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STATE FLOODPLAIN  
MANAGERS**

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losses and protecting  
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# NEWS & VIEWS

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## **ASFPM and Chapters Continue Taking Action**

ASFPM and ASFPM Chapters continue to weigh in and engage with communities and leaders in the Hurricane Sandy recovery. From offering workshops, to guiding the media, to sharing critical perspectives and experience through testimony – the job has only just begun for those of us committed to rebuilding stronger, wiser, and more resilient against the next inevitable event.

See more on the [Sandy updates](#) and [actions](#), or go directly to the [ASFPM Hurricane Sandy page](#).

## **Sustainable Solutions: How the Corps of Engineers Used Creativity to Maximize Flood Risk Reduction**

*Monique Farmer, Sr. Public Affairs Specialist, USACE*

A blend of public laws, government regulations and government processes doesn't likely conjure images of engineers engaged in roundtable discussions, drawing pictures on a whiteboard and bouncing creative out-of-the-box thinking strategies or groundbreaking ideas off one another.

But efforts executed by the U.S. Army Corps of Engineers, Omaha District, have proven that perhaps it should. The district achieved groundbreaking results in less than one year working levee repair projects following historic flooding.

[\*Continued on page 8\*](#)

### **Notable Changes to News & Views**

ASFPM newsletter recipients will note that the [News & Views](#) no longer contains either the "Washington Legislative Report" or "Insurance Committee Corner"

To maintain access to these valued columns, [become an ASFPM member today](#). Both the "Washington Legislative Report" and the "Insurance Committee Corner" will continue to be made available in our bimonthly member benefit newsletter, *The Insider*.

Not yet an ASFPM member? [JOIN NOW](#) for access to numerous member benefits!  
Questions? Contact your Member Services Coordinator at [kevin@floods.org](mailto:kevin@floods.org) or 608-828-3000.



## From the Chair

**Sally McConkey, P.E., D.WRE, CFM**

In my opinion the hardest part of serving as Chair of ASFPM is writing this bimonthly letter. It isn't for lack of interesting concepts, changes, challenges, or updates to reflect upon in the world of flood risk management; it is that they are already covered so expertly by the contributors to the [News & Views](#). Within the last year, ASFPM has printed articles covering National Flood Insurance Program (NFIP) reform, integrating building codes and floodplain management ordinances; green infrastructure; flood barrier testing and certification; levees and LAMP and Zone D; Threat and Hazard Identification and Risk Assessment (THIRA) and National Preparedness Grant Program (NPGP); residual risk; dam removal, Preferred Risk Policies (PRP) and actuarial rates, Community Rating System (CRS), national policy issues; an abundance of legislative information in the "Washington Report"; and of course coverage on Sandy and recovery efforts. It is of note that the lead story in the [February 2012 edition of News & Views](#) was "Post Irene Recovery and Mitigation."

ASFPM members also receive *The Insider* in the months alternating with [News & Views](#) release. *The Insider* is likewise rich in useful and practical information, including the "Floodplain Manager's Notebook"; coverage of conferences; "Washington Legislative Report"; news from the states and more. The last edition included an article about undergraduate and graduate programs in floodplain management. ASFPM has added to our standing committees, a committee charged with promoting higher education curricula and degrees. ASFPM Chapters are further treated to the [Chapter Newsletter](#). Last, but not least, the [ASFPM website](#) contains a variety of resources and is frequently updated with [Hot Topics](#), publications, and ASFPM actions and news.

So, my report is that ASFPM is an incredible resource for professionals in flood risk management. There are too many contributors to mention here, but hats off to Katrien Werner, our ASFPM editor, who pulls it all together. If there is a particular topic you would like to see covered, or you have interest in contributing a feature article, please contact [Katrien](#). ASFPM is always looking for contributing authors and welcomes your feedback.

The ASFPM Board will meet in Hartford, CN, during the first week of March. This is a key meeting for starting to formulate next year's goals and objectives. Now is the time to contact your [ASFPM Board representative](#) with your thoughts on key issues for the upcoming year.

In closing, there are still thousands of people displaced from their homes and work on the East Coast, it is our responsibility as professionals to voice the reality that the only way to reduce the consequences of flood disasters is through mitigation and building resilient communities.

Sincerely,  
Sally

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## From the Director's Desk

**Chad Berginnis, CFM**  
**Executive Director, ASFPM**



### Doing The Right Thing Can Be Hard!

In this month's column, I wanted to acknowledge all of the hard work floodplain managers across the nation do every day, but especially those that are working in the area of post-disaster flood recovery. Whether at the federal, state, local government level, private sector, non-profit, or academia, there are a lot of you whose everyday work is making us just a little more resilient to the hazard of flooding. Over the years I have both experienced and heard harrowing tales of public meetings gone awry, local floodplain administrators enforcing rebuilding standards in the face of angry property owners, elected officials doing right by their communities regardless of the political consequences, and state or federal officials pushing the envelope by helping develop innovative solutions to complex issues.

So, in a perfect world, what *should* happen (from an optimistic floodplain manager's point of view)?

1. Event happens
2. There are good maps and information, the community has or is provided sufficient resources and time to go out, substantial damage inspections are conducted, and it is determined which structures need modifications and which do not.
3. It is possible to digest what happened and make good decisions on how the community should rebuild - including, in some cases, having the community enact a temporary moratorium to provide time for updating or completing a redevelopment plan.
4. Owners of substantially damaged structures would come in wanting to know how to rebuild to be safer and reduce their future damages and flood insurance premiums - promptly and thoroughly completing the necessary permits and providing necessary plans.
5. Floodplain manager would have adequate staffing capacity to handle surge in inspection work and permits.
6. Informational public meetings would be held with lively but constructive exchange between the citizens of the community and local leaders on redevelopment decisions.
7. The entire floodplain management toolbox would be used and the path of redevelopment chosen by the community would use several tools (including offering property owners with the option to not rebuild in the most hazardous areas).
8. Government assistance programs would be quick and efficient.
9. The community would rebuild in such a way that the next event would cause little or no damage.

The reality of what happens, however, is usually very different. Other than the hazardous event occurring, one generally only sees a smattering of the other items follow – and that is if one is fortunate!

That being said, Sandy was followed by some good things happening and I would like to highlight a few:

- FEMA completed and published Advisory Base Flood Elevations (ABFE) maps in record time.
- In partnership with the state, NOAA Coastal Services Center is developing mapping for all of the New York areas receiving ABFEs that will depict the extent of the floodplain based on the ABFEs plus various scenarios of Sea Level Rise (SLR) for 2050 and 2100. Also, NOAA has completed a [SLR viewer](#) for New Jersey to help decision makers factor SLR into redevelopment decisions.
- The USACE has developed an [online tool](#) that allows users to input an ABFE and get elevations that include SLR based on different scenarios/timeframes.
- Governor Christie of New Jersey issued an emergency order requiring the use of ABFE maps for rebuilding in all affected communities.
- Governor Cuomo of New York is proposing to spend as much as \$400 million to purchase homes wrecked by Hurricane Sandy, have them demolished, and then preserve the flood-prone land permanently as open space coastline, where flood damage will never happen again.
- The Borough of Monmouth Beach, New Jersey, not only adopted the ABFEs, but also 3 foot freeboard and V-Zone standards in Coastal A-Zones.
- There has been excellent media coverage of the event – promoting thoughtful and responsible response and forward action – see the [ASFPM Sandy page](#) to read more.

While there remains much work to be done, these are promising actions to build upon. However, we still have a long way to go and there will be plenty of issues along the way: completing the massive volume of substantial damage determinations, handling the subsequent permit load in an efficient and consistent manner, having qualified contractor capacity in the affected areas to support chosen mitigation options (especially to elevate homes), minimizing fly-by-night outfits, meshing programs like Community Development Block Grant (CDBG) and Hazard Mitigation Grant Program (HMGP) and having those programs work in a compatible manner with state mitigation priorities, and the speedy delivery of mitigation programs to affected property owners and communities. Those of us who have spent some time in this profession know that after every event there exists a critical and short-lived window of opportunity for communities, citizens, and leaders to make the right choices and do the right thing.

When I was a county official in the late 1990s, working with a community that had just been devastated by a flood, the Mayor gave me a copy of what has become my favorite quote:

“If I were to try to read, much less answer, all the attacks made on me, this shop might as well be closed for any other business. I do the very best I know how – the very best I can; and I mean to keep doing so until the end. If the end brings me out all right, what is said against me won’t amount to anything. If the end brings me out wrong, ten angels swearing I was right would make no difference.”

Wise words by Abraham Lincoln, this quote still hangs in my office today.

There were days when we felt like we were at wits’ end and wanted to give up. But we persevered and ultimately implemented several mitigation actions that have proven their value several times since. With that in mind, keep doing what you are doing and keep the faith!

Your partner in loss reduction,

*Chad*



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# Policy Matters!

**Larry Larson, P.E., CFM**  
**Director Emeritus – Senior Policy Advisor, ASFPM**

## **The Evolving Definitions of *Resilience* and *Sustainability***

Is community resilience different from community sustainability? Both *resilience* and *sustainability* are relatively new terms within the vocabulary of our profession – and it is with increasing frequency that I encounter discussions in which some see resilience as short term and sustainability as long term. Many terms continue to evolve as our knowledge and understanding grows, just as flood control is now evolving to flood risk management. As such, resilience and sustainability have come to describe how we want communities to either recover from a disaster, or how we want them to grow. Resilience and sustainability are the next steps beyond just hazard mitigation. It has taken decades to shift the approach from limiting assistance and funding for community recovery, where communities were being rebuilt to the same standards as before the disaster event, to suggesting and offering some funding assistance if these communities will mitigate when rebuilding. Now we are close to being able to mandate mitigation as a condition of receiving federal taxpayer money for rebuilding buildings and infrastructure.

Recognizing the importance of not only including mitigation in recovery, but of also ensuring that mitigation will take into account any changing future conditions, moves any such mitigation action into the realm of resilience or sustainability. In this regard, a clear example of flood hazard mitigation is to not only rebuild to the flood elevations from the currently adopted flood maps, but to also use the Advisory Base Flood Elevations (ABFEs) that the Federal Emergency Management Agency (FEMA) calculated after Katrina and Sandy. It is commonly agreed that use of ABFEs will make the structure and community more resilient. That said, there are those who will argue that unless the full range of hazards, environmental, social, and economic conditions of the community are taken into account, the community may still not be sustainable. Is rebuilding, even to ABFEs, a truly sustainable option in a known high hazard area that is repeatedly flooded and subject to increased flood elevations in the future? Probably not.

Let's examine another flood hazard mitigation measure—a levee. Building a levee to protect a highly urbanized area will likely make that community more resilient. But if the levee fails or is breached, causing catastrophic damage in the community, can the community afford to rebuild it? Even if the levee has not yet failed, can the community afford the annual costs of operation and maintenance (O&M), necessary to keeping the levee up to its design level of protection? In other words, is this approach a sustainable option? I recall a California community that rejected a U.S. Army Corps of Engineers levee, because it was clear to this community that they could not afford the annual O&M costs. I am also reminded of Soldiers Grove, Wisconsin. The people of Soldiers Grove rejected the levee option because, in their words, the levee would only, “change us from a dying run-down community subject to flooding into a dying run-down community not subject to flooding.” That is to say, the community had many, many challenges to remaining a viable community – and flooding was only one of them. In their situation, the levee was not a sustainable solution; they needed a more holistic solution and approach, with the potential to address more of their challenges, as opposed to a solution that would only address one of them. Napa, California, reached a similar conclusion and worked to not only incorporate a set-back levee, but to simultaneously address their challenges as opportunity for developing a more viable and sustainable community. If you are not familiar with the Napa success story, [please click here](#).

Some of you may be thinking, “Don't tell me we need to do more. Many of us are still trying to get basic hazard mitigation included in recovery.” However, let me suggest that it is our profession which is most suited for leading the charge to establishing communities that are not just more resilient, but also more sustainable. While it is true that progress often comes one small step at a time - we, as leaders, must acknowledge the opportunity inherent to our role as long-term planners and strategic thinkers, such that we can maintain awareness of what lies ahead and more effectively guide the process and progress over the long-term.

## The National Flood Insurance Program: Remaining Issues for Congress

*William Nechamen, CFM, ASFPM Vice Chair*

For five years prior to July 2012, Congress could not agree on a long-term reauthorization of the National Flood Insurance Program (NFIP). Between 2008 and 2012, there were a total of sixteen temporary extensions of the NFIP, and four actual lapses. One reason for Congress's indecision is the large debt that the program has carried since the 2005 hurricane season. A five year extension was passed in July 2012 as the [Biggert-Waters Flood Insurance Reform Act](#). The Act attempts to put the NFIP on a more secure financial footing by requiring flood insurance policies to move towards actuarial rates. However, Hurricane Sandy followed, quickly becoming the second most costly flood disaster in the history of the NFIP. The NFIP debt limit was forced to be raised to over \$30 billion.

The Congressional Research Service recently released "[The National Flood Insurance Program: Status and Remaining Issues for Congress](#)" by Rawle O. King, Specialist in Financial Economics and Risk Assessment. The paper reviews the background of the NFIP, its financial status, and remaining issues for Congressional oversight. The report establishes four issues of contention:

- How can FEMA balance the program's fiscal soundness with affordability?
- How can the nation reduce the escalating cost of flooding and need for taxpayer-financed disaster assistance?
- How can incentives be created for businesses and property owners to purchase flood insurance and for local governments to make appropriate land use decisions?
- Can expand the private sector role in flood insurance be expanded?

With costly floods increasing, the NFIP continues to be undercapitalized. With only \$3.5 billion in annual premiums, it is clear that Biggert-Waters has not fixed the program and that the current financial model for the NFIP is not working. The National Science and Technology Council has reported that floods that would historically occur once every 20 years are now projected to happen every four to six years. In the 44 year history of the NFIP, five of the six most expensive loss years have been since 2000. Lloyds of London estimates that a one foot rise in sea level along the Gulf and Atlantic coastlines would increase flood losses by 80% by 2030. From a financial perspective, the NFIP was never capitalized by Congress at its inception, the program has never operated under traditional insurance definitions of requiring statutory reserves, and the gradual elimination of subsidized pre-FIRM policies has not occurred.

Future Congressional action is required to address the nation's increasing flood risk due to more frequent extreme weather and climatic events and population growth in flood-prone areas. Congress must consider both the direct effects and indirect social and economic costs of flood policy. However, simply increasing rates to true actuarial rates raises a serious affordability issue which could have the unintended consequence of decreasing participation in the program and increasing taxpayer disaster costs. Congress must address the feasibility of vouchers or other assistance for low-income policy holders. The author also suggests an investigation into program privatization, and other innovative flood insurance approaches, such as long-term or community based flood insurance, or multi-peril homeowners policies. Action is still needed to address the program debt, and to increase the accuracy of flood hazard maps and risk assessment methods.

## The Conundrum of Unsteady Flow Analyses in a Regulatory Setting

*Sally McConkey P.E. D.WRE, CFM, Glenn Heistand P.E., CFM, Greg Byard, P.E. CFM  
Illinois State Water Survey, Prairie Research Institute, University of Illinois*

Rain pours down, accumulates in streams and rivers, flow builds to a peak, and in events described as flooding, water spills and flows out of the stream and river banks; later as the flood wave passes, the water returns to the river, leaving behind damage, debris, and expense. Floods are a dynamic event, varying over space and time along the courses of streams and rivers. Engineers conducting flood studies attempt to predict the extent of inundation that has a particular likelihood of occurrence, e.g. the 1% annual chance flood. Flooding is a natural event, but can be convoluted and complicated to model. In decades past, engineers have had a limited set of tools to simulate flood events.

The establishment of the National Flood Insurance Program (NFIP) in 1968 spurred a huge effort to identify land areas that have a 1% annual chance of being inundated in any given year. Engineers tasked with identifying those areas use hydrologic and hydraulic computer models to simulate the 1% annual chance flood event. Certain assumptions about flood flows have had to be simplified, in part because of computational limitations of computer programs and computing capacity. The adopted industry standard is to use one-dimensional steady-state hydraulic models to simulate the depth and breadth of the water at the time of the peak discharge. This practice has served its purpose well and guidelines and regulatory rules have been developed around these modeling assumptions with the intent of addressing the limitations of the simulations. The models used to identify the 1% annual chance flood boundary when adopted become “the” regulatory model for a stream or river and the basis for future updates or revisions.

Advances in computer programs and computational power make the broader use of unsteady-state hydraulic models possible. Engineers hail this development as it takes the analyses of flood flow several steps closer to its true dynamic nature. In particular, stormwater management and planning benefit from a better simulation of flow conditions. The importance of storage preservation can be better assessed for land use planning. However, there are new challenges when unsteady-state models are used in a regulatory environment. Aside from questions about quality assurance and parameter limits, a number of practical complications arise.

Unsteady modeling is far more complex than the workhorse steady-state modeling environment. While growing, the number of engineers with experience to wisely use these models is still limited. Until more practitioners gain experience, there may be a limited pool of engineers who could prepare updates to unsteady-state model adopted as “the” regulatory model. Another aspect of modeling in an unsteady-state mode is that modifications to the channel geometry or flow at any location can propagate changes to flow conditions both upstream and downstream. Thus it is expected that a much longer reach of the river, upstream and downstream of a proposed modification, must be studied and revisions to regulatory maps and models will be more expansive and expensive. Routine culvert and bridge replacements or stream relocations will require greater effort to incorporate into the regulatory models.

In the good ol’ days of steady-state modeling, hydrologic models were used to compute peak flows. Peak flows at key locations were hard-wired into the hydraulic models; steady-state flow is based on the simplified assumption that discharge does not change with time. The flow routing capabilities of unsteady-state models now permit a more integrated environment, where hydrologic models provide not a single flow, but the full flood hydrograph as input; discharge is routed in the hydraulic model with changing storage and discharge in time and space. The concept of the “regulatory approved” peak discharge at set locations cannot quite be stretched to this dynamic simulation. In fact, peak discharges in unsteady models don’t always correspond to maximum flood elevations at every cross section.

Floodways may represent the most perplexing aspect of using unsteady state modeling. Floodways are a mathematical construct, developed as a floodplain management tool to establish the portion of the floodplain that, if filled or otherwise obstructed, would increase the depth of flooding more than a predefined maximum amount, and therefore should not be encroached upon. The concept is that a limited amount of fill or encroachment on the edges of the floodplain (floodway fringe) can be tolerated, if it does not increase the depth or extent of flooding in other areas beyond a set limit. The Federal Emergency Management Agency (FEMA) set a national minimum standard that the 1% annual chance

flood elevation shall not be increased more than one foot due to floodway fringe encroachments. Many states use a stricter (higher) standard such as zero, 0.1 or 0.5 feet as the limit. In practice, this translates to establishing encroachment limits at each cross section in the river model such that the rise is less than or equal to the target maximum rise. Equal conveyance reduction on both sides of the channel is used to distribute the restrictions evenly amongst property owners. In the unsteady state modeling environment, the change in storage due to encroachments changes the discharge, which isn't a factor that is accounted for in the floodway definition. Because the current floodway definition is linked exclusively to a target rise, it is conceivable that the artificially modeled encroachments in an unsteady model could be placed to maximize encroachment at one location, with the subsequent loss of storage translated as higher discharges at other locations, and limiting the allowable encroachment at other locations. Unlike steady-state models, unsteady models offer potentially infinite combinations of lateral encroachment placements that would meet the single rule of elevation rise. The unsteady-state mode adds another dimension to the floodway calculation and a longitudinal equal encroachment target needs to be considered.

Unsteady-state models provide an enhanced simulation of flooding dynamics. Unsteady-state modeling is more demanding and may not be the best approach in all situations. But in cases where there is considerable floodplain storage or other time dependent complexities, this approach can provide a better understanding of the flood dynamic. Unsteady-state modeling brings into sharper focus the interactions of hydrology and hydraulics and the ripple effect of development in floodplains. In the regulatory arena this is a period of transition which can be accomplished with careful forethought and planning. Training opportunities for unsteady-state modeling are certainly in order for practicing engineers. Institutions preparing engineers have the opportunity to demonstrate the relevance of the sometimes dreaded partial differential equation solutions. State and federal agencies with the responsibility of floodplain management need to embrace these advances and help shepherd the evolution of guidelines and rules which are quickly becoming outdated.

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## **How USACE used creativity to maximize flood risk reduction..... [continued from page 1](#)**

The Missouri River Flood of 2011 ravaged communities from Fort Peck, Mont. to St. Louis, Mo. during the summer of 2011. Two critical levee systems protecting communities, agricultural land and critical infrastructure breached, allowing the Mighty Missouri River to rush through in a torrent. The primary threats were to major interstate access, thousands of acres of agricultural land, and the town of Hamburg, Iowa. The town was in jeopardy after a critical breach on Levee L-575 while Corps engineers worked with the mayor and emergency management officials to construct a temporary levee to hold back floodwaters. Another critical breach occurred on Levee L-550 just north of Highway 136 in Atchison County, Mo. In the end, five breaches occurred on the Missouri River Federal levee system.

Prior to the end of the flood event, the previous Northwestern Division Commander Gen. John McMahon tasked the Omaha District's Chief of Flood Risk and Floodplain Management, Randy Behm (and a team of engineers, real estate specialists, cost estimators, biologists, geographic information specialists and economists) with reviewing the floodplain system from Omaha south to Rulo, Neb. to determine whether there were constriction points. If so, he challenged the team to investigate whether levees could be set back at those points to reduce water surface elevations.

The team developed a Conceptual Levee Setback report to identify alternative floodplain management opportunities, including levee setbacks. Once the Conceptual Levee Setback report was developed, the concepts were taken to the field by the PL 84-99 manager and the Omaha Systems Restoration Team for execution in areas where levee damage was irreparable and the levees needed to be completely reconstructed. PL 84-99 is the law that supports emergency flood assistance and funding for the rehabilitation of levee systems (that are in the program) and have sustained damages a result of a flood event.

The Omaha District Systems Restoration Team was developed to carry out rehabilitation work following the flood. Early on, conceptual levee setback team members conducted analyses to come up with viable options for floodplain restoration. Through thorough research of historic documents, the identification of trends and the incorporation of state-of-the-art computer modeling, the team identified alternative actions that could achieve a projected annual cost savings of \$14 million, lower water surface elevations, reduced operation and maintenance costs and a less frequent need for emergency evacuation and cleanup costs in the future.

Additionally, the original conceptual setbacks proposed by the team aimed to achieve conservation benefits of up to 6,470 acres by reconnecting river hydrology and providing fish and wildlife with access to larger habitat areas.

Those familiar with Public Law 84-99, the law that provides strict guidelines for the management of funds associated with the repair of infrastructure following a disaster, may be scratching their heads asking “How could the team have accomplished all of this while simultaneously ensuring compliance with PL 84-99?”

Here’s how:

### **1. They recognized the historic trends, potential for better results**

Behm, a 27-year Corps veteran has been around long enough to learn a thing or two about flood events, their potential impact to river hydrology both in the short and long-term and ways in which other parts of the country have taken advantage of flood risk management techniques. During the 2011 flood, McMahon was looking for ways to minimize flood impacts in the future—examples of smart floodplain management strategies and tactics. He and the team offered their insight.

The Missouri River has a well-documented history of vacillation between wet and dry period extremes, requiring savvy engineering and proactive management techniques. Upon detailed analysis of flood events, patterns from previous floods became more salient, Behm said.

With support from the commanding general, the team also revisited recommendations from the 1994 Galloway Report, a report issued by the Interagency Floodplain Management Review Committee following the 1993 Missouri River Flood. The report recommended specific policy and programmatic changes to how floodplain management should be addressed. Among other points, it envisioned reduced flood damages, minimized upheaval and emotional impact to families and communities, provided recommendations for mitigating economic impacts, and aimed to diminish the toll on communities and taxpayers in the aftermath of flooding on the Missouri River.

The team thoroughly reviewed it as well as internal documented accounts of the floods of 1952, 1956, 1962, 1984, 1993 and 2010.

One of the first noticeable patterns they identified by the team were significant flood damages that seemed to occur in cycles along identical reaches of levees when those structures were loaded with above average discharges.

“We noticed traditional problem areas where we had experienced breaches in the past,” Behm said. “There were certain places in the river that consistently experienced high stages and high velocities due to constrictions in downstream areas of the channel.”

About 13 locations between Omaha, Neb. and Council Bluffs, Iowa and Rulo, Neb. indicated significant channel constriction below 3,000 feet of conveyance width. Constrictions in conveyance areas result in increased river stages, greater velocities and more frequent levee loading during flooding, which can lead to levee failure, overtopping or breaching.

Those constricted areas behave like a dam, backing up water and limiting channel velocity and conveyance, Behm said.

Further analysis of levee system authorization documents turned up guidelines in the Flood Control Act of 1944 which indicated that levees between Iowa and Nebraska should be constructed to withstand discharges of about 250,000 cubic feet per second at Omaha and 295,000 cubic feet per second at Nebraska City with a minimum conveyance width of 3,000 feet from levee to levee or from levee to bluff.

One way to achieve those specifications was through the consideration of repairing the levee segments in a manner that set them back farther from the river than they were originally constructed. The basic idea of a levee setback is to relocate a segment of it from its current alignment closer to the banks of the river to a location farther away from the banks. A setback alignment would take advantage of better geotechnical conditions, opening up habitat potential, and an increase in flood conveyance.

## **2. They worked with, educated levee sponsors about the process**

An integral aspect of achieving success with the new approach to restoring the floodplain entailed educating levee sponsors and other stakeholders about taking advantage of floodplain management tactics. In the past many of these techniques had not been seriously considered for sake of expedience, however, the extensive damage caused by 2011 flood left everyone wanting to find a better way to reduce flood risk, said John Remus, Chief of the Hydrologic Engineering Branch.

Education was key, said Kim Thomas, Chief of the Omaha District Emergency Operations Center and PL 84-99 Program Manager. Getting sponsors to view flood events in a broader, more long-term view helped the team gain acceptance of the idea.

“It took sitting down and talking face-to-face with the sponsors and key stakeholders to explain to them what we were trying to achieve by constructing a setback levee versus repairing the previous levee in place,” said Thomas. “The levee setbacks under consideration were localized realignments of previously existing levees using a risk-based levee design.”

In the case of Levees L-575, the two major setbacks accomplished did result in the complete reconstruction of sections of those levees due to the amount of damages sustained, said Thomas. But, careful analysis of the costs and long-term benefits associated with reconstruction were taken into account as part of the decision-making process. PL 84-99 states that levees shall be repaired to their pre-flood conditions. In this case, due to the tremendous amount of foundation damage, the geotechnical designers’ best and only engineering solution was to relocate the levee to better foundations, thus resulting in a setback, Thomas said.

Cost estimates compared an inline repair to the cost of a setback. The estimates indicated it was cheaper to set back the levee.

Once he saw the numbers and proposals, Leo Ettleman, President of Responsible River Management and agricultural land owner behind L-575, said he quickly realized it was not only more cost-prohibitive to repair the levees in place than to set them back, it was the only ostensible engineering solution considering the amount of damage sustained.

Working through the PL 84-99 process with the Corps was a learning experience for everyone involved, Ettleman added.

“All of these were massive projects that none of us had ever been through,” he said. “This was a 500-year event and a tremendous amount of damage to personal and business property occurred. Watching everybody keep their emotions in check and get through the process was certainly encouraging.”

“The levee sponsors really made this a priority,” said Thomas. “They were obligated to take on quite a load to make these repairs in a timely manner. That meant relocating utilities, county roads and other major tasks. They worked diligently to get the work done.”

## **3. They capitalized on the economic savings**

The old saying, “Show me the money” rang true once the team began its development of the Project Information Report, the document that is required of all PL 84-99 rehabilitation activities. It served as the basis for justifying the construction of setback levees to the Corps headquarters for approval. In multiple instances, side-by-side comparisons of cost estimates juxtaposing the cost of in-place repairs with setback alternatives indicated cost-benefit ratios that consistently favored setback alternatives.

These highly damaged reaches typically had deep scour holes near the levee toe and extensive seepage areas. “In some cases, setting the levees back from the scour and seepage areas was the best engineering solution,” said Bryan Flere, levee safety program manager.

The levee sponsors, along with Corps technical experts, leveraged relationships with the Corps’ Missouri River Recovery Program, counties, levee stakeholders, State of Iowa Department of Natural Resources and the Natural Resources Conservation Service to cut the cost of borrow construction materials including sand deposits and dirt from conservation land owned by the Corps of Engineers and managed in partnership with the state and NRCS to construct the setback levee units.

“The major savings in using the Corps’ recovery lands as a borrow source was that in most cases the transportation distances were much shorter to the construction sites. In total, more than 3 million cubic yards were used with savings of an estimated \$2 per yard,” said Brad Thompson.

#### **4. They used technology to their advantage**

The team made use of state-of-the-art industry standard river engineering software HEC-RAS, which stands for Hydrologic Engineering Center-River Analysis System.

When the Corps was in the process of developing its National Levee Database, the Omaha District Levee Safety Program conducted an inventory and analysis of the district’s current levee system, gathering critical data about the original construction design of levees, historical maintenance information and the status of levee conditions. In 2009, the Flood Risk and Floodplain Management Section also completed a floodway model for FEMA to support the agency’s update of their floodplain mapping information.

The team input information from both data sets into HEC-RAS and included Geospatial Information System overlays to analyze potential areas of concern along the river, said Behm.

Tony Krause, hydraulic engineer, said the combination of data sets and GIS information in the system made it easy to identify historic damage points and locations where levees appeared to be located too close to the river.

#### **5. They remembered to be good environmental stewards**

Secondary benefits of the setback levees were the additional acres of land that were reconnected to the historic floodplain and wetlands created through borrow activities. The Corps has been working to mitigate habitats lost due to the development of the Bank Stabilization and Navigation Project, which was constructed from the 1940s through the 1970s and resulted in negative impacts to the ecosystem.

The conceptual setback levee projects identified 6,470 acres of land that could potentially be reconnected to the river. Actual on-the-ground repairs resulted in approximately 2,000 acres of reconnected flood plain and created an anticipated 500 acres of wetlands associated with borrow activities—land that will help influence shallow water habitat benefits for the threatened and endangered pallid sturgeon and other fish and wildlife. A focus on fish and wildlife is one of the Corps’ eight congressionally authorized purposes for regulating operations within the Missouri River basin.

“It was good working with the [Corps] because they were willing to incorporate innovative ideas that were going to benefit wildlife at the same time as improving the levee projects along the river,” said Carl Priebe, wildlife biologist with the Iowa Department of Natural Resources. Iowa DNR manages Corps property that has been acquired for mitigation for the Missouri River Recovery Program.

Priebe said he looks forward to lower river stages and more fish and wildlife habitat during future flood events.

“Before there were just grass and trees in many of these places,” said Priebe. As the river interacts with this newly connected land and wetlands, Priebe said he expects to see more diversification of various species of fish, mammals and birds taking advantage of the new landscape.

"It's public access land so anyone can come enjoy it and its going to be land that has a wealth of opportunity for outdoor pursuits whether it be hiking, bird-watching, hunting or photography. There are opportunities for all of those things now on that public land where there haven't been before."

Two large-scale levee setbacks, several miles each, were completed as a result of the team's efforts. Several smaller scale setback projects were also constructed. Total levee rehabilitation work totaled \$160 million. Critical repair work was completed prior to the start of the 2012 runoff season, which began March 1, 2012. The majority of the remainder of repair work was completed in the fall of 2012 with a few final projects set for completion this spring.

"Our contractor, construction personnel and engineers executed this work in record time with no accidents and that's commendable," said Thomas. "All of our think tank construction and engineering folks were also right there providing great quality assurance and engineering oversight that helped move this rehab work along as efficiently as possible, within budget and ahead of schedule."

Other communities that have faced flooding issues in the past have also paid attention to the team's work. The State of California recently requested a copy of the final Conceptual Levee report.

The Conceptual Levee Setback team was recognized in 2012 as the Northwestern Division Innovative Project Delivery Team of the Year. Additionally, Behm received a national award, Flood Risk Manager of the Year.

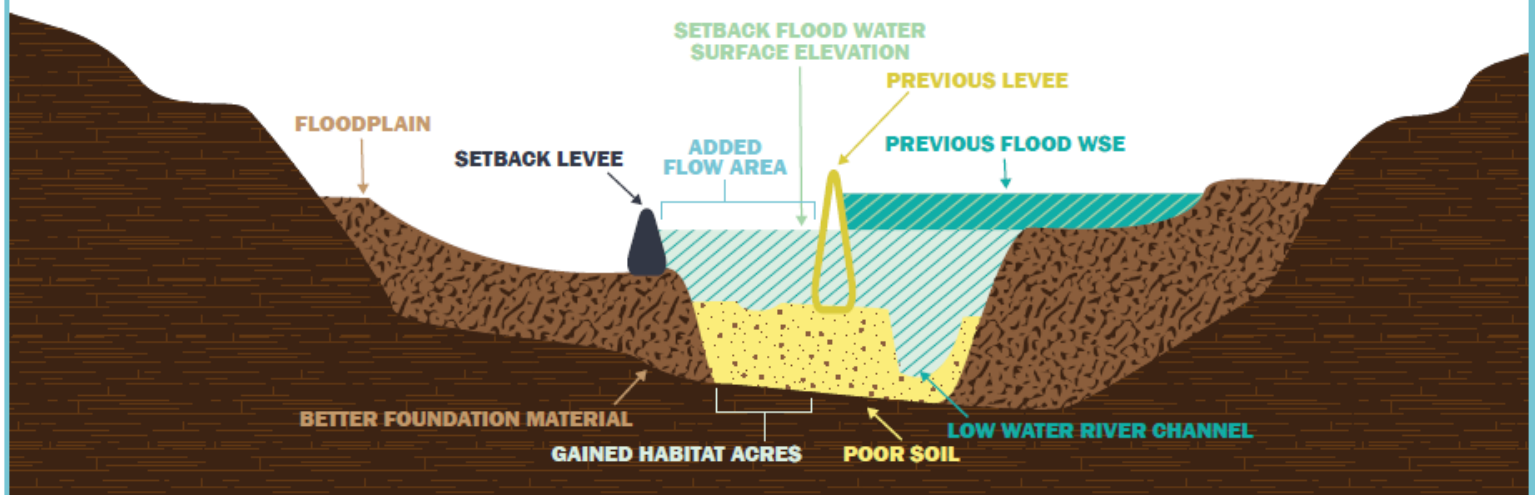
The Omaha District Systems Restoration team won the Corps' Outstanding Unit/Team Award for Specialized Services and Construction Contracting.

## MISSOURI RIVER LEVEE SETBACK BENEFITS

- Levees set back on higher ground **use less materials**.
- **Reduced flood water surface elevation.**
- **Increased level of protection** behind adjacent and opposing levees.
- **Reduced costs for operations and maintenance.**
- **Reduced costs for repair, replacement and relocation.**
- **Less frequent need for emergency operations** and flood-related activities.
- Increased potential for **additional acres of fish and wildlife habitat.**



**US Army Corps  
of Engineers®**  
Omaha District



## Why Become an ASFPM Member?

ASFPM Individual Members enjoy these benefits:

- The opportunity to provide input to national leaders on issues important to you.
- Subscription to our monthly newsletters delivered via e-mail: News & Views in even months and Insider in odd months. You may receive printed copies for an additional fee.
- Voting rights in elections and all issues presented to members for vote.
- Discounts on ASFPM conferences, workshops, and publications.
- Substantial discount on Certification (CFM ®) exam and renewal fees.
- Access to the National Directory of Floodplain Managers Membership website where you may renew your membership, update personal and address information, view membership history and register for conferences.
- Access to the National Directory of Floodplain Managers containing contact information for those involved in floodplain management nationally and abroad; key contact persons in the major federal agencies dealing with flood hazard management issues; ASFPM goals, achievements and awards highlighting excellence in the field; and much more.

[Click here to learn more and join today!](#) Further questions may be directed to your member services coordinator, Kevin Currie at [memberhelp@floods.org](mailto:memberhelp@floods.org) or 608-828-3000.

## February 19-20 – ASFPM Foundation 4<sup>th</sup> Gilbert F. White Flood Policy Forum

The 4<sup>th</sup> triennial assembly of the [ASFPM Foundation Gilbert F. White National Flood Policy Forum](#) was held at George Mason University's Arlington VA Campus. This Forum addressed "Human Adjustments in Coasts – Adaptive Management in Response to Changing Hazards, Risks, and Ecosystems". One hundred invited experts – the brightest minds in flood policy, law, governance, engineering practice, biological sciences, transecting disciplines, sectors, landscapes, and US regions – worked together in developing recommendations on approaches the nation can use to adjust human occupancies and management of the coasts. More information will be available soon on the [ASFPM Foundation website](#).



Photo courtesy of John McShane- Environmental Policy Specialist, US EPA

Pictured left to right: Margaret Davidson- Acting Director, Office of Ocean & Coastal Resource MGT., NOAA; Nick Hardiman- Coastal Policy Advisor, Environment Agency, UK; Denise Reed- Chief Scientist, Water Institute of the Gulf; Larry Larson- Director Emeritus and Senior Policy Advisor, ASFPM



# ASFPM Foundation

## Nick Winter Memorial Scholarship Fund Award Competition for Undergraduate and Graduate Students

[Remembering Nick Winter](#)

**Deadline: April 20, 2013**

The Association of State Floodplain Managers (ASFPM) and the ASFPM Foundation, will grant a \$2,000 scholarship for the 2013-2014 academic year to a full-time college junior or senior currently enrolled in an undergraduate program related to floodplain/ stormwater management, or a student enrolled in a graduate program in a field related to floodplain/ stormwater management.

Eligible applicants include current undergraduates in a four-year college program, applicants to a graduate program, or current graduate students. Applicants must be enrolled in an accredited university or college in the United States and be a citizen of the United States. Eligible fields of discipline include civil or environmental engineering, planning, emergency management, environmental sciences or other disciplines with a demonstrable link to floodplain and stormwater management.

Applicants must complete a Scholarship Application Form. 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. In order to be considered, the Scholarship Review Committee must receive the Scholarship Application Form and a separate reference letter by April 20, 2013.

Scholarship funds will be paid directly to the recipient's college or university.

[2012-2013 Nick Winter Memorial Scholarship Application](#)

Applications and reference letter should be sent electronically to [diane@floods.org](mailto:diane@floods.org). For further questions, please contact Diane Brown at 608-828-6324.

### Past Nick Winter Memorial Scholarship Recipients

2012-2013 H. E. "Gene" Longenecker, III – University of Colorado at Boulder



2011-2012 Chelsea Lane-Miller – Vermont Law School

2010-2011 Steven Mee – University of Southern Mississippi

2009-2010 Colin C. Smalley – Creighton University

2008-2009 Tim Fulks – Tri-State University - Ohio

2007-2008 Aaron Wallace, CFM – Western Kentucky Univ.

2006-2007 Sam Riley Medlock, CFM – Vermont Law School

2005-2006 Margaret Weirich – Wellesley College

2004-2005 Joshua Briggs – University of New Hampshire

## Apply Now for the Mary Fran Myers Scholarship

Deadline: April 1, 2013

The Mary Fran Myers Scholarship Committee is now accepting applications. Recipients will receive financial support allowing them to attend the [2013 Natural Hazards Research and Applications Workshop](#) in Broomfield, Colorado, July 13-16. Recipients may also stay through July 17 to attend either the International Research Committee on Disasters or the Natural Hazard Mitigation Association add-on events for researchers and practitioners, respectively. Scholarships can cover part or all of transportation, meals, and registration costs.

The Mary Fran Myers Scholarship is awarded annually to at least one potential Workshop participant. Recipients are recognized at the Workshop and may be asked to serve as panelists, where they can highlight their research or practical experiences with hazards and disasters.

As the longtime co-director of the Natural Hazards Center, Myers recognized that many of the people and organizations that could benefit from and contribute to the Workshop—including local practitioners, students, and international professionals—were among those least likely to afford it. The scholarship was established in 2003 to fulfill Myers' request that qualified and talented individuals receive support to attend.

This year, hazards practitioners, students, and researchers with a strong commitment to disaster management and mitigation and who reside outside North America or the Caribbean are eligible to enter. Eligibility is based on current place of residence, not citizenship.

Applicants from North America and the Caribbean will be eligible for the scholarship in 2014. Previous attendees of the Natural Hazards Workshop are *not* eligible for the 2013 Mary Fran Myers Scholarship. Preference is given to those who can demonstrate financial need.

For more information on past scholarship winners and how to apply, please visit the [Mary Fran Myers Scholarship page](#) at the [Natural Hazards Center website](#). Applications must be received by April 1.



### Call for Nominations for 2013 ASFPM Awards

Join the stars who have received national recognition over the years for doing the right thing and doing it well. Here are the award categories for excellence in floodplain management for which we invite your nomination of worthy programs, projects or persons. See [ASFPM AWARDS](#) for more detail on these categories.

- Media Award
- LRJ Local Floodplain Manager of the Year
- Sheaffer Floodproofing Award
- Ivey Certification Award
- Tom Lee State Award
- James Lee Witt Local Award
- Meritorious Achievement Award

Our conference theme for 2013 in Hartford, Connecticut, is “Remembering the Past – Insuring the Future”. Please help us showcase the many successes across the country! Simply go to the ASFPM awards nomination page at [www.floods.org/awards/nomination.asp](http://www.floods.org/awards/nomination.asp) and submit your program, project, or person online. Make sure you get it in by the first week of March. It is highly recommended that you provide applicable letters of support for your nomination. Send those to ASFPM Outreach & Events Manager, Diane Brown, at [diane@floods.org](mailto:diane@floods.org), who can also answer your questions about the process or categories. Winners will be notified in mid-April to allow time to make travel arrangements

## Donations needed for ASFPM Foundation's 2013 Silent Auction!

### ASFPM Foundation Silent Auction

Hartford, CT

Monday, June 10, 3:30 pm ---- Wednesday, June 12, 4:00 pm



The [ASFPM Foundation](#) holds a [Silent Auction](#) each year to raise funds to support their activities and research. They are now accepting donations for their 2013 Annual Silent Auction in Hartford, CT. Please consider making a donation on behalf of your chapter, state, agency or corporation. Donations need to be made now in order to be included in this year's Silent Auction. A list of items already donated for this year can be found on the Foundation website.

#### **How & Where to Donate**

To make a tax-deductible donation to the Silent Auction please email the following information to the Silent Auction Coordinator, Luci Sherwood at [dasherwood@q.com](mailto:dasherwood@q.com):

- Description of Item (and number of each unit donated if applicable)
- Fair Market Value (include any shipping costs)
- Company/Affiliation
- Your phone and email
- Your address
- When and how the item will be available for table placement (shipping ahead, bringing with you, etc.)
- Name/address for acknowledgement letter if applicable

You can either bring your donation with you to the conference or ship it in advance. Contact Luci Sherwood, at [dasherwood@q.com](mailto:dasherwood@q.com), to coordinate.

Information on where to ship your donations (if not bringing them with you to the conference) will be provided at a later date.



## ASFPM 2013 Annual Conference Event Website is Now Live!

SAVE THESE IMPORTANT DATES: June 9 -14, 2013, for ASFPM's 37th Annual National Conference, "Remembering the Past - Insuring the Future", at the Connecticut Convention Center in Hartford, CT.

The conference website, including hotel information, the full conference program, and registration information, is now live! For full conference details, please visit:

[www.asfpmconference.org](http://www.asfpmconference.org)

We will be continually adding new content to this site as events are solidified and details are confirmed, so please check back often!

Thank you! Please let us know if you have any questions and we look forward to seeing you in Hartford this June.

**Association of State Floodplain Managers**  
575 D'Onofrio Dr.  
Madison, Wisconsin 53719  
[608-828-3000](tel:608-828-3000)



View looking west along the New Jersey shore. Storm waves and surge cut across the barrier island at Mantoloking, NJ, eroding a wide beach, destroying houses and roads, and depositing sand onto the island and into the back-bay. Construction crews with heavy machinery are seen clearing sand from roads and pushing sand seaward to build a wider beach and protective berm just days after the storm. The yellow arrow in each image points to the same feature. ([High resolution image](#).)

Science Feature: [Start with Science to Address Vulnerable Coastal Communities](#).

"An increase in the intensity of extreme weather events such as storms like Sandy and Katrina, coupled with sea-level rise and the effects of increased human development along the coasts, could affect the sustainability of many existing coastal communities and natural resources," said Virginia Burkett of the U.S. Geological Survey and co-lead author of the report.

The authors also emphasized that storm surge flooding and sea-level rise pose significant threats to public and private infrastructure that provides energy, sewage treatment, clean water and transportation of people and goods. These factors increase threats to public health, safety, and employment in the coastal zone.

The report's authors noted that the population of the coastal watershed counties of the U.S. and territories, including the Great Lakes, makes up more than 50 percent of the nation's population and contributed more than \$8.3 trillion to the 2011 U.S. economy but depend on healthy coastal landforms, water resources, estuaries and other natural resources to sustain them. Climate changes, combined with human development activities, reduce the ability of coasts to provide numerous benefits, including food, clean water, jobs, recreation and protection of communities against storms.

## USGS-NOAA: Climate Change Impacts to U.S. Coasts Threaten Public Health, Safety, and Economy

**Released January 28, 2013** - According to a new technical report, the effects of climate change will continue to threaten the health and vitality of U.S. coastal communities' social, economic and natural systems.

The report, [Coastal Impacts, Adaptation, and Vulnerabilities: a technical input to the 2013 National Climate Assessment](#), authored by leading scientists and experts, emphasizes the need for increased coordination and planning to ensure U.S. coastal communities are resilient against the effects of climate change.

The recently released report examines and describes climate change impacts on coastal ecosystems and human economies and communities, as well as the kinds of scientific data, planning tools and resources that coastal communities and resource managers need to help them adapt to these changes.

"Sandy showed us that coastal states and communities need effective strategies, tools and resources to conserve, protect, and restore coastal habitats and economies at risk from current environmental stresses and a changing climate," said Margaret A. Davidson of NOAA's Office of Ocean and Coastal Resource Management and co-lead author of the report. "Easing the existing pressures on coastal environments to improve their resiliency is an essential method of coping with the adverse effects of climate change."

A key finding in the report is that all U.S. coasts are highly vulnerable to the effects of climate change such as sea-level rise, erosion, storms and flooding, especially in the more populated low-lying parts of the U.S. coast along the Gulf of Mexico, Mid-Atlantic, northern Alaska, Hawaii, and island territories. Another finding indicated the financial risks associated with both private and public hazard insurance are expected to increase dramatically.

Seventy-nine federal, academic and other scientists, including the lead authors from the NOAA and USGS, authored the report which is being used as a technical input to the third National Climate Assessment — an interagency report produced for Congress once every four years to summarize the science and impacts of climate change on the United States.

Other key findings of the report include:

- Expected public health impacts include a decline in seafood quality, shifts in disease patterns and increases in rates of heat-related morbidity.
- Changes in the location and the time of year when storms form can lead to large changes in where storms land and the impacts of storms. Any sea-level rise is virtually certain to exacerbate storm-surge and flooding related hazards.
- Because of changes in the hydrological cycle due to warming, precipitation events (rain, snow) will likely be heavier. Combined with sea-level rise and storm surge, this will increase flooding severity in some coastal areas, particularly in the Northeast.
- Temperature is primarily driving environmental change in the Alaskan coastal zone. Sea ice and permafrost make northern regions particularly susceptible to temperature change. For example, an increase of two degrees Celsius during the summer could basically transform much of Alaska from frozen to unfrozen, with extensive implications.
- As the physical environment changes, the range of a particular ecosystem will expand, contract or migrate in response. The combined influence of many stresses can cause unexpected ecological changes if species, populations or ecosystems are pushed beyond a tipping point.
- Although adaptation planning activities in the coastal zone are increasing, they generally occur in an ad-hoc manner and are slow to be implemented. Efficiency of adaptation can be improved through more accurate and timely scientific information, tools, and resources, and by integrating adaptation plans into overall land use planning as well as ocean and coastal management.
- An integrated scientific program will reduce uncertainty about the best ways coastal communities can to respond to sea-level rise and other kinds of coastal change. This, in turn, will allow communities to better assess their vulnerability and to identify and implement appropriate adaptation and preparedness options.

This report is available [online](#).

NOAA's mission is to understand and predict changes in the Earth's environment, from the depths of the ocean to the surface of the sun, and to conserve and manage our coastal and marine resources. Join NOAA on [Facebook](#), [Twitter](#) and other [social media channels](#).

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## Climate Change Continued

*Reprinted from CZMA Climate Change and Coastal Hazards E-News Update #30*

### **[CSC Redesigns Digital Coast, Adds Hurricane Sandy Resources](#)**

Prompted by user recommendations, the NOAA Coastal Services Center has redesigned the Digital Coast to make it easier to use. The Digital Coast provides the data, tools, and training most needed by coastal communities. A wide range of resources are available, from lidar data to guidance for local inundation mapping. Recent entries on the site's GeoZone blog provide information about and links to useful geospatial data related to recovery from Hurricane Sandy.

### **[NOS Responds to Hurricane Sandy](#)**

[http://geodesy.noaa.gov/web/news/NGS\\_Responds\\_to\\_Hurricane\\_Sandy.shtml](http://geodesy.noaa.gov/web/news/NGS_Responds_to_Hurricane_Sandy.shtml)

<http://storms.ngs.noaa.gov/storms/sandy/>

"Responding to Hurricane Sandy" (4 pp.) highlights how NOAA's National Ocean Service (NOS) helps coastal communities prepare for and recover from storms like Hurricane Sandy. Among the efforts, the National Geodetic Survey, in coordination with federal, state, and local officials, conducted remote sensing operations. Available within hours of collection, the high-resolution imagery proved useful in search-and-rescue efforts and identification of hazards to navigation, HAZMAT spills, and errant vessels. FEMA used the photos to assess damage to more than 65,000 homes, allowing the agency to speed up the processing of loss claims and to project temporary housing and financial assistance requirements. Going forward, the imagery will help communities in their recovery efforts. Additional imagery documenting coastal change is available from the U.S. Geological Survey at <http://coastal.er.usgs.gov/hurricanes/sandy/>.

### **Experimental Tool Offers Customizable Views of Great Lakes Water Level Data**

Sponsored by the Great Lakes Restoration Initiative, NOAA's Cooperative Institute for Limnology and Ecosystems Research, and NOAA's Great Lakes Environmental Research Laboratory, the Great Lakes Water Level Dashboard offers interactive displays of any combination of historical, current, and projected water levels for the Great Lakes. Researchers plan to expand the dashboard by adding other agency water level forecasts and water budget data such as precipitation, evaporation, and runoff.

### **CO-OPS Reports on Isaac Water Level and Meteorological Data**

A water level and meteorological data report for Hurricane Isaac (48 pp.) is now available from NOAA's Center for Operational Oceanographic Products and Services (CO-OPS). This report documents the elevated water levels, high winds, and reduced barometric pressures recorded at stations along the coast of Puerto Rico and the U.S. Virgin Islands as well as the Gulf Coast from Florida to Louisiana during Hurricane Isaac.

*Reprinted from EPA's State and Local Climate and Energy Program December 6, 2012 Newsletter  
Roundup of Climate Change Adaptation Resources for State and Local Governments*

### **EPA Directories of Adaptation Tools and Resources for Public Officials**

EPA's State and Local Climate and Energy site has a [topic page on impacts and adaptation](#) that includes links to state adaptation plans, guidebooks, programs, and tools. EPA's Climate Change Site includes a list of [adaptation-related tools, guidebooks, clearinghouses, and other resources](#) for public officials. The page includes links to clearinghouses (online directories of adaptation resources), sector-specific tools and resources, region-specific tools and resources, and a series of guidebooks on adaptation-related topics.

### **Preparing for Climate Change: A Guidebook for Local, Regional, and State Governments**

This [guidebook](#), published in 2007 by ICLEI-Local Governments for Sustainability, presents a detailed, easy-to-understand process for climate change preparedness based on familiar resources and tools. ICLEI's website also provides [links to a number of other free adaptation resources](#).

### **Georgetown Climate Center Adaptation Portal**

The nonprofit Georgetown Climate Center has developed a [clearinghouse of information on impacts and adaptation](#) for state and local governments, including news and updates, a directory of resources and tools, and state and local adaptation stories. The Georgetown Climate Center has also developed an [adaptation toolkit for sea-level rise and coastal land use](#).

### **Climate Adaptation Knowledge Exchange (CAKE)**

CAKE, a joint project of Island Press and EcoAdapt, aims to build a shared knowledge base for managing natural systems in the face of rapid climate change. The [CAKE website](#) provides a virtual library, case studies, a directory of people and organizations, and tools.

### **NOAA's Quarterly Climate Impacts and Outlook Reports for State and Local Governments**

The National Oceanic and Atmospheric Administration (NOAA) and regional partners around the United States have teamed up to issue a series of quarterly Climate Impacts and Outlook reports aimed at assisting policymakers as they prepare for drought and other extreme weather events. The reports highlight trends in temperature, precipitation, and climate in four regions of the country (Central Region, Southern Great Plains, the Eastern Region, and the Western Region). Maps of areas of significant fire potential and drought may help state and local officials in their planning efforts.

### **Coastal Climate Adaptation Community of Practice for State and Local Governments**

NOAA's [Coastal Climate Adaptation site](#) is a community of practice for state and local officials in coastal areas of the United States. The site includes a searchable online database of adaptation action plans, policies, assessments, case studies, communication and outreach materials, and other resources posted by members, as well as basic climate change information.

### **NOAA and EPA Report: Achieving Hazard-Resilient Coastal & Waterfront Smart Growth**

Coauthored by EPA and NOAA, this [Coastal and Waterfront Smart Growth Hazard Mitigation Roundtable Report](#) presents ideas on research, tools, services, and approaches communities can use to integrate smart growth and hazard mitigation strategies on the coast. This report is part of the work conducted under a [joint agreement](#) between EPA and NOAA to [help coastal communities](#) become more environmentally, economically, and socially sustainable.

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# Publications, Video, the Web

## First 2013 Edition of the Silver Jackets Newsletter, the *BUZZ*, is Now Available

[This newsletter](#), as well as past issues, can be found on the Silver Jackets website: [www.nfrmp.us/state](http://www.nfrmp.us/state). Some of the highlights in this issue include:

- \* *The Oklahoma Silver Jackets team develops grassroots linkages*
- \* *NJ SJ and the newly re-structured National Disaster Framework post-Sandy*
- \* *Nevada SJ makes a commitment*
- \* *Agencies collaborate on FEMA's know-your-line outreach program*
- \* *Community-based Hydrologic Warning System prevents damages*
- \* *OH and IN SJ teams outreach using the Great Flood of 1913*
- \* *American Rivers reaches out as a potential partner*
- \* *FloodSmart demonstrates a cost-of-flooding tool*
- \* *MOU with USGS, NOAA, and USACE gets results*
- \* *Call for Awards Nominations coming soon*

## Roy Wright selected as Deputy Associate Administrator for Mitigation

January 18, 2013 – David L. Miller, Associate Administrator, Federal Insurance and Mitigation Administration (FIMA) has announced the selection of Roy Wright as the Deputy Associate Administrator for Mitigation, effective January 28, 2013. As Roy begins his new position, he intends to focus on the following:

- \* *Pursuing and advancing resilience everywhere: with our people, communities, and the Nation. This is mitigation writ large: helping communities create a safer tomorrow;*
- \* *Building on our contributions to other FEMA programs, bringing risk analytics and long-term vulnerability management expertise to the table; and*
- \* *Advancing the implementation of the reforms to the National Flood Insurance Program passed by Congress last summer.*

## CRS Coordinator's Manual: Next Manual, Next Website

Work continues on finalizing the 2013 CRS Coordinator's Manual, which will be an update of the April 2012 draft that communities have been able to access through the [temporary "Manual update" website](#) since last spring. The draft is undergoing review by the Office of Management and Budget pursuant to the Paperwork Reduction Act. It is hoped that clearance will be reached in February. When the Coordinator's Manual is final, and an implementation date is known, all CRS communities will be notified, and provided with information for accessing the final version. Remember that, at their next cycle verification visit after the 2013 Coordinator's Manual goes into effect, CRS communities will be scored under the new Coordinator's Manual. As with all verification visits, the ISO/CRS Specialists will work with communities to identify additional activities eligible for CRS credit that the community might not have previously received. A wealth of CRS-related material is being assembled for a more comprehensive web page, to replace [www.CRS2012.org](http://www.CRS2012.org). It is planned that the page will migrate to the FEMA.gov site in the future. In addition, a special section of the [FloodSmart website](#) will be devoted to CRS information and updates of interest to a wider audience.

## U.S. Forest Service Releases Report on Water Resources Vulnerabilities to Climate Change

The U.S. Forest Service recently released a report detailing innovative approaches to assessing the relative vulnerability of water resources to climate change on national forests. The report, "Assessing the Vulnerability of Watersheds to Climate Change: Results of National Forest Watershed Vulnerability Pilot Assessments" was sponsored by the U.S. Forest Service Stream Systems Technology Center. The report summarizes findings of a collaborative effort between land managers and researchers in which at least one national forest from each of the Forest Service's nine regions participated. Eleven National Forests from throughout the United States conducted assessments of potential hydrologic change due to ongoing and expected rapid climate warming. Each National Forest identified water resources important in their area, assessed climate change exposure and watershed sensitivity, and evaluated the relative vulnerabilities of watersheds and water resources to climate change. The report provides an overview of core assessment components and highlights similarities and differences of the eleven pilot assessments. Important concepts that emerged during the pilot assessments are emphasized. To view the report online, visit: <http://www.fs.fed.us/ccrc/>.

### **American Rivers Releases Guide to Integrate Green Infrastructure Into Stormwater Permits**

Like many sources of water pollution, stormwater generally falls under the prohibitions and requirements created by the federal Clean Water Act. For over a dozen years, these requirements have found their way into permits for municipal storm sewer systems. Unfortunately, these permits have not done enough to stem the flow of stormwater pollutants into our urban waters. Truly protecting, and restoring, our waters will require a different approach to stormwater permits, one that emphasizes building homes, businesses, and communities in ways that reduce the amount of stormwater running off of parking lots, streets and rooftops. This guide is intended to be a resource for community and watershed advocates that provides clear examples of new stormwater permits that encourage or require “low impact development” or “green infrastructure.” These permits represent an emerging new generation of regulatory approaches and reflect the emerging expertise of water advocacy organizations, stormwater professionals and permitting agencies. Our goal is to provide information about new trends in stormwater permitting and examples of permits that demonstrate leadership toward standards that will build green infrastructure and compliance with water quality standards. With this tool, we hope to inform and inspire continued progress toward stormwater permitting and management that protects our rivers and other shared waters, invigorates healthy communities, and provides cost-effective solutions for stormwater managers. The guide is organized as a matrix that combines model permit language along with excerpts from comment letters that have helped to drive this evolution. The concerns raised by watershed advocates, and the support they often provide to state permit agencies, frequently have been instrumental in shaping better stormwater permits. We hope that providing examples of the expertise shown by both communities that we can inform a broader movement toward better control of urban stormwater. Download the [Green Infrastructure Permit Guide](#). [Read more here](#).

### **Risk Communications Guidebook for Local Officials**

Each year the United States sustains natural and manmade disasters that cost hundreds of lives and average billions of dollars in losses. These disasters are caused by floods, wildfires, winter storms, tornadoes, landslides, earthquakes, hurricanes, and other natural events, as well as intentional and unintentional manmade hazard events. These circumstances require the attention of government at all levels, the private sector, and individuals, to take steps to decrease hazard risks. FEMA understands that government at all levels is being asked to do more without additional manpower or funding resources. In an effort to assist community officials in building a support base for hazard mitigation, sustainability and resiliency discussions within their communities, FEMA Region 6 developed the [Risk Communication Guidebook and Toolkit](#) to assist local officials in their natural hazard education and risk communication efforts. The Guidebook identifies opportunities for a continual discussion of natural hazard risk and is broken into sections, which mimic the flood hazard update process in order to illustrate a consistent and increasing effort towards communication of flood risk. The information is presented as follows:

- *Overview – A description and purpose of each project phase, the need for outreach, and typical activities performed by FEMA, and identification of actions that may be taken by local government entities.*
- *Phase Activities – Information is provided about FEMA’s procedures and standing education and outreach efforts available to communities.*
- *Outreach Activities – Information and outreach activities performed by FEMA, as well as suggested activities that could be performed by the local government*
- *Suggested Outreach Materials – Templates and sample materials can be customized by local government entities. Generic language is included, but other elements such as timelines, contact information, logos, etc., are intended to be added by each county or community as appropriate.*

The intent of this Guidebook is that it will be maintained electronically and adapted based on feedback from communities. Other outreach materials, resources and links are available for local officials on the Resources and Related Links tab of [www.RiskMAP6.com](http://www.RiskMAP6.com). Contact Diane Howe at [diane.howe@fema.dhs.gov](mailto:diane.howe@fema.dhs.gov) for more information on the [Guidebook](#).

### **Crumbling Pipes and Underground Waste: A Glimpse at Our Ailing Sewer System – PBS Video**

As clean water regulations become tougher and sewer systems and water treatment plants become outdated, cities are struggling to stay compliant and safe. Science correspondent Miles O'Brien goes underground to discover the many ways America's sewer systems could be revamped to conserve water and save money. Check out this great video on sewer infrastructure problems [here](#).

## **The Great Flood of 1913 – 100 Years Later – Website and Flood Awareness Presentations and Materials**

Silver Jackets has launched a website about the Great Flood on what marks the 100<sup>th</sup> year anniversary of the 1913 March event. Visit the website [here](#). Included with the various flood awareness materials is a short video of the flood's aftermath, entitled "Lessons from the 1913 Flood" This video is worth watching and can be reached by following [this link](#) and clicking "Lessons from the 1913 Flood" beneath the Presentations subsection.

## **2 Great Lakes Hit Lowest Water Level on Record: Lakes Huron and Michigan are at Record Low Levels**

Associated Press, 02/06/2013 – Traverse City, Mich. Two of the Great Lakes have hit their lowest water levels ever recorded, the U.S. Army Corps of Engineers said Tuesday, capping more than a decade of below-normal rain and snowfall and higher temperatures that boost evaporation. Measurements taken last month show Lake Huron and Lake Michigan have reached their lowest ebb since record keeping began in 1918, and the lakes could set additional records over the next few months, the corps said. The lakes were 29 inches below their long-term average and had declined 17 inches since January 2012. The other Great Lakes - Superior, Erie and Ontario - were also well below average. [Read more here](#).

## **2013 ASFPM Conference Social Media – Twitter and Facebook**

As we gear up for our 37<sup>th</sup> annual gathering, the ASFPM Conference Twitter account is once again up and running to relay conference updates and information as it becomes available. Follow us to stay connected! <https://twitter.com/ASFPMConf> and [#ASFPM2013](#)

Not on Twitter but a follower of ASFPM on Facebook? See the [ASFPM 37<sup>th</sup> Annual National Conference Event](#) page for updates and to connect with other attendees. More information to come.

## **New Elevation Certificate and Floodproofing Certificate Ready**

The revised Elevation Certificate and Floodproofing Certificate used by communities participating in the National Flood Insurance Program have been approved by the Office of Management and Budget, with a new expiration date of July 31, 2015.

- The Elevation Certificate is available as a fillable WORD file and as a fillable pdf file [here](#).
- The Floodproofing Certificate is available as a pdf and can be downloaded [here](#).

Communities may continue to use the older forms (originally set to expire March 31, 2012) until July 31, 2013. After that, only the new forms will be accepted. If you have any questions, please contact your FEMA Regional Office or ISO/CRS Specialist.

## **Call for Nominations: Community Rating System (CRS) Award for Excellence**

**Deadline: March 8, 2013**

The National Flood Insurance Program (NFIP) has established an award to recognize individuals who have actively advanced the vision of the NFIP and the Community Rating System (CRS). The CRS is a program within the NFIP that provides guidelines for participating communities that want to continually improve their community's safety and resilience to flooding and other natural disasters. While all CRS participating communities are taking steps that improve their flood safety and resilience, certain communities stand out. As in all serious endeavors, outstanding results do not just happen. They are due to the efforts of specific individuals, who through their knowledge, commitment and passion, have made their communities safer. In an effort to recognize such individuals the NFIP is seeking [nominations](#) for the 2013 CRS Award for Excellence.

[Read more here](#).

## EC Made EZ is now online! Overview of the NFIP Elevation Certificate



[VIEW HERE AT ANYTIME](#)

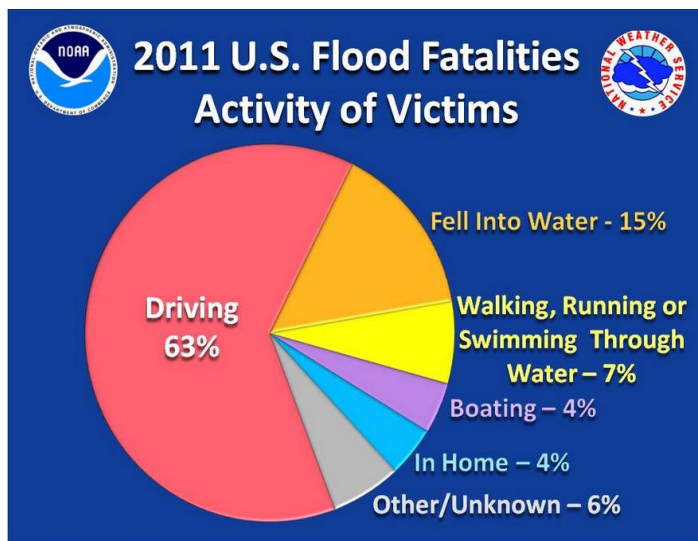
**Available 24/7 with no registration needed. Video segments provide valuable information for Agents, Lenders, Adjusters, Surveyors and Community Officials**

EC Made EZ, one of our most popular classroom presentations, provides an overview of the NFIP Elevation Certificate -its purpose, where to find one and where to find a professional to complete an EC. It addresses all aspects of the NFIP Elevation Certificate including BFE, LFE, Pre-FIRM, Post-FIRM, calculating the elevation difference, and building types. Each of the 10 drawings of buildings included in the EC is discussed in detail. This information is essential for anyone who encounters the NFIP Elevation Certificate, including: Agents, Lenders, Adjusters, Surveyors or Community Officials. This segmented course is provided as an informational job aid to anyone wanting to learn about the different aspects of the NFIP Elevation Certificate. There are no credits associated with completing this course. There is no certificate provided for completion.

## Flood Safety Awareness Week

**March 18-22, 2013**

NOAA's National Weather Service has designated March 18-22 as [Flood Safety Awareness Week](#), with the goals of informing the public about NWS forecast and warning services and flood safety information, heightening public awareness of the risks associated with all types of floods, and empowering citizens to take actions necessary to protect their lives and property. NOAA's NWS will highlight many important topics during Flood Safety Awareness Week, including [Turn Around Don't Drown®](#), the [Advanced Hydrologic Prediction Service](#), and partner initiatives to improve flood forecasting and promote flood safety. Visit the [NWS flood safety website](#) for flood-related educational materials, videos, brochures, and news articles.



## Hurricane Sandy Page Updates and ASFPM Action

Asbury Park Press, 02/22/2013 –  
[Berginnis: Use maps in rebuilding Shore](#)

Forbes, 02/07/2013 -  
[Rethinking Our Place In A Post-Hurricane Sandy World](#)

Star-Ledger, 02/06/2013 -  
[100 days after Sandy, a crippled Jersey Shore stutters back to life](#)

New York Times, 02/05/2013 -  
[U.S. to Release First Installment of \\$51 Billion in Hurricane Sandy Aid](#)

NJ DEP, 02/05/2013 -  
[MEDIA ADVISORY: FAQs on Post-Sandy Flood Elevation Standards](#)

New York Times, 02/03/2013 -  
[Cuomo Seeking Home Buyouts in Flood Zones](#)

*To access previously posted articles, please visit ASFPM's [Hurricane Sandy Page](#)*

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### ASFPM and ASFPM Chapter Activities

02/14/2013 - [RIFMA and ASFPM Post-Sandy Workshop: Coastal No Adverse Impact \(NAI\) Approach to Recovery and Legal Issues for Rhode Island Local Officials to be held March 15, 2013](#)

02/11/2013 - [Rebuilding After Sandy - Testimony by Mark Mauriello for Senate Budget and Appropriations Committee Hearing](#)

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### Resources for Property Owners Updated

[Delaware Homeowners Handbook to Prepare for Natural Hazards](#)  
[Flood Elevation FAQs: New Jersey's Emergency Flood Elevation Rule](#)

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### Resources for Local Officials Added to ASFPM Hurricane Sandy Page

ASFPM has added links to the following resources for local officials.

1. [Addressing your Community's Flood Problems: A Guide for Elected Officials \(ASFPM\)](#)
2. [Coastal No Adverse Impact Handbook \(ASFPM\)](#)
3. [Digital Coast Website \(NOAA\)](#)
4. [A Guide for Higher Standards in Floodplain Management \(ASFPM Regulations Committee\)](#)
5. [Substantial Damage Estimator \(FEMA\)](#)
6. [Substantial Improvement/ Substantial Damage Desk Reference \(FEMA\)](#)
7. [Benefit-Cost Analysis Tool \(FEMA\) - Version 4.8 Download](#)
8. Planning for Post-Disaster Recovery and Reconstruction (FEMA 421) - [Chapters 3-5](#)

*[Click here for additional background on these publications.](#)*

## **President Obama signed into law the Sandy Recovery Improvement Act of 2013 (P.L.113-2)(SRIA)**

### Intergovernmental Affairs Advisory

On January 29, 2013, President Obama signed into law the Sandy Recovery Improvement Act of 2013 (P.L. 113-2) (SRIA). The law authorizes several significant changes to the way the Federal Emergency Management Agency (FEMA) may deliver disaster assistance under a variety of programs. FEMA is currently developing specific implementation procedures for each new authority and will provide further guidance through a combination of rulemaking and the development of policy or other guidance documents.

Please see the [fact sheet](#), detailing the program changes authorized by the Sandy Recovery Improvement Act. If you have any further questions, please contact FEMA's Intergovernmental Affairs Division at (202) 646-3444 or at [FEMA-IGA@fema.dhs.gov](mailto:FEMA-IGA@fema.dhs.gov).

## **MEDIA ADVISORY - FAQs on Post-Sandy Flood Elevation Standards posted**

Feb. 5, 2013 - New Jersey Department of Environmental Protection

As New Jersey begins to rebuild from Hurricane Sandy, there is a critical need for clear and accurate information that will help the public and local officials make good decisions about reconstructing damaged structures. On Jan. 24, the state adopted emergency amendments to New Jersey Flood Hazard Area Control Act rules. The amendments set minimum elevation standards for reconstruction of structures in flood zones.

The Department of Environmental Protection and Department of Community Affairs have developed a list of Frequently Asked Questions to help local officials and the public better understand the benefits of elevating, guidelines explaining who the rule affects, and tips for getting started. It is our hope that journalists will take a few minutes to review the FAQs and consider using them as a basis for stories.

The FAQs may be found under Featured Topics on the DEP's home page or by clicking:

[www.state.nj.us/dep/special/hurricane-sandy/docs/abefs-faq-20130204.pdf](http://www.state.nj.us/dep/special/hurricane-sandy/docs/abefs-faq-20130204.pdf)

The Governor's Office news release announcing the emergency rule is available at:

[www.nj.gov/dep/newsrel/2013/13\\_0006.htm](http://www.nj.gov/dep/newsrel/2013/13_0006.htm)

The rule may be accessed through the press release or by clicking:

<http://www.nj.gov/dep/docs/20130124flood-hazard-emergency-rule.pdf>

The DEP and DCA are eager to assist you in any way, including setting up interviews with experts who can answer any detailed questions you may have. DEP's expertise is focused on the rule itself and the elevation standards, which are based on the Federal Emergency Management Agency's new Advisory Base Flood Elevation (ABFE) maps. DCA can provide expertise on construction codes and standards.

If you have questions or would like to arrange an interview, please Lawrence Hajna in the DEP press office at (609) 984-1795 or DCA Public Information Director Lisa Ryan at (609) 292-6550. Thank you for your consideration.

## **Rebuilding After Sandy – Testimony for Senate Budget and Appropriations Committee Hearing**

February 11, 2013 – New Jersey Association for Floodplain Management's ([NJAFM](#)), Mark Mauriello, submits [Testimony for Senate Budget and Appropriations Committee Hearing](#). Mark's perspective on these issues is grounded by education and training as a geologist; a thirty year career at New Jersey Department of Environmental Protection (NJDEP) working on land use and coastal zone management; 25 years of work with the Association of State Floodplain Managers; and, as a lifetime resident of the Jersey shore. Read more for excellent coverage of both the broader principles critical to Sandy Recovery, as well as examples more specific to New Jersey.

## **Use Maps in Rebuilding Shore - Flood elevation standards yield financial, safety benefits**

February 22, 2013 – Asbury Park Press

Chad Berginnis, ASFPM Executive Director, notes that even in the midst of tragedy, there is an opportunity to rebuild safer, stronger and in a more resilient way. One such tool for achieving this is the use of Advisory Base Flood Elevation (ABFE) maps. With his recent Emergency Rule action, Gov. Chris Christie ensures New Jersey's long-term future, even as it means painful choices in the short term. [Click here](#) for more on this issue and the benefits of the ABFE maps.

### Handbook Helps Delaware Homeowners Prepare for Hazard Events

The "[Delaware Homeowners Handbook to Prepare for Natural Hazards](#)" was created to help homeowners reduce risks to people and property from natural hazard events. It dispels myths about natural disaster preparation; details how hurricanes, northeasters, floods, and tornadoes have affected Delaware in the past; and explains how residents can protect themselves and their families with emergency supplies, evacuation kits, and reliable communication channels. Information about creating wind-, flood- and rain-resistant homes is provided along with tips about electrical and power issues.

The handbook was a collaborative effort by the Delaware Sea Grant College Program, with the Delaware Department of Natural Resources and Environmental Control (DNREC) providing funding and technical assistance, along with the Delaware Emergency Management Agency, to support Delaware Sea Grant in developing this resource.

### FEMA Blog – Recognize Key Contributors Making a Positive Impact After Sandy

February 25, 2013 – Deputy Administrator, Rich Serino, is seeking to recognize individuals or groups that have made an impact after Sandy. Nominations are due **March 6, 2013**. [More information available here](#).

#### Rhode Island Flood Mitigation Association and ASFPM Post-Sandy Workshop

#### Community Resiliency After Sandy: A Coastal No Adverse Impact Approach Application of No Adverse Impact in the Coastal Zone

March 15, 2013 8:30 AM – 5:00 PM

The Association of State Floodplain Managers (ASFPM) has created a full day workshop designed to provide an approach and tools intended to increase rebuilding resiliency after Sandy. The event is designed for community officials and local elected leaders but all are welcome.

**Registration closes on March 8<sup>th</sup>!**

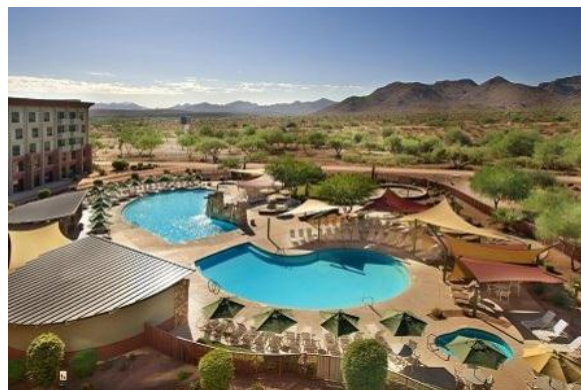
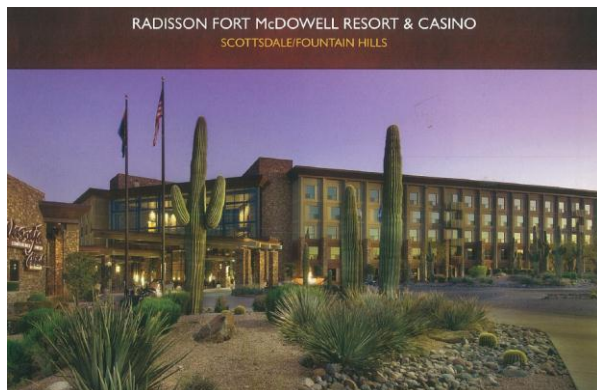
The event has been approved for 6 CECs for CFMS. Credits will also be offered for AICPs.



[Workshop Agenda Available Here](#)



# CALL FOR ABSTRACTS TECHNICAL PRESENTATIONS, WORKSHOPS AND POSTERS ASFPM Arid Regions Conference 2013



**October 15-18, 2013, Fort McDowell Resort, Scottsdale, AZ**

## **We invite you to present at the 2013 ASFPM Arid Regions Conference!**

Knowing that droughts typically end with floods, flooding in arid regions can create unique challenges for floodplain managers. This biennial Conference focuses on topics and challenges that are relevant to arid regions floodplain management. Topics that will benefit floodplain managers in arid regions include, but are not limited to, a broad range of technical, legal and policy topics. Suggested topics are listed below. Other relevant topics may be considered upon review by the Conference Technical Committee.

**Deadline for Abstract submission: March 15, 2013**

Registration will begin on June 14, 2013.

### **Suggested Relevant Topics:**

- Regulatory Issues in the Arid Regions Environment
- Policies and Programs
- Water Quality in Arid Regions
- Floodplain Hazards Associated with Irrigation Facilities
- Legal Issues in Floodplain Management
- Ethics in Floodplain Management
- Alluvial Fan Flood Risk Analysis and Technical Guidance
- Closed Basin Lakes
- Lateral Bank Migration
- Dam Safety
- Wildfire Impacts, Recovery and Hazard Mapping
- Sediment and Debris Management
- Arid Regions Hydrologic Methods
- Flood Warning and Forecasting
- Emergency Management
- Climate Change Impacts on Extreme Events
- Levees and Flood Risk Management
- Stream Restoration/Revegetation
- Other Arid Regions Topics

Please prepare abstracts using the following format:

- Title
- 1 – 2 paragraphs describing the subject of the presentation, workshop or training class and the expected take away message
- Author name(s) and contact information
- Brief biography
- Email your abstract to [mark.forest@hdrinc.com](mailto:mark.forest@hdrinc.com)

**CONFERENCE WEB SITE:** [www.azfma.org](http://www.azfma.org)

Conference information to be updated periodically, keep checking back! Registration will open in June.

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# Grant and Project Opportunities

## [2013 Conservation Innovation Grant](#)

### **United States Department of Agriculture - Natural Resources Conservation Service (NRCS)**

**Deadline: March 6, 2013**

NRCS provides [funding opportunities](#) for agriculturalists and others through various programs. Conservation Innovation Grants (CIG) is a voluntary program intended to stimulate the development and adoption of innovative conservation approaches and technologies while leveraging Federal investment in environmental enhancement and protection, in conjunction with agricultural production. Under CIG, Environmental Quality Incentives Program funds are used to award competitive grants to non-Federal governmental or nongovernmental organizations, Tribes, or individuals. CIG enables NRCS to work with other public and private entities to accelerate technology transfer and adoption of promising technologies and approaches to address some of the Nation's most pressing natural resource concerns. CIG will benefit agricultural producers by providing more options for environmental enhancement and compliance with Federal, State, and local regulations. NRCS administers CIG. More information is available [here and here](#).

## [Ecological Health Assessment for Reclamation Managed Reservoirs](#)

**Deadline: March 13, 2013**

The proposed research, developing and applying an ecological health assessment (EHA) for reservoirs, will play an important role in identifying a balance between water management, habitat requirements for fishes and environmental health. This research is also matched with a priority area of the Science and Technology Program emphasizing climate impacts because of the potential to recognize fluctuation of hydrologic and thermal regimes that could be due to climate change.

## [2013 National Geological and Geophysical Data Preservation Program](#)

### **United States Geological Survey (USGS)**

**Deadline: March 21, 2013**

The National Geological and Geophysical Data Preservation Program was authorized by Section 351 of the Energy Policy Act of 2005. Objectives of the Program are to: 1. Archive geologic, geophysical, and engineering data, maps, well logs, and samples; 2. Provide a national catalog of such archival material; and 3. Provide technical and financial assistance related to the archival material. For details of the Implementation Plan for the National Geological and Geophysical Data Preservation Program visit: <http://datapreservation.usgs.gov/>. Eligible Applicants are state governments.

## [2013-2014 Memorial Undergraduate Scholarship](#)

### **Association of State Dam Safety Officials (ASDSO)**

**Deadline: March 31, 2013**

ASDSO's Scholarship Committee is seeking applications for the 2013-2014 ASDSO Memorial Senior Undergraduate Scholarship. Undergraduate students planning to graduate in May/December 2014 will be eligible. Applicants must be US citizens having a cumulative grade point average of 2.5 for the first three years of college and recommended by their academic advisor. The basis for selection will generally follow these guidelines: Academic Scholarship, Financial Need, Work Experience/Activities, Essay. This will be the 22<sup>nd</sup> year of the ASDSO Scholarship Program, which awards up to \$10,000 to US citizens planning careers related to dam design, construction, or operation. A [fillable-form application](#) is posted on the ASDSO website, under "Information for Students/Faculty." [Read more.](#)

## [NOAA Sea Grant Community Climate Adaptation Initiative 2013](#)

### **NOAA Sea Grant**

**Deadline: April 19, 2013**

NOAA Sea Grant expects to make available up to \$1,000,000 (pending Congressional appropriation) for a national competition to fund climate adaptation efforts for FY 2013-2014 as part of an overall plan to enhance climate adaptation in coastal communities. This Federal Funding Opportunity includes information on how to apply for this funding opportunity and criteria for climate adaptation projects requesting a total of up to \$100,000 in federal funds. Matching funds are required. Climate adaptation projects are expected to be conducted in partnership with local community governments, state and Federal agencies. Projects selected in this competition will be awarded and funded in FY 2013-2014 and should be completed by January 31, 2015.

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# Calendar

## **FEMA's Emergency Management Institute (EMI) 2013 Continuing Education Opportunities**

There are seats available for floodplain management courses at EMI that have been pre-approved for Continuing Education Credits (CECs) for CFMs. EMI courses are offered at the Emmitsburg, MD campus and are **FREE** for local and state government employees. FEMA reimburses travel expenses and provides housing for state and local government employees attending EMI courses. Attendees or their employers pay for the campus meal ticket (about \$100 per week). You can find the EMI Course Schedule and application materials on the [EMI website](#). Advanced Floodplain Management courses may be taken in any order.



E194 **Advanced Floodplain Management Concepts** Aug 26-29, 2013

E282 **Advanced Floodplain Management Concepts II** March 25-28, 2013

E284 **Advanced Floodplain Management Concepts III** Jul 8-11, 2013

## **Society of Wetland Scientists Conference June 2-6, 2013**

**Deadline: March 8, 2013**

[Call for Papers](#) The 2013 Society of Wetland Scientist International conference will be held in Duluth, Minnesota. Join world leading wetland scientists, researchers and managers to explore the many benefits of wetlands and their value to society. Build connections, exchange ideas and learn the latest research for successful wetland management. Nearly 300 experts in wetland science and management will share innovative research trends and developments, while the four-day expo will showcase the tools you need to ensure success. Join a field trip to explore local wetlands, pack your business cards and get ready to network!

## **Arid Regions Triennial Conference 2013**

**Deadline: March 14, 2013**

[Call for Abstracts](#) Conference will be held on October 15-18, 2013, in Scottsdale, Arizona. Suggested topics are listed [here](#). Other relevant topics may be considered upon review by the Conference Technical Committee. Additional conference information will be updated at [www.azfma.org](http://www.azfma.org).

## **National Flood Determination Association – 2013 Conference**

Mark your calendar for the [National Flood Determination](#)'s 16<sup>th</sup> Annual Conference **March 24-26, 2013** in Scottsdale, Arizona. More information coming soon!

## **River Rally 2013**

River Rally 2013 will be held in St. Louis, Missouri, **May 17-20, 2013**, with a special focus on environmental justice and human health issues (related to our water resources). They expect 400 clean water advocates from across the country, and River Rally provides an excellent opportunity to share your experience with a broad audience. [Call for proposal](#) deadline is October 18, 2012. For information, [click here](#).

## **DHS, FEMA and U.S. Northern Command: Building Resilience through Public-Private Partnerships**

[Call for Abstracts](#). The third-annual Building Resilience through Public-Private Partnerships Conference will be held July 23-25, 2013, at Rutgers University's Department of Supply Chain Management in Newark, NJ. This year's conference theme, "Partnerships in Action: Enhancing National and Economic Security," will highlight successful public-private partnerships across the homeland security enterprise and is designed to identify solutions to coordinate gaps between the public and private sectors. The planning committee is accepting panel and keynote speaker suggestions from the public and private sectors. Please submit a brief overview of proposed presentations and speaker biographies to [PPPConference@hq.dhs.gov](mailto:PPPConference@hq.dhs.gov). This year's key themes are Hurricane Sandy response efforts, campus resilience, critical infrastructure and key resources, cyber security, and global supply chain resilience.

# ASFPM Calendar

*The events listed below are only the highlights of events of interest to floodplain managers. A complete list of flood-related training, conferences, and other meetings, including ALL the workshops and conferences of State Chapters and associations is always posted at*  
**[http://www.floods.org/n\\_calendar/calendar.asp](http://www.floods.org/n_calendar/calendar.asp)**

***June 9–14, 2013: 37TH ANNUAL CONFERENCE OF THE ASSOCIATION OF STATE FLOODPLAIN MANAGERS, Hartford, Connecticut. Contact (608) 274-0123 or see <http://www.floods.org>***

***June 1–6, 2014: 38TH ANNUAL CONFERENCE OF THE ASSOCIATION OF STATE FLOODPLAIN MANAGERS, Seattle, Washington. Contact (608) 274-0123 or see <http://www.floods.org>***

***May 31–June 5, 2015: 39TH ANNUAL CONFERENCE OF THE ASSOCIATION OF STATE FLOODPLAIN MANAGERS, Atlanta, Georgia. Contact (608) 274-0123 or see <http://www.floods.org>***

Are you looking for training opportunities to earn CECs for your CFM? If so, be sure to check out our web calendar, which already has LOTS of training opportunities listed for 2013! You can search the calendar by state using the directions below. Or you can use the category drop down menu to search by category.

**[http://www.floods.org/n\\_calendar/calendar.asp](http://www.floods.org/n_calendar/calendar.asp)**

- Go to the calendar and click on the search feature icon at the top of the calendar. Type your state's initials in parenthesis (for example "(WI)") into the search field and it will pull all the events (training, conferences, etc.) that are currently listed on the calendar for your state. What a great way to find upcoming training for CECs! The only events without a state listed in the event title are EMI courses which are all held in Emmitsburg, MD.

# NEWS & VIEWS

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[memberhelp@floods.org](mailto:memberhelp@floods.org)

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[Katrien@floods.org](mailto:Katrien@floods.org)

**Deadline is the last day of odd-numbered months.**

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

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