



**ASFPM FOUNDATION**  
**ASSOCIATION OF STATE FLOODPLAIN MANAGERS**  
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#### Mission Statement

The mission of the ASFPM Foundation is to promote public policy through select strategic initiatives and serve as an incubator for long-term policy development that promotes wise floodplain management.

## "FLOODMANAGER" AN INTERACTIVE PROFESSIONAL GAME

"FloodManager" is a serious computer game/simulator. It was conceived to teach decision-makers the primary floodplain management principles they can apply to their community to increase resilience against flood disasters and to guide and steward development in their community in a manner that provides the most benefits while adhering to the tenets and practices of No Adverse Impact (NAI). Economic development via property and sales tax revenues is a community's lifeblood, for both individuals and local government, so floodplains and other critical resource areas continue to be developed, but without the long-term foresight of knowing and planning for the consequences. "FloodManager" walks local decision-makers through various options regarding the use and development of floodplains as they grow a typical town. Then, after a selected period of time and exposure to random flood events, the consequences of those decisions can be viewed and analyzed.

The Foundation is currently in the implementation stages for engaging stakeholders such as CTPs in hosting workshops. Of primary importance is getting this learning tool into the appropriate agencies and offices where it will be put to the most productive use. Likely this distribution will be

through State Floodplain Managers and Hazard Mitigation Officers and through the ASFPM State Chapters. Since the current version of "FloodManager" can be built upon to provide an even more complex analysis and result format, the ability of the Foundation to fund such growth must be determined and, if found worthwhile and affordable, expanded and put into place. Various options for funding the future growth and



Introduction screen shot of flood manager game -  
Courtesy of Flood Manager User Manual

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use of "FloodManager" will be explored, but a primary method will be through company sponsorships. A company's name will be displayed prominently in the game scenario with a \$3,000 donation to this project. Please contact Foundation Development Chair Dale Lehman (301-258-9780) or any Foundation Trustee if you are interested!

Attendees at most official ASFPM conferences and events will have the opportunity to view the most current version of FloodManager. At many venues, it will be demonstrated by an ASFPM Foundation member or representative. Viewers are invited to provide written comments and suggestions to the Foundation by email to Curtis Beitel at [curtis.beitel@jacobs.com](mailto:curtis.beitel@jacobs.com) and/or Wally Wilson at [WallaceAWilson@earthlink.net](mailto:WallaceAWilson@earthlink.net). Comments may also be sent directly to [ASFPM@floods.org](mailto:ASFPM@floods.org).

## **Progress Report from the 2009-2010 Gilbert F. White Flood Policy Forum Series**

In March 2010, the ASFPM Foundation will host the Third Assembly of the Gilbert F. White National Flood Policy Forum, which will address "Managing Flood Risk," a concept that is growing in popularity. In order to lay solid groundwork for exploring this broad and complex topic, the ASFPM Foundation organized two Symposia and a Roundtable in preparation for the Forum itself. Symposium 1, "Defining and Measuring Flood Risk and Floodplain Resources," was hosted by URS Corporation on September 16<sup>th</sup>, 2009, in Gaithersburg, Maryland. Both "The Floodplain Natural Resources and Functions Roundtable" and Symposium 2, "Flood Risk Perception, Communication, and Behavior" were held in Washington, D.C., on November 3<sup>rd</sup> and 4<sup>th</sup>, 2009, and hosted by the National Wildlife Federation.

### **SYMPOSIUM 1**

Symposium 1 gathered 50 invited experts on September 16<sup>th</sup> to examine the best ways to approach the measurement of both the varied risks posed by floods and the many services provided by the natural functions and resources of flood prone areas. Participants recognized that agencies, organizations, and practitioners interpret "flood risk" and "flood risk management" through the lenses of their own flood-related missions. Symposium participants grappled with flood risk measurement issues by examining key questions, arriving at a set of recommendations.

#### **Do we share a common understanding of "Flood Risk"?**

There was universal agreement that "flood risk" does *not* mean simply property damage, but also includes broader societal and environmental concerns associated with flooding and with flood prone lands. Participants agreed that, as managers, we cannot influence behavior unless we share at least a general, conceptual understanding of what we mean by flood risk and what the desired

outcomes are. Agreement likely could be reached regarding components of "overall flood risk," and that would be a positive step.

#### **What management outcomes are most important?**

Participants agreed that the outcomes we desire from our management of flood risks and resources should cover these categories: (1) life safety, (2) economic damage, (3) societal impacts, (4) resilience/recovery, (5) ecological health, and (6) human awareness, behavior, and responsibility (including a fair apportionment of the costs of flooding and environmental degradation).

#### **How should risk be quantified and presented?**

Spatially, the nation should evaluate flood risk, consequences, and impacts on a watershed scale, but that brings some challenges in reflecting social, political, and other realities. Temporally, we need to benchmark flood risks and resources regularly (perhaps every 10 years) but also provide for event-driven interim benchmarks (a serious flood, a dramatic ecological change within the watershed, or a renewal cycle for a comprehensive or mitigation plan). We need to establish a suite of indicators for the above outcomes, and some of those indicators may be numerical.

The findings of Symposium 1 confirmed that we are not informing people about flood risk and floodplain resources appropriately. The more accurate and comprehensive our quantification of risk and resources becomes, the more it will support and inform the needed changes in behaviors and in policy, and also contribute the important step of evaluating progress.

### **NATURAL RESOURCES & FUNCTIONS ROUNDTABLE**

Although the Roundtable was not originally conceived as part of the Gilbert F. White Forum Series – and actually grew out of the informal

“Kitchen Cabinet” gatherings held at the ASFPM’s annual conferences – the strong support expressed at Symposium 1 for parallel work on risks and resources led the organizers to include the Roundtable as part of this year’s Forum series.

The Natural Resources and Functions Roundtable convened November 3rd with about 25 leading experts in floodplain and watershed management to explore these aims:

1. To establish an alliance of entities (not-for-profit organizations, states, federal agencies, and others) committed to the protection and restoration of the natural resources and functions of floodplains.
2. To identify opportunities—through policy development; rules and regulations; program authority, budget, and implementation; or other means—to raise the status of the natural functions and resources of floodplains so that their protection and restoration are considered to be at least as important as reduction of property damage, economic development, or other agendas that do not consider environmental values.
3. Develop an action agenda for such an alliance.

This proposed national alliance will help the Administration, Congress, federal agencies, states, local governments, and non-governmental organizations determine how to integrate of floodplain resource protection with existing floodplain management and flood risk management strategies.

## **SYMPOSIUM 2**

On November 4th, Symposium 2 gathered more than 60 experts in the field of flood risk management, communication, and related behavior to explore current messaging strategies with regard to flood risk and floodplain resources.

Dr. Dennis S. Mileti, Professor Emeritus of the University of Colorado at Boulder, presented the results of recent research on influencing the behavior of individuals and households so that they will take preparedness and mitigation action in the face of hazards. That study showed that information about risk has little or no impact on people’s behavior. Instead, people need to be given frequent, clear messages about what specific actions they should take, and how to get more information.

In light of Mileti’s findings, the ensuing discussions focused on these issues:

- What are the priority behaviors with regard to flood risk and floodplain resources that we should try to foster with our messages, incentives, standards, mandates, or other techniques? A list of desired behaviors and actions was developed, ranging from “taking individual and community responsibility for risks and resources” to “ending post-disaster bailouts.”
- Should we strive for consistent terminology when attempting to foster appropriate behaviors on the part of individual, households, organizations, and decision makers? Participants acknowledged that terminology must be consistent in order to foster appropriate action by the public, but that experts need to use a more complex range of language (including numbers) among themselves to express details and scientific underpinnings.
- Does “flood risk management” adequately brand the combination of flooding risk, risks to floodplain resources, and social risk in order to convey the urgency of the issues and fostering appropriate actions ? In response to this question, the group had a creative exchange of ideas about more expressive, colorful, and motivational language that could capture the holistic nature of managing our flood risks and floodplains. It was urged that any proposed new terminology be subjected to professional testing to determine its effect on people’s perceptions and actions.



**Symposium 2 – Photo courtesy of Diane Brown**

- Which of the messages we are sending (via the varied programs, mandates, incentives, and other activities) are effective in fostering appropriate behavior? Incentives were widely regarded by the Symposium experts as one of the most effective means of getting people to take action, especially communities. However, there was agreement that, in general, the techniques and messages in use today need to be scientifically evaluated to determine their effectiveness in bringing about behavioral change.
- Might there be merit in creating a high-level national messaging mechanism about floods and floodplains—perhaps a campaign (Click it or Ticket) or symbol (Smokey Bear)—that encompasses all of flood risk management? The experts at Symposium 2 were enthusiastic about the potential usefulness of a widespread, positive message about floods and floodplains, and voiced many suggestions—light-hearted and otherwise. They recognized, however, that professionals first must establish a consistent framework of goals, behaviors, and messages before a large-scale awareness effort can succeed.



Symposium 2 – Photo courtesy of Diane Brown

The agenda, background materials, Participants List, and summary are available for each of these events at [www.asfpmfoundation.org/Forum2010](http://www.asfpmfoundation.org/Forum2010). A report of the procedures, findings, and recommendations growing out of both Symposia, the Roundtable, and the Forum will be issued after the Forum itself takes place in the spring.

## AND NOW A WORD FROM OUR SPONSORS....

We appreciate the generous support we receive from our corporate sponsors. We thank PBS&J for their continued support of the Foundation. Below PBS&J talks about their firm and the services they provide:

PBS&J is a leading provider of program management, planning, architecture, landscape architecture, civil engineering, environmental science and engineering, transportation engineering, surveying and mapping, construction management, and data management. Engineering News-Record ranked PBS&J as 11<sup>th</sup> amongst the nation's top "pure" design consulting firms, and 30<sup>th</sup> among the top 500 design firms. Established 49 years ago, PBS&J - an employee-owned firm, has 3,700 employees in 80 offices nationwide.

PBS&J provides integrated floodplain management services including: riverine and coastal engineering, stormwater modeling, Flood Insurance Study and Digital Flood Insurance Rate Map production, as well as ArchHydro, GIS, and database applications. Additionally, PBS&J is a leader in multi-hazard mitigation planning services, risk communication, HAZUS support, and emergency response services. Our full range of services, technical vision, and dedication support Risk MAP goals.

For more information visit:  
<http://www.pbsj.com>

## WE'VE UPDATED OUR WEBSITE!

This year, the ASFPM Foundation website was updated with its own website address and a fresh look. The new site contains the functionalities of the old site along with added new and improved features for donations as well as allowing for better information sharing. Note that the new site is

available through the ASFPM web link at [www.floods.org](http://www.floods.org) or directly at [www.asfpmfoundation.org](http://www.asfpmfoundation.org).

## RESULTS OF THE LIVE AND SILENT AUCTION

The 2009 ASFPM Annual Conference proved to be a great success for the ASFPM Foundation. The Foundation hosted both a Live and Silent Auction at the Conference. A total of \$8,670 was raised at the Live Auction; \$7,659 was raised at the Silent Auction. The grand total raised by the ASFPM Foundation at the 2009 Annual Conference was \$16,329. Thank you to all of those who participated!



## FOUNDATION DONATIONS UPDATE

With a goal of \$210,000 this year, we still need your help! As of November 11, 2009, contributions equal \$78,000. Only through your generous support can we reach our final goal. Together we can help guide the future of wise floodplain management!

To donate online, please visit [www.asfpmfoundation.org](http://www.asfpmfoundation.org)

## Donors from July 1, 2009 to November 11, 2009

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