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ASSOCIATION OF STATE FLOODPLAIN MANAGERS, INC.

THE NFIP— 2001 IN REVIEW

Among the significant developments for the National Flood Insurance Program during calendar year 2001 were the merger of the Federal Insurance Administration and the Mitigation Directorate of the Federal Emergency Management Agency to form the new Federal Insurance and Mitigation Administration (FIMA). This brought together once again the insurance, floodplain management, and flood mapping components of the NFIP. Some of the other highlights of the year are listed below.

Coverage—Federally backed flood insurance is now available in more than 19,700 communities. Last year, the number of policies in force increased to more than 4.3 million, representing nearly \$589 billion worth of coverage. Color maps with state-by-state policy, coverage, and claims figures are available on FEMA's website at <http://www.fema.gov/nfip/pcstat.htm>.

Rule Changes—In November, NFIP regulations were revised to include definitions for future-conditions hydrology and for the floodplains that may be shown on Flood Insurance Rate Maps [see story on page 5 of this issue]. In December, the *Federal Register* published a proposed rule that will enable the NFIP to increase rates charged for pre-FIRM, V-zone properties currently eligible for so-called "subsidized" rates. This would bring their premiums more in line with their actual risk, and also help account for increasing flood risks due to steadily eroding coastlines [see *News & Views*, August 2000, p. 5]. Another rule change allowed a 1% increase in the expense allowance paid to private insurers that sell and service flood insurance. FIMA also proposed a rule to launch a three-year pilot project that would permit governmental risk pools to sell flood insurance to public entities to cover their public buildings—the same mechanism local governments typically use for other coverages.

Map Modernization—FEMA's mapping program produced over 2,500 state-of-the-art Digital Flood Insurance Rate Maps for 447 communities and other users. FEMA estimates it would need an additional \$800 million over seven years for full map modernization.

President's Fiscal Year 2003 Budget Request Released

Just as this issue was going to press, the President's Fiscal Year 2003 budget request was made public. For the Federal Emergency Management Agency, it proposes new funding and changes in funding notable for floodplain management. One is a request for an added \$300 million for modernizing flood maps—a substantial and much-needed increase. Under this budget, FEMA also would dedicate \$300 million to a new competitive grant for pre-disaster mitigation, replacing the formula-based Hazard Mitigation Grant Program currently funded through the Disaster Relief Fund. The budget request also includes some proposed reforms to the National Flood Insurance Program geared toward improving its financial performance and transferring more financial liability to individuals building in floodprone areas.

The proposed budget has elements that will affect the operations of most agencies that have to do with floodplain management. Log onto each agency's website for details.

<<<Or, get a summary of, and details about, the whole proposed budget at <http://www.whitehouse.gov>.

Cooperating Technical Partners—Under this initiative, communities, states and/or regional agencies perform all or portions of data collection and mapping tasks according to FEMA standards. The partnership stretches available dollars and expands and accelerates map modernization. In Fiscal Year 2001, FEMA allocated \$8 million of flood study funding for CTP activities. *[continued on page 7]*

REMINDER on Graduate Fellowship

Applicants have until March 1, 2002 to submit their paperwork in pursuit of the \$25,000 Graduate Fellowship in Floodplain Management for academic year 2002–2003, offered by the Association of State Floodplain Managers and the Federal Emergency Management Agency.

The award will be made to a full-time post-baccalaureate student for one academic year to conduct a research project addressing a floodplain management or mitigation issue. Topics may be within such areas as land use and comprehensive planning, engineering, design and construction, materials testing, public policy, geography, or other relevant areas. The recipient completes a research project draft and final report, writes an article for the ASFPM's *News & Views*, and makes a presentation at the ASFPM's conference.

<<< More details are available on the ASFPM's website at <http://www.floods.org> or from the Executive Office.

from the Chair

George Riedel

Education and training are the keys to good floodplain management in this country. Currently, there are 801 Certified Floodplain Managers (CFMs). This represents the number of individuals certified by ASFPM and the six accredited state programs.

Although the number of CFMs is impressive considering the short tenure of the program, we must do more to see that this number continually increases. The current number of CFMs represents approximately only 20% of our total membership.

The CFM Program ensures that state and local officials have the knowledge and understanding of what is and is not appropriate development activity in the floodplain. The CFM Program increases the awareness of floodplain management and enhances the professional status of all floodplain managers.

All State National Flood Insurance Program Coordinators need to be actively involved in the CFM Program within their states. In order for a CFM Program to be established in a chapter or a state, the State NFIP Coordinator must be supportive.

The ASFPM must continue to support and work with all states to ensure the establishment of the CFM Program nationwide. The Certification Board of Regents is in the process of refining guidance that will help chapters and states who do not want to administer the CFM Program to develop their own exams. This guidance will allow chapters or states to have a specific exam administered by the ASFPM. In this way, more chapters and states will be able to promote the CFM Program.

Perhaps the most important action a state can undertake is to proctor the exam within its own jurisdiction. It can be done once a year near the NFIP coordinating agency's office, or better yet, be offered each time a training course is held for local staff and officials, whether that course is in basic floodplain management, floodproofing, flood insurance, or any related topic. The State NFIP Coordinator or any CFM may proctor the exam. Just click onto the ASFPM website at <http://www.floods.org> or contact the ASFPM Executive Office to schedule an exam.

I believe that good floodplain management is a direct result of education and training. Floodplain management is more than just the NFIP. Wise floodplain management encompasses many other factors. That is why having strong training and a solid CFM program in each state is essential to reduce the nation's flood losses. I challenge and encourage all chapters and states to increase participation in the CFM program within their states. 4

Association News

NATIONAL FLOODPROOFING CONFERENCE II

Tampa, Florida, is the site of this conference, which aims to educate practitioners at all levels of government and the private sector about floodproofing programs, applications, techniques, and tools for mitigating flood losses. It will be held March 25–29, 2002, co-sponsored by the Federal Emergency Management Agency Region IV, the Corps of Engineers' National Flood Proofing Committee, the Florida Department of Community Affairs, and the ASFPM. Besides the technical program, it will include exhibits, technical field tours, training workshops, and opportunities to prepare for and take the Certified Floodplain Manager exam.

<<<The brochure and related information can all be found at <http://www.floods.org>.

ANNUAL CONFERENCE ON THE WAY

Planning is well underway for the ASFPM's 26th annual conference, "Breaking the Cycle of Repetitive Flood Loss," to be held at the Hyatt Regency Hotel in Phoenix, Arizona from June 23 to 28, 2002. The 2002 Conference Team consists of Conference Director Dan Sherwood and

Assistant Valerie Swick, Program Chair Al Goodman, Exhibits Coordinator Dan Accurti, and the Arizona Floodplain Management Association. This year's conference will preserve the altered schedule set up last year to accommodate the growing number of participants, and some outdoor events will be held in the mornings to avoid Arizona's summer heat. Training workshops again will be held on Monday (June 24) and the Awards Luncheon on Thursday. Release of the final program and brochure is imminent. Look for them on the ASFPM website at <http://www.floods.org>.

One part of each annual conference is the presentation of awards to deserving local and state programs and people in floodplain management. Nominations can be made for the following awards—March 1 is the deadline.

- The Tom Lee State Award for State Excellence
- The Larry R. Johnston Local Floodplain Manager of the Year
- The Media Award
- The James Lee Witt Award for Local Excellence
- The John R. Sheaffer Award for Excellence in Floodproofing.

The ASFPM website gives more details and lists past award recipients. 4

NO ADVERSE IMPACT QUESTIONS & ANSWERS

Editor's note: We begin here a series of columns designed to explore more of the details and nationwide applicability of the ASFPM's new "no adverse impact" approach to floodplain management. Each issue of the News & Views will carry one or more questions about NAI, with responses from ASFPM members and other professionals in floodplain management. We welcome questions about NAI that you would like to have answered, too. Send them to the Editor at the email address on the last page of this issue.

QUESTION Why call it "no adverse impact?" It's obviously impossible to have no impact.

ANSWER NAI is a goal and an approach. A community strives for that goal by (1) making sure it determines the specific adverse impacts of any proposed development activity in the watershed, and (2) mitigating those adverse impacts. It doesn't mean that no change is allowed in the floodplain. It simply means that the community determines what effects development will have on flood heights or velocities or the level of potential flood damage elsewhere in the watershed—and ensures that those effects are mitigated. How those impacts are mitigated would be defined in the local community plan—do such impacts require compensation? easements? sign-off letters from other landowners? Are certain defined limits allowable, as adopted in the comprehensive plan? Are the residents and businesses who are adversely affected by development made aware of the impacts and allowed to participate in the process of deciding how they will be minimized?

The whole idea is to get away from the current process, which allows the impacts of activities to worsen the flood levels, velocities, erosion and sedimentation, and other damage through one or more actions. The current national approach ignores many single (and most cumulative) impacts, which is why flood damage continues to increase, flood maps continue to become outdated shortly after they are released, etc. This is also why these problems will continue to occur—unless we change how we view activities in the watershed.

QUESTION Does NAI put the ASFPM out in front of its members, rather than in concert with them?

ANSWER The experience of those of us who have made presentations is that NAI is actually in sync with where many state and local floodplain managers are in their thinking and practice today. After hearing the NAI presentation, many people have come up to tell us that they are already doing a number of the elements of NAI in their community—they just have not put the NAI name to it. They like the concept of "no adverse impact," because they feel it provides an appropriate and consistent context and rationale for landowners, developers, and public officials to make wise decisions about uses of the floodplain and watershed.

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ABOUT NAI

For too long, flood losses in the United States have continued to rise, despite the best efforts of everyone concerned with floodplain management. The ASFPM believes that this situation is the result of several decades of well-intentioned but misguided flood reduction policies. It can best be remedied by adopting a much broader guiding principle. That principle is "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 already being put into action in hundreds of communities across the United States, by checking the ASFPM's web site at <http://www.floods.org>.

CHANGE IN NFIP CRAWLSPACE POLICY

In many parts of the country it is a common practice to construct crawlspaces under residential buildings so that the interior floor of the crawlspace is one or two feet below grade, by either backfilling against the exterior of the foundation wall or excavating the crawlspace area to construct footings that result in a below-grade floor. Below-grade crawlspaces, however, have been considered basements under the National Flood Insurance Program regulations and not permitted below the base flood elevation (BFE). This requirement was based on concern that below-grade crawlspace foundation walls were subject to additional risk of flood damage as a result of increased hydrostatic and soil loadings on the walls during flood conditions.

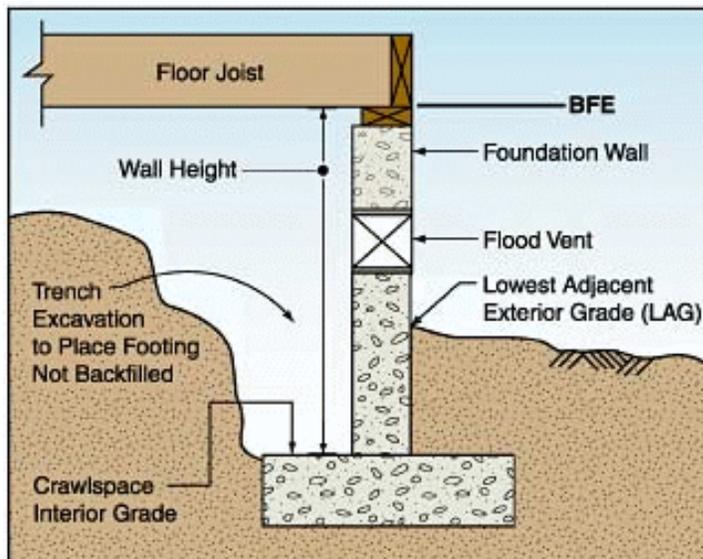
The Federal Emergency Management Agency has recently revised its policy on crawlspaces, after an engineering analysis of the performance of such crawlspace foundation walls and a review of claims history for crawlspace flood damage. New interim guidance has been incorporated into Technical Bulletin 11-01, *Crawlspace Construction for Buildings Located in Special Flood*

Hazard Areas. According to the guidance, communities may allow below-grade residential crawlspace construction in the Special Flood Hazard Area provided that the interior grade of the crawlspace is no lower than two feet below the lowest adjacent grade, the height of the crawlspace (measured from the interior grade of the crawlspace to the top of the crawlspace wall) does not exceed four feet at any point, and the building meets other limitations. Below-grade crawlspaces that meet these requirements will not be considered basements for NFIP purposes. Although communities may now allow below-grade crawlspace construction, the Technical Bulletin continues to recommend that the interior of the crawlspace be backfilled so that the interior grade is level to or higher than the lowest adjacent grade to the building. FEMA may eventually incorporate the new guidance into the NFIP regulations.

<<<Technical Bulletin 11-01 is on FEMA's website at <http://www.fema.gov/mit/techbul.htm>.

A Floodplain Manager's NOTEbook

The Federal Emergency Management Agency recently issued Technical Bulletin 11-01 dealing with crawlspace construction [see article above]. Be sure to look carefully at the very narrow conditions



under which "below-grade" crawlspaces will be allowed in flood hazard areas with shallow flooding.

This figure, modified from TB 11-01, illustrates one circumstance that may be easy to miss—when a trench is excavated for placement of the foundation footing and then isn't backfilled. Based on the guidance, backfilling is not required—and the "below-grade" crawlspace is compliant *provided that* the outlined height limits are met. More than likely this won't happen very often.

Note that TB-11 is online at <http://www.fema.gov/mit/techbul.htm>.

Contributed by Rebecca Quinn • RCQuinn Consulting, Inc. • www.rcquinnconsulting.com

Washington Report

FUTURE CONDITIONS TO BE ON FIRMS

The Federal Emergency Management Agency has issued a final rule revising the National Flood Insurance Program regulations to allow a floodplain delineation based on future-conditions hydrology to be depicted on Flood Insurance Rate Maps at the request of a community. If a community asks FEMA to do so, the new delineation will be depicted on the printed FIRM as a shaded Zone X, with no base flood elevations shown. The future-conditions BFEs will be included in the Flood Insurance Study report. Buildings located in the future-conditions floodplains will not be required to purchase flood insurance, nor will new premium rates be calculated. The future-conditions floodplain delineation is FEMA's way of supplying additional flood risk information on the maps, alerting the public that flood hazards may increase in the future as a result of urban development, and supporting progressive communities that would like to implement stricter land use regulations than are required under the NFIP.

The ASFPM has long favored using the future conditions within a watershed as the foundation for planning, mapping, and management of efforts to reduce flood losses; thus FEMA's new rule is a step in the right direction. In the comments it provided when the rule was proposed last summer, the ASFPM urged FEMA to go even further and incorporate future conditions in all maps and require communities to use that floodplain and profile for regulation unless they have a comprehensive plan in place to ensure that future development does not increase flood levels. As an alternative, the ASFPM suggested, incentives (such as more favorable cost-shares) could be provided to encourage communities to adopt the future-conditions maps for zoning and other management techniques.

The ASFPM's suggestions on the guidance for what constitutes "future conditions" were incorporated into the final definition, which specifies that planned structural modifications that would reduce peak flows (impoundments or levees, for example) are not to be included in the calculation of future conditions. Such watershed modifications should only be considered after the structures are built and maintenance plans are in place and enforceable.

<<<The full rule was published in the November 27, 2001 *Federal Register*, Vol. 66, No. 228, pp. 59166–59171, accessible at <http://www.access.gpo.gov>

PROBATION IMPENDING FOR MONROE COUNTY

In mid January the Federal Emergency Management Agency informed Monroe County, Florida, officials that the unincorporated areas of the county may be placed on

probationary status with the National Flood Insurance Program (NFIP) because of ongoing deficiencies in the local floodplain management program.

Probation will begin May 31, 2002, unless the county takes measures before then to bring its floodplain management program into compliance with minimum NFIP requirements and begins to address all identified violations of its flood damage prevention ordinance. The probationary notice cited specific deficiencies in the county's floodplain management efforts, including inadequate enforcement that has resulted in as many as 2,000–4,000 illegal enclosures constructed under elevated buildings. The notice specifies actions required of the county to avoid probation and potential suspension from the NFIP.

Monroe County is in the extreme southern portion of Florida, and encompasses most of the Florida Keys. Unincorporated Monroe County has 28,799 flood insurance policies in force, representing more than \$4 billion in coverage. Since 1978 FEMA has paid over \$42 million for 7,376 claims for flood damage.

Probation will not affect the availability of flood insurance for property owners in the county, but a \$50 surcharge will be added to the premium for each new or renewed flood insurance policy sold within unincorporated Monroe County. This surcharge will be in place for one year or for the duration of the probationary period, whichever is longer. If Monroe County ultimately were to be suspended from the NFIP, then flood insurance coverage, some forms of federal disaster assistance, and other federal grants and loans would no longer be available within the community.

FEMA's regional office in Atlanta (Region IV) will continue to work closely with County officials to provide technical assistance and consultation to help it remedy the violations and achieve compliance.

LEGISLATIVE REPORT

Off We Go Again

The Congress is back as of January 23rd, kicking off the 2nd session of the 107th Congress. The break was unusually short because the first session wrapped up so late. Members are returning not only to all the holdover business (notably economic stimulus legislation and the farm bill) but also to consideration of a new budget.

The Budget is the Story

The federal budget for Fiscal Year 2003 was set to be released on February 4th [*see front page of this issue*]. To a great extent, the Administration's budget request will set
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Washington Report (cont.)

the legislative agenda for this Congressional session. Based on all indications, including the President's State of the Union message, the budget will include significant amounts for homeland security and the war on terrorism. In speaking to the Conference of Mayors, the President indicated that the FY2003 budget would include \$37.7 billion for homeland security, nearly double the \$19.5 billion in the FY2002 budget. Because these funds will be distributed to a large number of federal department and agencies, coordination and tracking will be interesting. Apparently, the funds involve some 2,000 separate accounts. It is likely that there will be reductions in many budget areas to partially compensate and it is also likely that there will be proposed programmatic changes designed to streamline, consolidate, or alter programs related to attempts to save money and enhance efficiency. Many of these changes proposed in the budget will certainly form the basis for Congressional hearings this year. Because of programmatic content, this will doubtless often involve the authorizing committees. The appropriations subcommittees will begin their hearings to evaluate the agencies' budget requests soon after the budget is received on Capitol Hill.

The Federal Emergency Management Agency's budget will be affected by increases for homeland security. As a result, there could be some program rearrangement at FEMA. Additionally, some NFIP cutbacks were predicted in an article in *USA Today*. There could be some positive news on support for floodplain map modernization.

In his speech to the nation's mayors, the President indicated that substantial funds for first-responder needs would go to FEMA for distribution to state and local offices. FEMA will have the lead in training and response. The President said that \$2 billion would fund equipment, \$1.6 billion would be for training, \$245 million would go for preparedness drills, and \$105 million would finance development of emergency plans.

Congressional Agenda

Committees have been meeting to establish their agendas and hearing schedules for the year. Much will be subject to change.

At this point, the House Appropriations Committee's Subcommittee on Veterans Affairs-Housing and Urban Development-Independent Agencies will hold its hearing on FEMA's budget on March 6th. The Environmental Protection Agency's budget will be considered on March 12th and the Council on Environmental Quality's on March 20th. The House Interior Subcommittee will consider the U.S. Geological Survey's budget on March 7th, the Forest Service on March 13th and the National Park Service on April 10th. The Energy and Water Subcommittee has not scheduled hearings with the U.S. Army Corps of Engineers.

The Senate Appropriations Committee's VA-HUD Subcommittee will probably hold its hearing on FEMA's budget in late April.

The House Financial Services Committee has indicated that it would like to take action on the various bills dealing with the NFIP repetitive loss problem. The subcommittee held a hearing last summer at which ASFPM testified. Floodplain mapping is another likely subject of inquiry.

The House Transportation and Infrastructure Committee and Senate Environment and Public Works Committee will begin development of a Water Resources Development Act 2002. Legislative suggestions from the Corps are not likely until late in the spring.

The Senate Banking Committee will hold a hearing on the probable nominee for Administrator of the newly merged Federal Insurance and Mitigation Administration. The Administration announced its intent to nominate Anthony Lowe, presently Senior Legislative Counsel to the Senate Judiciary Committee's Subcommittee on Antitrust, Business Rights and Competition. Previously, he was a Deputy Prosecutor for King County in Seattle, Washington. He was an Associate Director at the International Center for Economic Growth and International Center for Self-Governance programs of the Institute of Contemporary Studies. From 1988 to 1990, he was Legislative Assistant to Senator Slade Gorton of Washington.

Other News

The EPA is close to final sign-off on its report on the natural and beneficial functions of floodplains. Look for it early this spring.

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

PROTECTION OF CRITICAL INFRASTRUCTURE ORDERED

In order to ensure protection of information systems for critical infrastructure, including emergency preparedness communications, President Bush issued Executive Order 13231 on October 16, 2001. Because information technology has changed the way business is transacted, government operates, and national defense is conducted, these systems now rely on an interdependent network of critical information infrastructures. The protection program authorized by this order "shall consist of continuous efforts to secure information systems for critical infrastructure, including emergency preparedness communications, and the physical assets that support such systems."

The order states that it is the policy of the United States to protect against disruption of these systems, thus helping to protect the people, economy, essential human and government systems, and national security of the United States, and to ensure that any disruptions are infrequent, of minimal duration, manageable, and cause the least damage possible. The implementation of this policy will include

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establishment of a voluntary public-private partnership that involves corporate and nongovernmental organizations.

The order creates the "President's Critical Infrastructure Protection Board" to coordinate federal efforts and facilitate cooperation with the private sector, state and local governments, academic organizations, and federal agencies. The director of the Office of Management and Budget will oversee the implementation of government-wide policies, principles, standards, and guidelines for the security of executive branch information systems. The Secretary of Defense and the Director of Central Intelligence will perform similar functions for the operations under their respective control. The heads of executive branch departments and agencies are responsible and accountable for providing and maintaining adequate levels of security for information systems under their control.

The newly established board will coordinate outreach to the private sector and state and local governments; academia; and the private sector, particularly businesses involved in telecommunications, transportation, energy, water, health care, and financial services. The board will also assist in the development of voluntary standards and best practices, as well as consult with potentially affected communities and sectors. It will also work on policies and programs related to information sharing; incident coordination and crisis response; recruitment, retention, and training of security professionals for the executive branch; research and development; law enforcement coordination with national security components; international infrastructure protection; legislation; and coordination with the recently established Office of Homeland Security.

The order also establishes the National Infrastructure Advisory Council (NIAC) to advise the president on the security of information systems in banking and finance, transportation, energy, manufacturing, and emergency government services. Thirty members will be appointed by the president and will represent the private sector, academia, and state and local government.

<<<Executive Order 13231 appeared in the October 16, 2001, *Federal Register* (Vol. 66, No. 202, pp. 53063-53071). It can be accessed at <http://www.access.gpo.gov>.

[reprinted from the
Natural Hazards Observer, January 2002, p. 5]

NAS RECOMMENDS RESTORATION OF MISSOURI RIVER

The National Academy of Sciences reported in January that more-natural flows are needed in the Missouri River if major ecosystem damage and species disappearance are to be avoided. The Academy's statement was issued in conjunction with the impending release of a major report by the Water Science and Technology Board of the NAS's National Research Council. The report, *The Missouri River Ecosystem: Exploring the Prospects for Recovery*, is the product of a two-year study done at the request of the U.S. Army Corps of Engineers and the Environmental Protection Agency. It concludes that there have been substantial reductions in the daily and annual variability of hydrologic and geomorphic processes of the river and its floodplain and that there have been significant reductions in natural habitat and in the abundance of native species. The report summarizes the changes to the river that have so

jeopardized its ecosystem as including "the loss of natural flood pulses; the loss of natural low flows; straightening of stream meanders and the elimination of cut-and-fill alluviation; losses of natural riparian vegetation; reductions in water temperature variation; introduction of nonnative species, and extensive bank stabilization and stream channelization."

While commending the several habitat preservation and restoration projects the Corps has underway in the Missouri basin (in cooperation with the U.S. Fish and Wildlife Service and state agencies), the NAS noted that their limited scope makes them insufficient to noticeably recover the river's basic physical processes and ecological communities. An overarching plan is needed that will also address restoration of important elements of the river's pre-regulation hydrologic and geological processes. In particular, the NAS recommended an "adaptive management" approach to Missouri River and floodplain ecosystem management. That strategy recognizes that scientific uncertainties and unforeseen environmental changes are inevitable and thus attempts to devise organizations and policies that can adapt to and benefit from those changes. Adaptive management emphasizes the use of carefully designed and monitored experiments to obtain scientific data on which to base adjustments to existing policies. It necessitates the establishment of clear goals and outcomes so that progress can be identified. The concept is being used to guide restoration in the Colorado River, the Columbia River, and the Everglades, among other places, the NAS said.

American Rivers and other conservation groups hailed the NAS report as "the boldest stance to date on Missouri River restoration." The report is being issued as a book from the National Academy Press, but copies have not yet been printed. However, a pre-publication version of the report is available for online reading at <http://www.nap.edu/books/0309083141/html>.

NFIP Year in Review (cont.)

Allison—The costliest single flood event in NFIP history, Tropical Storm Allison caused flood losses in Texas, Louisiana, and other areas resulting in over 30,000 claims; the final payout will exceed \$1 billion.

Training—The NFIP trained 12,722 agents at 398 insurance agent seminars throughout the country and held 133 lender workshops for 2,433 participants. Two versions of a new web-based training module on the elevation certificate became available online [see *News & Views*, December 2001, p. 3] at <http://training.nfipstat.com/ecsurveyor/>. A total of 2,715 agents used the Agent Training Station at <http://training.nfipstat.com> for the basic and/or advanced version of the agent tutorial.

<<<For more on the NFIP in 2001, see http://www.fema.org/nwz01/nwz01_177.htm.

State and Local Report

PENNSYLVANIA WATERSHED EDUCATION PROGRAM HONORED

The Pennsylvania Department of Conservation and Natural Resources's Watershed Education Program earned the international "Outstanding Service to Environmental Education Award" from the North American Association for Environmental Education last fall. The statewide initiative is geared toward 6th through 12th grade students and their teachers, and integrates technology through an interactive website and database, allowing students to research information, enter and compare data, and share what they have learned. They can pick a waterway and focus their studies on its historical, cultural, and geological features, while noting physical, chemical and biological parameters; thus they learn about both the human and environmental factors that affect watersheds throughout Pennsylvania. Last school year, DCNR's Bureau of State Parks worked with 60 schools and civic groups on watershed education projects, reaching 2,583 teachers and students. The program also enables teachers or civic group leaders to attend workshops hosted at area state parks by park environmental educators.

<<<The program is accessible at <http://www.state.pa.us>. In the "PA Keyword" space, enter the words "watershed education."

OHIO FUNDS COMMUNITY RIVER WORK

The Ohio Environmental Protection Agency has developed a creative way for communities to fund stream and wetland restoration work. An existing state program provides low-interest loans to municipalities for wastewater treatment projects. Under the new arrangement, if a community adds an approved stream restoration project to its treatment works project, it can reduce the total amount of money owed to the state on the initial loan. This is accomplished by reducing the interest rate on the loan by 0.1% and applying the earnings to the stream restoration project funds. The city of Vermilion was the first to participate. The city received a \$1.66 million, low-interest, 20-year loan from the state program to repair the city's wastewater collection and treatment facilities. It also developed a plan for its county park district to purchase, restore, and protect undeveloped property along the Vermilion River. This addition reduced the interest rate, saving the city \$1.18 million in interest payments over the life of the loan and freeing that money to be used for the restoration of the river.

<<<For information, contact Bob Monsarrat, Ohio Environmental Protection Agency, P.O. Box 1049, Columbus, OH 43216; (614) 644-3655.

[*excerpted from Nonpoint Source News-Notes, January 2002, p. 17.*]

DFIRM A REAL ACHIEVEMENT

Last fall the Illinois Section of the American Society of Civil Engineers named the Cook County, Illinois, Digital Flood Insurance Rate Map (DFIRM) as the winner of the 2001 Outstanding Civil Engineering Achievement of the Year. The Cook County DFIRM was produced by the Federal Emergency Management Agency's Hazard Mapping Division using new map modernization techniques. The new DFIRMs update the mapping for over 120 communities in Cook County, incorporate the restudy of approximately 250 stream miles, and consist of 260 new DFIRM panels.

The maps are the culmination of years of effort and cooperation among the Illinois Department of Natural Resources' Office of Water Resources, local communities, FEMA, and other state and regional agencies. The Cook County countywide DFIRM is one of the largest and most complex in the country.

[*reprinted from IAFSM News, Winter 2001-2002, p. 9*]

CALIFORNIA RIVERS ASSESSED

For the past 150 years California's rivers have been harnessed for mining, agriculture, flood control, and urban growth and have been a driving force in the state's economy. But many of these activities have put the waterways at risk, according to the Trust for Public Land, a national nonprofit land conservation organization that has just issued the first-ever survey and report on the health of California's major rivers. *The State of California's Rivers* concludes that the majority of the state's rivers are both over-allocated and at risk for poor water quality. Their natural function is at risk due to dams, diversions, and hydropower. The challenge is to balance the rivers' use for these purposes with maintaining their health for the benefit of both humans and wildlife.

The 118-page report was developed to serve as a tool for all for those involved in river protection and restoration efforts, including local, state, and federal agencies, nonprofits, and individuals. The report divides the state into seven major hydrologic basins. The text describes the important biological and physical aspects of each watershed and river, threats to river system health, the trend of river protection and restoration efforts, and information on public access and recreation. Contact information for entities involved in each watershed is given. The guide has over 80 specially created maps, including one for each watershed using land ownership as the base; and one for each basin using vegetative cover and topography as bases.

<<<To get more information or to sign up to have a copy of *The State of California Rivers* sent to you, see http://www.tpl.org/tier3_cd.cfm?content_item_id=6143&folder_id=266. Chapters of the report in pdf format will be posted on the site over the next few months.

2001 BIG, BUT NOT BIGGEST, WORLD LOSS YEAR

Munich Re, one of the world's leading reinsurance groups, has produced its annual review of global natural hazard losses for 2001. In the past year at least 25,000 people lost their lives in natural catastrophes (compared to 10,000 the previous year). Around 700 such loss events were recorded, above the long-term average (650) but well below the record of 850 events set in 2000. Economic losses attributed to natural catastrophes amounted to about \$36 billion (U.S. dollars), exceeding the previous year's figure (\$30 billion). There was an even greater increase in insured losses, which rose from \$7.5 billion in 2000 to \$11.5 billion. This is around 50% of the extraordinarily high level of insured losses tallied in 1999.

Windstorms and floods accounted for over two-thirds of the world's natural catastrophes in 2001 and 91% of insured losses. The hurricane season had above-average activity, with nine hurricanes in the North Atlantic and the Caribbean, but did not result in extreme losses. In the Far East, on the other hand, new record losses were caused by a series of large typhoons. Other highlights of 2001 were:

- The outstanding event of the year was Tropical Storm Allison, which caused losses of \$6 billion (\$ 3.5 billion insured) in the United States. It went down in history as the costliest non-hurricane tropical storm of all time.
- Floods with serious human and economic losses hit Australia, Russia, Poland, China, Argentina, and Algeria.

- Typhoon Nari was the costliest windstorm catastrophe in Taiwan's insurance history, with insured losses of about \$600 million.

Other significant loss events around the world were earthquakes, hailstorms, heat waves, droughts, and forest fires. At the end of the year unusual weather extremes were again encountered throughout the world: forest fires in Australia, floods in Brazil and Turkey, snow chaos in central and southern Europe, and a typhoon in Singapore that had been considered meteorologically impossible. All these, according to Munich Re, are evidence for a connection between climate change and increasing weather-related catastrophes. The World Meteorological Organization has calculated 2001 to be the second-warmest year since systematic temperature measurements began about 160 years ago (1998 was the warmest).

The greatest burden carried by the insurance industry in the year 2001 was caused by terrorism. An additional major natural catastrophe would have stretched the capacity of the international insurance industry a great deal further.

Owing to the increase in world population and insured values, especially in highly exposed areas and densely developed urban centers, Munich Re expects significantly steeper growth in insured losses from natural catastrophes than in economic losses.

<<<See <http://www.munichre.com>.

Calendar

The Association of State Floodplain Managers maintains a list of flood-related meetings, conferences, and training at <http://www.floods.org/calendar.htm>.

February 23–27, 2002: WATERSHED 2002, Fort Lauderdale, Florida. Sponsored by the Water Environment Federation, the Florida Water Environment Association, and others. Contact the WEF at 601 Wythe St., Alexandria, VA 22314-1994; (703) 684-2442; fax: (703) 684-2413.

February 23–27, 2002: 2002 Mid-year Conference of the National Emergency Management Association, Washington, D.C. Contact: NEMA, c/o The Council of State Governments, P.O. Box 11910, Lexington, KY 40578-1910; fax: (859) 244-8239 or see <http://www.nemaweb.org/Meetings/Conference.cfm>.

February 24–28, 2002: SOLUTIONS TO COASTAL DISASTERS, San Diego, California. Sponsored by the Coasts, Oceans, Ports, and Rivers Institute, the American Society of Civil Engineers; the Coastal Zone Foundation; the ASFPM, and others. Contact Lesley Ewing, California Coastal Commission, 45 Fremont St., Ste. 2000, San Francisco, CA 94105; (415) 904-5291; fax: (415) 904-5400; lewing@coastal.ca.gov or see <http://www.coastal.ca.gov/cdsolutions>.

February 25—March 1, 2002: 33RD ANNUAL CONFERENCE AND EXPO OF THE INTERNATIONAL EROSION CONTROL ASSOCIATION, Orlando, Florida. Contact IECA at P.O. Box 774904, Steamboat Springs, CO 80477-4904; (970) 879-3010; fax: (970) 879-8563 or see <http://www.ieca.org>.

- February 27—March 1, 2002:** FIFTH MITIGATION BANKING CONFERENCE, Washington, D.C. Sponsored by the Terrene Institute. Contact the Terrene Institute at (703) 548-5473 or see <http://www.terrene.org>.
- March 1–2, 2002:** NATIONAL SEVERE WEATHER WORKSHOP, Norman, Oklahoma. Sponsored by the National Oceanic and Atmospheric Administration's National Weather Service, Central Oklahoma Chapter of the American Meteorological Society/National Weather Association, and the Oklahoma Emergency Managers Association. For more information, see <http://www.nssl.noaa.gov/nsww2002>.
- March 3–8, 2002:** ENVIRONMENTAL FLOWS FOR RIVER SYSTEMS: AN INTERNATIONAL WORKING CONFERENCE ON ASSESSMENT AND IMPLEMENTATION, Cape Town, South Africa. Contact Charles Pemberton, Southern Waters Ecological Research and Consulting at cpemberton@southernwaters.co.za or see <http://www.southernwaters.co.za/conference/index.html>.
- March 6–7, 2002:** ANNUAL CONFERENCE OF THE ILLINOIS ASSOCIATION FOR FLOODPLAIN AND STORMWATER MANAGEMENT, Springfield, Illinois. Contact Jerry Robinson, Christopher B. Burke Engineering, 9575 W. Higgins Rd., Ste. 600, Rosemont, IL 60018; fax: (847) 823-0520; jrobinson@cbbel.com.
- March 11–15, 2002:** MANAGING FLOODPLAIN DEVELOPMENT THROUGH THE NATIONAL FLOOD INSURANCE PROGRAM, Emergency Management Institute, Emmitsburg, Maryland. Contact EMI at 1-800-238-3358 or see <http://www.fema.gov/emi/>.
- March 11–15, 2002:** RESIDENTIAL COASTAL CONSTRUCTION, Emergency Management Institute, Emmitsburg, Maryland. Contact EMI at 1-800-238-3358 or see <http://www.fema.gov/emi/>.
- March 18, 2002:** NO ADVERSE IMPACT: SPRING TECHNICAL TRAINING OF THE OKLAHOMA FLOODPLAIN MANAGERS ASSOCIATION, Oklahoma City, Oklahoma. Contact OFMA, P.O. Box 8101, Tulsa, OK 74101-8101; (405) 530-8800 or see <http://www.okflood.org>.
- March 25–29, 2002:** NATIONAL FLOODPROOFING CONFERENCE II, Tampa, Florida. Sponsored by the ASFPM, the Federal Emergency Management Agency, the U.S. Army Corps of Engineers, and others. Contact the ASFPM Executive Office, 2809 Fish Hatchery Rd., Madison, WI 53713-3120; (608) 274-0123; memberhelp@floods.org or see <http://www.floods.org>.
- April 1–5, 2002:** 2002 NATIONAL HURRICANE CONFERENCE, Orlando, Florida. Contact National Hurricane Conference, 2952 Wellington Circle, Tallahassee, FL 32309; (850) 906-9224; fax: (850) 906-9228; mail@hurricanemeeting.com or see <http://www.hurricanemeeting.com>.
- April 4–7, 2002:** IAEM 2002 Mid-year Workshop, Emmitsburg, Maryland. Contact International Association of Emergency Managers at 111 Park Place, Falls Church, VA 22046; (703) 538-1795; fax: (703) 241-5603; info@iaem.com or see http://www.iaem.com/2002_mid-year_program.html.
- April 7–10, 2002:** FLOODPLAIN MANAGEMENT PLANNING CONFERENCE, San Diego, California. Sponsored by the Floodplain Management Association. Contact Laura Hromadka at (949) 766-8112; fax: (949) 459-8364; fmalaura@home.com.
- April 8–12, 2002:** MANAGING FLOODPLAIN DEVELOPMENT THROUGH THE NATIONAL FLOOD INSURANCE PROGRAM, Emergency Management Institute, Emmitsburg, Maryland. Contact EMI at 1-800-238-3358 or see <http://www.fema.gov/emi/>.
- April 8–12, 2002:** DIGITAL HAZARD DATA, Emergency Management Institute, Emmitsburg, Maryland. Contact EMI at 1-800-238-3358 or see <http://www.fema.gov/emi/>.
- April 15–17, 2002:** MITIGATING SEVERE WEATHER IMPACTS IN URBAN AREAS, Houston, Texas. Sponsored by the International Center for Natural Hazards and Disaster Research, Texas Medical Center, and others. Contact anthony@rice.edu or bedient@rice.edu or see <http://www.rice.edu/flood> or <http://nhdr.ou.edu/>.
- April 15–19, 2002:** THE COMMUNITY RATING SYSTEM, Emergency Management Institute, Emmitsburg, Maryland. Contact EMI at 1-800-238-3358 or see <http://www.fema.gov/emi/>.
- April 17–18, 2002:** 2002 NEW YORK STATE WETLANDS FORUM ANNUAL CONFERENCE, Syracuse, New York. Co-sponsored by the Association of State Wetlands Managers, the U.S. Army Corps of Engineers, and others. Contact Christine DeLorier, U.S. Army Corps of Engineers, 1 Bond Street, Troy, NY 12180; (518) 273-7420; fax: 518-273-2055; Christine.DeLorier@usace.army.mil; or see <http://www.wetlandsforum.org/event/2002am>.
- April 25—May 3, 2002:** 25TH CONFERENCE ON HURRICANES AND TROPICAL METEOROLOGY, San Diego, California. Sponsored by the American Meteorological Society. Contact the AMS at 45 Beacon Street, Boston, MA 02108-3693; (617) 227-2425; fax: (617) 742-8718; amsinfo@ametsoc.org or see <http://www.ametsoc.org/AMS/>.

- May 9–10, 2002:** ECOSYSTEMS RESTORATION AND CREATION: 29TH ANNUAL CONFERENCE, Tampa, Florida. Sponsored by Hillsborough Community College, Institute of Florida Studies. Contact HCC, Institute of Florida Studies, Plant City Campus, 1206 N. Park Rd., Plant City, FL 33566; (813) 757-2104.
- May 12–16, 2002:** COASTAL ZONE ASIA-PACIFIC: IMPROVING THE STATE OF THE COASTAL AREAS, Bangkok, Thailand. Contact Ratana Chuenpagdee, Conference Coordinator, Virginia Institute of Marine Science, P.O. Box 1346, Gloucester Point, VA, 23062; (804) 684-7335; fax: (804) 684-7843; ratana@vims.edu or see <http://www.vims.edu/czap>.
- May 13–15, 2002:** COASTAL WATER RESOURCES, New Orleans, Louisiana. Sponsored by the American Water Resources Association. Contact AWRA at 4 West Federal St., P.O. Box 1626, Middleburg, VA 20118; (540) 687-8390 or see <http://www.awra.org>.
- May 17–21, 2002:** RIVER RALLY 2002, Asheville, North Carolina. Sponsored by the River Network. Contact Robin Chanay at (20) 364-2550; riverrally@rivernetwork.org.
- May 19–22, 2002:** NATIONAL FLOOD CONFERENCE, New Orleans, Louisiana. Sponsored by the Federal Emergency Management Agency, National Flood Insurance Program. Contact Catherine King, NFIP Bureau, 7700 Hubble Dr., Lanham, MD 20706; fax: (301) 918-1471; catherine.king@fema.gov.
- May 19–22, 2002:** CONVERGING CURRENTS: SCIENCE, POLICY AND CULTURE AT THE COAST—THE COASTAL SOCIETY'S 2002 CONFERENCE, Galveston, Texas. For more information contact The Coastal Society at coastalsoc@aol.com or see <http://www.thecoastalsociety.org/tcs18/>.
- May 27—June 21, 2002:** SUMMER INSTITUTE IN COASTAL MANAGEMENT, Narragansett, Rhode Island. Sponsored by the Coastal Resources Center, University of Rhode Island. Contact Kimberly Kaine, Coastal Resources Center, University of Rhode Island, (401) 874-6224; fax: (401) 789-4670; kkaine@gso.uri.edu or see http://crc.uri.edu/train/SI2002_app.html.
- May 28–30, 2002:** SECOND TSUNAMI SYMPOSIUM, Honolulu, Hawaii. Sponsored by The Tsunami Society. Contact The Tsunami Society, P.O. Box 37970, Honolulu, HI 96817 or James Lander, Conference Chairperson, at (303) 497-6446; jfl@ngdc.noaa.gov.
- May 29–31, 2002:** FOURTH CONFERENCE AND EXPOSITION OF ALERT~FLOWS EAST COAST USERS GROUP, Philadelphia, Pennsylvania. Contact Timothy E. Scrom, 285 Oak Ln., Stillwater, NY 12170; (518) 435-9571; SE_Tech@yahoo.com.
- May 30–31, 2002:** HURRICANE ANDREW 10-YEAR ANNIVERSARY CONFERENCE, Miami, Florida. Sponsored by the National Hurricane Center and Florida International University. Contact Ricardo Alvarez, National Hurricane Center, Florida International University—CEAS 2710; Miami, FL 33199; (305) 348-1607; fax: (305) 348-1605; alvarez@fiu.edu or hurricane@fiu.edu; <http://www.ihc.fiu.edu>.
- June 23–28, 2002:** BREAKING THE CYCLE OF REPETITIVE FLOOD LOSS—TWENTY-SIXTH ANNUAL CONFERENCE OF THE ASSOCIATION OF STATE FLOODPLAIN MANAGERS, Phoenix, Arizona. Contact the ASFP Executive Office, 2809 Fish Hatchery Rd., Ste. 204, Madison, WI 53713-3120; (608) 274-0123; fax: (608) 274-0696; asfpm@floods.org or see <http://www.floods.org>.
- July 1–3, 2002:** GROUND WATER/SURFACE WATER INTERACTIONS. Sponsored by the American Water Resources Association (AWRA). Keystone, Colorado. Contact Michael J. Kowalski, AWRA, 4 West Federal Street, P.O. Box 1626, Middleburg, VA 20118-1626; (540) 687-8390; fax: (540) 687-8395; mike@awrz.org or see <http://www.awra.org>.
- July 23–26, 2002:** INTEGRATED TRANSBOUNDARY WATER MANAGEMENT: ANNUAL CONFERENCE OF THE UNIVERSITIES COUNCIL ON WATER RESOURCES, Traverse City, Michigan. Co-sponsored by the Environmental and Water Resources Institute, National Ground Water Association, and U.S. Army Corps of Engineers. Contact UCOWR, Southern Illinois University, 4543 Faner Hall, Carbondale, IL 62901-4526; (618) 536-7571; fax: (618) 453-2671; ucowr@siu.edu or see <http://www.uwin.siu.edu/ucowr/>.
- July 29—August 2, 2002:** THE COMMUNITY RATING SYSTEM, Emergency Management Institute, Emmitsburg, Maryland. Contact EMI at 1-800-238-3358 or see <http://www.fema.gov/emi/>.
- August 12–15, 2002:** STORMCON™: THE NORTH AMERICAN SURFACE WATER QUALITY CONFERENCE & EXPOSITION, Marco Island, Florida. Sponsored by Forester Communications and *Stormwater* magazine. Contact Forester Communications, P.O. Box 3100, Santa Barbara, CA 93130; (805) 681-1300 x12; sweditor@forestor.net.

- August 26–30, 2002:** DIGITAL HAZARD DATA, Emergency Management Institute, Emmitsburg, Maryland. Contact EMI at 1-800-238-3358 or see <http://www.fema.gov/emi/>.
- September 2–6, 2002:** INTERNATIONAL CONFERENCE ON QUANTITATIVE PRECIPITATION FORECASTING, University of Reading, United Kingdom. Sponsored by the World Meteorological Organization's World Weather Research Programme and the Royal Meteorological Society. Abstract deadline is March 1, 2002. Contact the Executive Secretary at execsec@royal-met-soc.org or see <http://www.met.rdg.ac.uk/qpf/announcement.html>.
- September 2–11, 2002:** WORLD SUMMIT ON SUSTAINABLE DEVELOPMENT (RIO +10). Johannesburg, South Africa. Contact Johannesburg Summit Secretariat, Division for Sustainable Development, United Nations Department of Economic and Social Affairs, Two United Nations Plaza, DC2-2220, New York, NY 10017; dss@un.org or see <http://www.johannesburgsummit.org>.
- September 8–11, 2002:** DAM SAFETY 2002, Tampa, Florida. Sponsored by the Association of State Dam Safety Officials. Contact ASDSO, 450 Old Vine St., 2nd Floor, Lexington, KY 40507; (859) 257-5140; fax: (859) 323-1958; info@damsafety.org.
- September 9–13, 2002:** RESIDENTIAL COASTAL CONSTRUCTION, Emergency Management Institute, Emmitsburg, Maryland. Contact EMI at 1-800-238-3358 or see <http://www.fema.gov/emi/>.
- September 11–13, 2002:** SIXTH ANNUAL MEETING OF THE INDIANA ASSOCIATION FOR FLOODPLAIN AND STORMWATER MANAGEMENT, Turkey Run State Park, Indiana. Contact INAFSM at 115 W. Washington St., Suite 1368S, Indianapolis, IN 46204; <http://www.inafsm.org>.
- September 23–25, 2002:** OKLAHOMA FLOODPLAIN MANAGERS ASSOCIATION ANNUAL FALL CONFERENCE, Lone Wolf, Oklahoma. Contact OFMA, P.O. Box 8101, Tulsa, OK 74101-8101; (405) 530-8800 or see <http://www.okflood.org>.
- October 7–9, 2002:** WETLANDS 2002: RESTORING IMPAIRED WETLANDS AND OTHER WATERS, Indianapolis, Indiana. Sponsored by the Association of State Wetlands Managers. Abstracts are due March 1, 2002 to Tammy Taylor at taylor@ctic.purdue.edu. For registration information contact ASWM, Inc., (518) 872-1804; aswm@aswm.org or see <http://www.aswm.org>.
- October 12–16, 2002:** ANNUAL MEETING OF THE INTERNATIONAL ASSOCIATION OF EMERGENCY MANAGERS, Columbus, Ohio. Contact IAEM, 111 Park Place, Falls Church, VA 22046; (703) 538-1795; fax: (703) 241-5603; info@iaem.com or see http://www.iaem.com/2002_mid-year_program.html.
- May 11–16, 2003:** TWENTY-SEVENTH ANNUAL CONFERENCE OF THE ASSOCIATION OF STATE FLOODPLAIN MANAGERS, St. Louis, Missouri. Contact the ASFPM Executive Office, 2809 Fish Hatchery Rd., Ste. 204, Madison, WI 53713-3120; (608) 274-0123; fax: (608) 274-0696; asfpm@floods.org or see <http://www.floods.org>.
- November 1–4, 2003:** ANNUAL MEETING OF THE INTERNATIONAL ASSOCIATION OF EMERGENCY MANAGERS, Orlando, Florida. Contact IAEM, 111 Park Place, Falls Church, VA 22046; (703) 538-1795; fax: (703) 241-5603; info@iaem.com or see <http://www.iaem.com>.
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Publications, Software, AV & the Web

“Flood Enhancement through Flood Control,” describes the findings of a study and analysis by two professors of earth science at Washington University in St. Louis. They report that increased flood levels and frequencies on the Missouri and Mississippi rivers over the past century cannot be blamed on global warming or climate change. Instead, the authors say the worsening floods are due to the placement of wing dams. In the reaches of both rivers in Missouri there are literally thousands of wing dams, jetties of rock placed nearly perpendicular along river banks. Most were built in the 1930s and 1940s by the U.S. Army Corps of Engineers. During low flow, the wing dams keep the channel deeper for barge traffic, and increase water velocity in the center for a stable, self-scouring channel. But during flood conditions, the structures slow water velocity and constrict the channel, forcing flood levels to rise. The authors reached their conclusion after comparing flood stage levels of the middle Mississippi River (from the confluence of the Missouri River down to the Ohio) and the lower Missouri River, both heavily lined with wing dams, to the Meramec River in Missouri, which is one of the few free-flowing rivers in the United States, and the Ohio River at Cincinnati, also free of wing dams. Both the Meramec and Ohio rivers show a horizontal line on graphs the researchers drew up; the Mississippi and Missouri rivers, laden with wing dams, show distinctly rising lines

throughout the past century. This comparison clarifies the consequences of different engineering practices over time. Robert Criss and Everett Shock. *Journal of Geology*, October 2001, pp. 875-878. To subscribe to the journal, order a back issue, or purchase a single copy of the article, see <http://www.journals.uchicago.edu/cgi-bin/vendor?journal=JG> or contact the University of Chicago Press at (773) 753-3347.

Living with Earth's Extremes—Lessons from PPP2000 is a product of the Public Private Partnership 2000 (PPP2000), which was established in 1997 to find ways for government and private-sector organizations to work together to reduce vulnerability to natural hazards. Over the next three years, 14 one-day “forums” were held to discuss different aspect of natural disaster reduction. The ASFPM was a co-sponsor of Forum 8, held in 1998. This report summarizes what was learned via all the forums. Among the observations it makes are that hazards are not a problem to be solved but rather an essential part of how the earth functions. With regard to floods, PPP2000 proposed three main avenues by which public and private entities could cooperate: developing a strategy to communicate flood risk effectively; establishing appropriate incentives for prevention and mitigation; and better defining the roles of federal, state, and local government. Timothy A. Cohn, Kathleen K. Gohn, and William H. Hooke, editors. Report to the Office of Science and Technology Policy, Subcommittee on Natural Disaster Reduction. 2001. 119 pp. Available free from the Institute for Business and Home Safety, 1408 North Westshore Blvd., Suite 208, Tampa, FL 33607; (813) 286-9960; fax: (813) 286-9960; <http://www.ibhs.org>. Also available online at <http://www.usgs.gov/ppp2000/> and at <http://www.ibhs.org/>.

The National Aeronautics and Space Administration (NASA) has added near-real-time satellite images of floods, severe storms, and other hazards to the Earth Observatory section of its website. An icon highlights each current hazard on a world map; selecting one brings up the fast-loading image and a capsule explanation of the potentially hazardous event. It is managed by the Earth Observing System (EOS) Project Science Office and funded by NASA's Earth Science Enterprise, a long-term research program investigating how human-induced and natural changes affect the global environment. The website is at <http://earthobservatory.nasa.gov/NaturalHazards/>.

Protecting and Restoring America's Watersheds: Status, Trends, and Initiatives in Watershed Management is an interagency report published by the Environmental Protection Agency's Office of Water. It describes recently implemented watershed-related projects, programs, and partnerships. Successful experiences are detailed in case studies and programs to move toward watershed-based management are evaluated. The report focuses on areas that many believe still need improvement—maintaining partnerships, government coordination, watershed monitoring and assessment, and evaluation of project success. 2001. EPA publication 840-R-00-001. Available free by calling the National Environmental Service Center for Environmental Publications at (800) 490-9198. It is also posted on the Office of Water's website at <http://www.epa.gov/ow/new.html>.

Evaluation of CRS Credited Activities during Hurricane Floyd is now available in downloadable pdf format on the website of the Federal Emergency Management Agency. The report, first issued in late 2000, reviews the performance of several communities' National Flood Insurance Program Community Rating System activities during and after the flooding caused by Hurricane Floyd in North Carolina in 1999. Among the conclusions were that residents of CRS communities had a higher awareness of the flood hazard, more insurance coverage, and had taken more flood protection precautions. In addition, the practice of elevating above the base flood elevation paid off: the higher the building the less damage. The report also includes dollar figures for estimates of money saved and damage avoided for various communities in certain situations. Access it at <http://fema.gov/nfip/pfloydrrpt.pdf>.

“Mitigation Resources for Success” was produced as a compact disk by the Federal Emergency Management to supply information to anyone concerned with building a safer future. Users will find a range of publications, technical fact sheets, photographs, case studies, and contact and background information on federal and state mitigation programs. Several sections of the CD cover flood insurance and flood mitigation. To get a copy, call the FEMA Publications Warehouse at (800) 480-2520 and ask for FEMA publication 372.

The National Flood Insurance Program Actuarial Rate Review for 2001 is now available in downloadable format on the Federal Emergency Management Agency's website. The document is full of interesting insurance data and background information on flood insurance rate-setting. Access it at <http://www.nfipbsa-csc.com/wyobull/w-02004.pdf>.

A new database-driven server has enabled the Institute for Business and Home Safety (IBHS) to upgrade its website and expand the range of information it offers about ways to mitigate the impacts of floods and other hazards on people and property. Visit them again at <http://www.ibhs.org>.



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For address changes and member services, contact the ASFPM Executive Office at the address in the box.

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