NFIP Coordinator, and the Federal Emergency Management Agency (FEMA) Region V Office, have worked together to correct dozens of violations to the maximum extent possible. By utilizing technical assistance and detailed guidance, coordinating with state and federal offices, and reaching out to the general public, the County has made great strides and shown good faith in implementing a sound floodplain management program. One important first step was hiring a full-time floodplain administrator. To date, several floodprone structures have been demolished, manufactured homes have been elevated or moved, and regulatory floodways have been cleared of debris and refuse. The County has a remedial plan to continue corrective efforts until all violations have been mitigated. This has all been done without the help of federal or state funding.

Most impressive is the fact that local officials in Alexander County have changed the mindset of their residents and have successfully implemented floodplain regulations and effective mitigation programs in a county where historically these programs had been very unpopular.

On January 4, 2007, Alexander County was reinstated, with a probationary status, in the NFIP, after the endorsement of the Illinois NFIP State Coordinator and the FEMA Region V Office. The County has received a letter from FEMA Region V reiterating the need for it to continue to mitigate to the maximum extent possible all remaining outstanding violations. While Alexander County is on probation, flood insurance policy holders in the community will be assessed a \$50 surcharge.

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### State & Local Report (cont.)

### NEW HAMPSHIRE YOUTHS RAISE FLOOD AWARENESS

Elementary, middle, and high school students in Alstead, New Hampshire, worked to develop—and spread—awareness of the local flood hazard and the town's disaster resilience when they documented the occurrence, impacts, and recovery from a recent devastating flood. During an early morning in October 2005, a steep and fast-moving flood crest on the Cold River swept through the rural town of Alstead in southwestern New Hampshire. Within a few hours four residents were dead and much of the town was seriously damaged—the worst natural disaster in its 242-year history.

The Alstead Historical Society recognized the need to compile a history of the event, and received a \$9,000 grant from The History Channel to produce a book about it. Three Fall Mountain high school students edited and designed the book, selecting material from scientific sources on flood hazard, media accounts, thousands of photographs (more than 100 made the book), and interviews that were conducted by students and members of the historical society.

The resulting volume, *Too Much Water, Too Much Rain*, documents what happened before, during, and after the flood, and especially the heroic neighborly attitude and actions displayed by residents and other volunteer help in the rebuilding and recovery process. The finished book was released in December 2006 and within two weeks sold out of its 2,000-copy first printing, with requests from across New England and as far away as Hawaii. Subsequent press runs met the unexpected demand, and the book is available from online booksellers.

### LOCAL OFFICIALS HESITATE WHEN ASKED FOR EMERGENCY PLANS

A study by the American Society of Newspaper Editors showed that 44% of local officials provided complete Comprehensive Emergency Response Plans (CERPs) to the volunteers, community members, and reporters who requested them. About one-third of the emergency officials refused to give any information to the volunteers, and 20% provided partial copies of the plans.

The audit sampled 404 of the nation's more than 3,000 Local Emergency Planning Committees (about 13%) during two weeks in January 2007 with volunteers from 162 groups, including local and student newspapers, broadcast stations, Associated Press bureaus, and chapters of the League of Women Voters. The volunteers, representing themselves only as interested citizens, visited their LEPC offices and asked for a copy of the CERP. Some officials, becoming suspicious when asked for the seldom-requested plan, contacted police. In several states, officials sent emails to colleagues in other emergency planning agencies to warn them of the audit.

Under the Emergency Planning and Community Right-to-Know Act of 1986, every state is required to establish the number and jurisdiction of its LEPCs, which are charged with developing and updating the CERP, which sets out actions to be taken in the event of a hazardous materials spill. The law also states that each CERP "shall be made available to the general public ... during normal working hours at the location or locations designated . . ." (*U.S. Code*, Title 42, Chapter 116, Subchapter II, § 11044). Under the law, officials are permitted to keep certain information secret, such as the location of specific chemical stores, but that information is to be collated in a separate report that is not made public.

The officials who refused to provide access to the emergency plans often cited homeland security issues, terrorism concerns, and the USA PATRIOT Act as reasons the reports must remain confidential. According to the report, many officials "weren't sure who had the authority to release the reports or even where the documents were located."

On the other hand, many local officials produced the reports immediately, or a link to the community website where the plan was posted. One official noted, "It's nice to see someone interested in the county disaster plan. . . We need more awareness on what to do during an incident for the safety of everyone."

>>> The full report can be read at http://www.sunshineweek.org/files/audit07.pdf.

## **Professional Opportunities**

Jobs, Scholarships, Expert Panels, and More...

For more job listings, visit the ASFPM website at http://www.floods.org/StatePOCs/jobs.asp.

### HUNTSVILLE, ALABAMA, SEEKS FLOODPLAIN MANAGEMENT ANALYST

The City of Huntsville, Alabama, is seeking a Floodplain Management Analyst, salary range \$38,521–\$58,676 annually. The position will be open until April 26, 2007.

>>> For an application and details, see <a href="http://www.hsvcity.com/employment.php">http://www.hsvcity.com/employment.php</a> or contact the City of Huntsville Human Resources Department at (256) 427-5240. Applications (and additional resume material as desired) must be submitted by 5:00 p.m. on April 26, 2007, to City of Huntsville, Human Resources Department, P.O. Box 308, Huntsville, AL 358-0308.

### TWO ISO/CRS SPECIALISTS NEEDED

Insurance Services Office, Inc. (ISO), the leading provider of information to the property/casualty insurance industry, is seeking applicants for two ISO/CRS Specialist positions: one to cover the Gulf states (Alabama, Kentucky, Louisiana, Mississippi, and Tennessee), and the other to cover the northern part of Florida. The positions involve visiting communities to collect flood information on behalf of the National Flood Insurance Program's Community Rating System and representing ISO at meetings with community officials.

Emergency management experience and knowledge of the NFIP are desirable. Certified Floodplain Manager (CFM) status is a strong plus, as is general engineering experience with strong technical knowledge. College degree desired but not required. Training will be provided. Excellent customer service, math, and verbal/written communication skills are essential. Knowledge of Microsoft Windows is required. Must be self-motivated, detail-oriented, possess a strong work ethic, and have the ability to work independently. Requires a valid driver's license and overnight travel. ISO offers a competitive salary; a solid benefits package with medical, dental, 401(k), ESOP; and a company car.

>>> To apply, send a resume by June 1, 2007, to Mr. Willie McDonald, Insurance Services Office, Inc., 545 Washington Boulevard, Jersey City, NJ 07310-1686, (201) 469-3001, wmcdonald@iso.com with a copy to Mr. William Trakimas, Insurance Services Office, Inc., 2033 Hamilton Ln., Carmel, IN 46032, (317) 848-2898, wtrakimas@iso.com.

### PROGRAM SPECIALIST IN FEMA REGION X

The Federal Emergency Management Agency's Region X office in Bothell, Washington, is seeking one or more Senior Natural Hazards Program Specialists to work in its Community Mitigation Programs Branch, within the Mitigation Division. The person in this position will be responsible for (1) the management and administration of National Flood Insurance Program activities for the states of Washington, Oregon, Idaho, and Alaska; (2) coordination and implementation of various FEMA support and assistance programs; (3) providing guidance to federal agencies in implementation of the Executive Orders related to floodplain protection; (4) assessing and evaluating flood hazard and potential growth and development of selected communities; and other duties as assigned. In disaster situations, the incumbent will provide guidance, assistance, and advice to diverse groups and individuals.

The position is a GS-13 (\$79,390-\$103,211) and includes all federal employment benefits. >> Application may be made by mail, fax, or email, according to the instructions included in the job listing at http://www.fema.gov:80/career/publicForward.do?action=View%20Posted%20Job%20Listing&from=RepeatGroups&jobId=25529. The deadline is April 23, 2007. The vacancy announcement/job opportunity number for the position is RX-RB-07-268-SWH.

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### **Opportunities** (cont.)

# VOLUNTEERS SOUGHT TO DEVELOP GROUNDWATER MONITORING FRAMEWORK

The federal Advisory Committee on Water Information (ACWI) approved formation of a Subcommittee on Ground Water at its January 2007 meeting. The SOGW is being charged with developing a framework for nationwide monitoring of long-term groundwater quantity and quality. The subcommittee's goal will be to have a draft proposal in the next 12-18 months.

"With 36 states expecting either statewide or localized shortages in the next 10 years, it is important that we work toward a nationwide framework for groundwater monitoring and collaboration that will facilitate the assessment of the U.S. ground water reserves," says Robert Hirsch, Associate Director for Water, U.S. Geological Survey, and ACWI Co-Chair.

The SOGW is seeking volunteers for the following work groups:

- Inventory Work Group,
- Field Practices Work Group,
- Data Standards and Data Management Work Group, and
- Ground Water Monitoring Design Work Group.

The ACWI consists of a dozen federal agencies and about 20 groups from state and local government (including the Association of State Floodplain Managers), professional associations, academia, and private industry. It was authorized in 1991 by Office of Management and Budget memorandum M-92-01 to help ensure effective decisionmaking for water resources management and environmental protection at all levels of government and in industry.

>>> For more information see <a href="http://acwi.gov/sogw/index.html">http://acwi.gov/sogw/index.html</a>. To submit your name for consideration to participate in the groundwater work group, email SOGW Executive Secretary Chris Reimer at <a href="mailto:creimer@ngwa.org">creimer@ngwa.org</a>. In the email, include a short paragraph (1) specifying the work group (of the four listed above) for which you wish to be considered, (2) why you are interested, and (3) what applicable background you bring.

### NICK WINTER MEMORIAL SCHOLARSHIP

The Association of State Floodplain Managers and the ASFPM Foundation will grant a \$2,000 scholarship for the 2007-2008 academic year to an undergraduate or graduate student in an academic degree program related to floodplain/stormwater management. Eligible applicants include juniors and seniors in four-year-degree programs, applicants to a graduate program, or current graduate students. They must be enrolled in an accredited university or college in the United States and be U.S. citizens. Eligible disciplines include environmental sciences, civil or environmental engineering, planning, emergency management, or other disciplines with a demonstrable link to floodplain and stormwater management.

The recipient of the scholarship will be named in late July 2007. Scholarship funds will be paid directly to the recipient's college or university. Selection preference will be given to those applicants who demonstrate a history of civic or volunteer service as well as a financial need (i.e., full-time students responsible for their own tuition), in addition to meeting the basic qualifications.

>>> Applicants must send four copies of the completed 2007-2008 Scholarship Application Form, available at http://www.floods.org/Foundation/ScholarOps.asp, plus a separate letter of reference, to the Nick Winter Memorial Scholarship Review Committee, c/o Green International Affiliates, Inc., 407 Rear Mystic Avenue, Unit 25, Medford, MA 02155, Attn: Peter A. Richardson, CFM.. The application materials must be received before May 31, 2007.

# Publications, Software, AV & the Web

- Watermark, the newsletter of the National Flood Insurance Program, is now being issued in an online version in addition to the familiar and informative printed periodical. The Spring 2007 issue has been posted, and includes articles on NFIP rule changes, the photographs now required with elevation certificates, the first CRS Class 1 community, low flood insurance coverage in the Northeast, and others. Check out the new e-Watermark website at http://watermark.nfipstat.com.
- The Clean Water State Revolving Fund 2006 Annual Report points to the greater emphasis placed on community outreach programs through the \$900 million invested by the Environmental Protection Agency in low-interest loans in 2006 to help states and municipalities update their wastewater infrastructure. Combined with state contributions, total financial assistance for wastewater projects topped \$5 billion for the first time in 2006. The outreach programs supported through these funds stimulate participation and encourage communities to take new approaches to restore and protect aquatic life, provide and refurbish recreational uses, and protect drinking water sources. Although participation is voluntary, all 50 states and Puerto Rico are now tracking the link between project assistance and environmental benefits. See the report at http://www.epa.gov/owm/cwfinance/cwsrf/annreport2006.htm.
- "Getting in Step: A Guide to Conducting Watershed Outreach Campaigns" in an online training module that offers a tested step-by-step system to help local governments, watershed organizations, and others maximize the effectiveness of public outreach campaigns to help solve nonpoint source pollution problems and protect local waterways. Part of the Environmental Protection Agency's Watershed Academy, this is a free, updated version of the guide originally issued in 2003. Access it at <a href="http://www.epa.gov/watertrain/gettinginstep/">http://www.epa.gov/watertrain/gettinginstep/</a>. Other watershed training modules are available at <a href="http://www.epa.gov/watertrain/">http://www.epa.gov/watertrain/</a>.
- Journal of the American Water Resources Association Special Issue on Connectivity of Headwater Streams to Downstream Waters is devoted to a review of the scientific understanding of the hydrological connectivity of headwater streams and their contributions to the integrity of downstream waters. This is a timely topic, given the political, scientific, and legal complexities of Clean Water Act jurisdiction and recent U.S. Supreme Court decisions on that issue. The Court's decisions in SWANCC, Rapanos, and other cases have contributed to the regulatory turmoil and made it clear that questions about the extent of the tributary system and its connectivity to navigable waters are critical questions for the continued and future management of wetlands and their functions [see News & Views, August 2006, p. 4]. This featured collection resulted from a 2005 symposium held by the American Water Resources Association in Seattle, Washington. The papers are authored by some of the foremost experts in the country. The special issue is available at http://www.blackwell-synergy.com/toc/jawr/43/1.
- Prioritizing America's Water Resources Investments: Budget Reform for Civil Works Construction Projects at the U.S. Army Corps of Engineers reports on a study conducted by the National Academy of Public Administration at the request of Congress. The aim was to examine the way in which the Corps, which has held heavy responsibility for much of the nation's water resources development for the last century or more, decides which projects to undertake. In its conclusions, the investigating panel lists 12 deficiencies in the Corps' process, many of them familiar to floodplain managers, including a too-narrow focus on individual projects; limiting the range of potential projects to those proposed by local sponsors; project priority-setting that relies too heavily on single factors, when a combination of benefit/cost analysis, life safety, and environmental values likely would be more realistic; authorization of many more projects than are funded; and a decisionmaking process that is not completely transparent. NAPA's panel recommends a return to broad river basin planning and watershed studies and gradually moving to a budgeting process that sets priorities based on systemic needs and that considers multiple factors.

  National Academy of Public Administration. 2007. 29 pp. Available at http://www.napawash.org/pc\_management\_studies/Corps\_Summary\_Report\_03-02-07.pdf.

# Calendar

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

- **April 11–13, 2007:** Spring Conference of the New Mexico Floodplain Managers Association, Socorro, New Mexico. Contact Les Bond at (505) 682-1359 or see <a href="http://www.nmfma.org/">http://www.nmfma.org/</a>.
- **April 14–18, 2007:** Annual Conference of the American Planning Association, Philadelphia, Pennsylvania. See <a href="http://www.planning.org/2007conference/">http://www.planning.org/2007conference/</a>.
- **April 19–20, 2007:** EARTH SUMMIT FOR GLOBAL WARMING MITIGATION: 18TH GLOBAL WARMING INTERNATIONAL CONFERENCE AND EXPO, Miami, Florida. Sponsored by the Global Warming International Center. Call (630) 910-1551 or see <a href="http://gw18.globalwarming.net/">http://gw18.globalwarming.net/</a>.
- April 24, 2007: FIRST ANNUAL RHODE ISLAND MITIGATION CONFERENCE, Warwick, Rhode Island. Contact Pam Pogue at Pam.Pogue@us.army.mil.
- April 26–27, 2007: 24TH ANNUAL CONFERENCE OF THE LOUISIANA FLOODPLAIN MANAGEMENT ASSOCIATION, Alexandria, Louisiana. See http://www.lfma.org/.
- April 26–27, 2007: ARKANSAS
  FLOODPLAIN MANAGEMENT
  ASSOCIATION SPRING
  WORKSHOP, Jacksonville,
  Arkansas. Contact Danny
  Straessle at danny.straessle@cb.com or see
  http://www.arkansasflood.com
  /CONFERENCES.htm.
- April 29—May 3, 2007: NATIONAL FLOOD CONFERENCE, Denver, Colorado. Sponsored by the National Flood Insurance Program. See http://www.fema.gov/business/nfip/natl\_fldconf.shtm.

# Roundup in the High Country: Gather at the Source

11th Triennial Arid Regions Conference sponsored by the Association of State Floodplain Managers

combined with the

Annual Conference of the Colorado Association of Stormwater & Floodplain Managers

September 11–14, 2007 Breckenridge, Colorado

Abstracts due April 30, 2007

- Paper sessions
- Technical field tours
- CEC credits
- CFM exam

See http://www.casfm.org/annual\_conference/2007/annual\_conf.htm

- **May 1–3, 2007:** CONFERENCE OF THE ASSOCIATION OF FLOODPLAIN MANAGERS OF MISSISSIPPI, Bay St. Louis, Mississippi. Contact Stuart Williamson at **williamsons@cdm.com**.
- May 2–4, 2007: CONFERENCE OF THE NORTH CAROLINA ASSOCIATION OF FLOODPLAIN MANAGERS, Kill Devil Hills, North Carolina. See http://www.ncafpm.org/.
- May 8–10, 2007: ANNUAL CONFERENCE OF THE KENTUCKY ASSOCIATION OF MITIGATION MANAGERS, Gilbertsville, Kentucky. Contact Carey Johnson at (502) 564-3410 or see <a href="http://www.kymitigation.org/index.html">http://www.kymitigation.org/index.html</a>.
- May 9–11, 2007: ANNUAL MISSOURI FLOODPLAIN AND STORMWATER MANAGERS' CONFERENCE, Lake Ozark, Missouri. See http://www.mfsma.com/index.php.
- May 14–17, 2007: NATIONAL FLOOD INSURANCE PROGRAM COMMUNITY RATING SYSTEM (E278), Emergency Management Institute, Emmitsburg, Maryland. Contact (800) 238-3358 or see <a href="http://www.training.fema.gov/EMIweb/">http://www.training.fema.gov/EMIweb/</a>.
- May 15–19, 2007: 2007 WORLD ENVIRONMENTAL AND WATER RESOURCES CONGRESS: FOCUS ON HABITAT RESTORATION, Tampa, Florida. Sponsored by the American Society of Civil Engineers. See <a href="http://content.asce.org/conferences/ewri2007/index.html">http://content.asce.org/conferences/ewri2007/index.html</a>.
- May 20–22, 2007: WEST REGIONAL CONFERENCE OF THE ASSOCIATION OF STATE DAM SAFETY OFFICIALS, Omaha, Nebraska. Contact Mark Noble, Nebraska Dam Safety Program at (402) 471-0581, mnoble@dnr.ne.gov or see http://www.damsafety.org.
- May 20–23, 2007: SECOND NATIONAL FORUM ON SOCIOECONOMIC RESEARCH IN COASTAL SYSTEMS, New Orleans, Louisiana. Sponsored by the Center for Natural Resources Economics and Policy, Louisiana State University. See http://www.cnrep.lsu.edu/.
- May 20–24, 2007: SPRING CONFERENCE OF THE TEXAS FLOODPLAIN MANAGEMENT ASSOCIATION, College Station, Texas. Contact John Espinoza at jespinoza@halff.com or see http://www.tfma.org/displayconvention.cfm.
- May 23–25, 2007: RIVER BASIN MANAGEMENT 2007, Kos, Greece. Sponsored by Wessex Institute of Technology. Contact Zoey Bluff, Wessex Institute of Technology; +44 (0)238 029 3223 (United Kingdom) or see http://www.wessex.ac.uk/conferences/2007/rm07/.
- **June 3–6, 2007:** STRENGTHENING THE ROLES OF LAND TRUSTS AND LOCAL GOVERNMENTS IN PROTECTING AND RESTORING WETLANDS AND RIPARIAN AREAS: WESTERN STATE WORKSHOP, Park City, Utah. Sponsored by the Association of State Wetland Managers. See <a href="http://www.aswm.org/">http://www.aswm.org/</a>.
- **June 3–8, 2007:** 31ST ANNUAL CONFERENCE OF THE ASSOCIATION OF STATE FLOODPLAIN MANAGERS, Norfolk Virginia. See <a href="http://www.floods.org">http://www.floods.org</a>.
- **June 11–14, 2006:** BASIC HAZUS-MULTIHAZARD (E313), Emergency Management Institute, Emmitsburg, Maryland. Contact EMI at (800) 238-3358 or see <a href="http://www.training.fema.gov/EMIweb/">http://www.training.fema.gov/EMIweb/</a>.
- June 11–14, 2007: 7TH CONFERENCE AND EXPOSITION OF THE NATIONAL HYDROLOGIC WARNING COUNCIL, Savannah, Georgia. Sponsored by the ALERT Users Group, Southwestern Association of ALERT Systems, ALERT-Flows East Coast Users Group, and the U.S. Geological Survey. See <a href="http://nhwc.udfcd.org/">http://nhwc.udfcd.org/</a>.

- **June 13–15, 2007:** STORMCON WORKSHOPS AND EXHIBITION, Los Angeles, California. Sponsored by *Stormwater* magazine and Forester Communications. Call Steve Di Giorgi at (805) 682-1300 x129 or stevedg@forester.net or see http://www.stormcon.com/losangeles.
- **June 25–28, 2007:** ADVANCED HAZUS-MH FOR FLOOD (E172), Emergency Management Institute, Emmitsburg, Maryland. Call (800) 238-3358 or see http://www.training.fema.gov/EMIweb/.
- **June 25–29, 2007:** 32ND INTERNATIONAL SYMPOSIUM ON REMOTE SENSING OF THE ENVIRONMENT, San Jose, Costa Rica. Sponsored by the International Center for Remote Sensing of Environment and others. See <a href="http://www.cenat.ac.cr/simposio/callforpapers.htm">http://www.cenat.ac.cr/simposio/callforpapers.htm</a>.
- **July 9–13, 2007:** RESIDENTIAL COASTAL CONSTRUCTION (E386), Emergency Management Institute, Emmitsburg, Maryland. Contact EMI at (800) 238-3358 or see <a href="http://www.training.fema.gov/EMIweb/">http://www.training.fema.gov/EMIweb/</a>.
- July 21–27, 2007: CONSERVATION CHALLENGES IN A CHANGING LANDSCAPE, Fort Myers, Florida. Sponsored by the Soil and Water Conservation Society. See <a href="http://www.swcs.org/index.cfm?nodeID=10373&audienceID=1">http://www.swcs.org/index.cfm?nodeID=10373&audienceID=1</a>.
- **July 22–26, 2007:** Brewing Solutions to your Coastal Problems: Biennial Coastal Zone Management Conference, Portland, Oregon. Sponsored by the National Oceanic and Atmospheric Administration Coastal Services Center. See <a href="http://www.csc.noaa.gov/cz">http://www.csc.noaa.gov/cz</a>.
- **July 24–26, 2007:** HAZARDS IN WATER RESOURCES, Boise, Idaho. Sponsored by the Universities Council on Water Resources and the National Institutes for Water Resources. See <a href="http://www.ucowr.siu.edu">http://www.ucowr.siu.edu</a>.
- **August 13–16, 2007:** ADVANCED HAZUS-MH FOR FLOOD (E172), Emergency Management Institute, Emmitsburg, Maryland. Call EMI at (800) 238-3358 or see <a href="http://www.training.fema.gov/EMIweb/">http://www.training.fema.gov/EMIweb/</a>.
- **August 22–23, 2007:** OHIO STATEWIDE FLOODPLAIN MANAGEMENT CONFERENCE, Dublin, Ohio. See http://www.ofma.org/ofma/.
- August 20-23, 2007: STORMCON '07: THE NORTH AMERICAN SURFACE WATER QUALITY CONFERENCE AND EXPOSITION, Phoenix, Arizona. See http://www.stormcon.com/sc.html.
- **August 27–29, 2007:** WETLANDS 2007: WATERSHED STRATEGIES TO PROTECT AND RESTORE WETLAND ECOLOGICAL AND SOCIAL SERVICES, Williamsburg, Virginia. Sponsored by the Association of State Wetland Managers. Contact Laura Birchill at (207) 892-3399, laura@aswm.org or see http://www.aswm.org/.
- **August 27–30, 2007:** Managing Floodplain Development through the National Flood Insurance Program (E273), Emergency Management Institute, Emmitsburg, Maryland. Contact EMI at (800) 238-3358 or see <a href="http://www.training.fema.gov/EMIweb/">http://www.training.fema.gov/EMIweb/</a>.
- **September 4–7, 2007:** ANNUAL CONFERENCE OF THE FLOODPLAIN MANAGEMENT ASSOCIATION, South Lake Tahoe, Nevada. Contact Iovanka Todt at (619) 204-4380 or see <a href="http://www.floodplain.org/">http://www.floodplain.org/</a>.
- **September 10–13, 2007:** TRAIN-THE-TRAINER: MANAGING FLOODPLAIN DEVELOPMENT THROUGH THE NFIP (E270), Emergency Management Institute, Emmitsburg, Maryland. Contact EMI at (800) 238-3358 or see http://www.training.fema.gov/EMIweb/.

- **September 11-14, 2007:** ARID REGIONS CONFERENCE, Breckenridge, Colorado. Sponsored by the Colorado Association of Stormwater and Floodplain Managers and the Association of State Floodplain Managers. Contact Kevin Houck at (303) 866-4805 or see <a href="http://www.casfm.org/">http://www.floods.org/</a>.
- **September 16-19, 2007:** ANNUAL CONFERENCE OF THE OKLAHOMA FLOODPLAIN MANAGERS ASSOCIATION, Tulsa, Oklahoma. See http://www.okflood.org/.
- **September 24–27, 2007:** 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 24–26, 2007:** FALL CONFERENCE OF THE ARKANSAS FLOODPLAIN MANAGEMENT ASSOCIATION, Eureka Springs, Arkansas. Contact Conrad Battreal at cjb@ftn-assoc.com or see http://www.arkansasflood.com/.
- October 9–12, 2007: 34TH ANNUAL NATURAL AREAS CONFERENCE, Cleveland, Ohio. Sponsored by the Natural Areas Association and the Cleveland Museum of Natural History. Contact the Natural Areas Association, P.O. Box 1504, Bend, Oregon 97709, (541) 317-0199 or see <a href="http://www.naturalarea.org/conference.asp">http://www.naturalarea.org/conference.asp</a>.
- October 18–19, 2007: BUILDING SUCCESSFUL PARTNERSHIPS: THIRD ANNUAL CONFERENCE OF THE NEW JERSEY ASSOCIATION FOR FLOODPLAIN MANAGEMENT, Somerset, New Jersey. See <a href="http://www.njafm.org/">http://www.njafm.org/</a>.
- October 21–24, 2007: FALL CONFERENCE OF THE TEXAS FLOODPLAIN MANAGEMENT ASSOCIATION, Lubbock, Texas. See http://www.tfma.org/displayconvention.cfm.
- October 22–24, 2007: FALL CONFERENCE OF THE AMERICAN SHORE & BEACH PRESERVATION ASSOCIATION, Galveston, Texas. See http://www.asbpa.org/conferences/conferences.htm.
- November 6–8, 2007: FOURTH ANNUAL CANADIAN RISK AND HAZARDS NETWORK SYMPOSIUM Richmond, British Columbia. Sponsored by Justice Institute of British Columbia, Simon Fraser University, and University of British Columbia. Contact Stephanie Chang at stephanie.chang@ucb.ca or see http://www.jibc.ca/crhnet/papers/papers.htm.
- **November 8–9, 2007:** STRONGER TOGETHER: ANNUAL CONFERENCE ON PROPERTY LOSS REDUCTION, Orlando, Florida. Sponsored by the Institute for Business and Home Safety. See <a href="http://www.ibhs.org/congress/">http://www.ibhs.org/congress/</a>.
- **November 14–15, 2007:** ANNUAL CONFERENCE OF THE MINNESOTA ASSOCIATION OF FLOODPLAIN MANAGERS, St. Cloud, Minnesota. Information will be posted at <a href="http://www.mnafpm.org/default.htm">http://www.mnafpm.org/default.htm</a>.
- **November 27–30, 2007:** TRAIN-THE-TRAINER: MANAGING FLOODPLAIN DEVELOPMENT THROUGH THE NFIP (E270), Emergency Management Institute, Emmitsburg, Maryland. Contact EMI at (800) 238-3358 or see <a href="http://www.training.fema.gov/EMIweb/">http://www.training.fema.gov/EMIweb/</a>.
- **April 27—May 1, 2008:** Spring Conference of the Texas Floodplain Management Association, League City, Texas. See http://www.tfma.org/displayconvention.cfm.
- May 18–23, 2008: 32ND ANNUAL CONFERENCE OF THE ASSOCIATION OF STATE FLOODPLAIN MANAGERS, Reno, Nevada. See http://www.floods.org.



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