

# Flood Risk Management Newsletter

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## Nearshore Berm Webinars

**DATE CHANGED TO 29 November 2012**

The first Nearshore Placement Webinar is scheduled for the afternoon of November 29, 2012. Details will be posted on the CIRP and RSM websites: <http://cirp.usace.army.mil> or <http://rsm.usace.army.mil>. The webinar will start at 1:30 PM EST and end at 4:00 PM EST to accommodate our West Coast as well as our East Coast community.

The Regional Sediment Management and Coastal Inlets Research Programs will co-host a series of webinars on the topic of coastal nearshore placement. The two programs have collaborated on the research topic of nearshore berms over the last two years to develop improved documentation of projects and general guidance for this operational activity within a regional context. This first webinar will cover the recent advancements and techniques used by researchers at ERDC to address questions about nearshore placement. Topics for future webinars will be open to suggestions, but this series seeks to serve as a discussion board across disciplines and business lines within the USACE Districts.

POCs: Tanya Beck, [Tanya.M.Beck@usace.army.mil](mailto:Tanya.M.Beck@usace.army.mil) (601-634-2603); Dr. Julie D. Rosati, [Julie.D.Rosati@usace.army.mil](mailto:Julie.D.Rosati@usace.army.mil) (251) 694-3719; or Linda Lillycrop, [Linda.S.Lillycrop@usace.army.mil](mailto:Linda.S.Lillycrop@usace.army.mil), (202) 761-1837

## Coastal Systems Portfolio Initiative (CSPI) Donald Cresitello, NAN

CSPI began as an attempt to develop a rational technically and economically sound decision-making framework for the coastal program to assure coastal projects are able to provide the benefits for which each is explicitly authorized by Congress. Unpredictable funding streams



significantly impact the capacity for these projects to perform in accordance with their project purposes. Development of a systems approach to reduce damages and better manage risk due to coastal storms is crucial to demonstrating the significance of the service provided to the nation by the USACE Flood Risk Management Program through economic development, navigation, and ecosystem restoration. The connectivity of the three business lines must be considered when developing a systems approach to coastal risk management and reduction. Through the Planning Center of Expertise-Coastal Storm Damage Reduction (PCX-CSDR) the US Army Corps of Engineers initiated a process to examine and evaluate federal projects along the Nation's coastlines as a system of systems instead of as individual projects.

In order to successfully employ this necessary paradigm shift, three pilot studies are being undertaken to investigate the feasibility of taking a systems approach to more efficiently and effectively budget for, study and construct the coastal projects in the USACE Flood Risk Management, Navigation, and Ecosystem Restoration programs. The three pilot studies are: (1) maximizing sediment management along the South Shore of Long Island; (2) maximizing risk reduction along the coast of New Jersey; and (3) maximizing regional benefits for the coasts of Delaware, Maryland and Virginia. The challenge is to identify and demonstrate least cost solutions while providing the same level of benefits across every project area. The New Jersey Pilot Study is nearing completion. The New York and DelMarVa Pilot Studies are currently being re-scoped.

The goals for the NJ Pilot Study are to evaluate and to prioritize the network of USACE coastal projects in NJ for shore protection, navigation and coastal ecosystem restoration. The specific objectives are to: (1) identify cost efficiencies in meeting project purposes; (2) maximize risk reduction; and (3) maximize opportunities for regional sediment management. A panel of experts was selected to develop a rational, prioritized five-year plan for work at NJ beaches, inlets, and coastal ecosystem restoration projects that maximizes risk reduction for a given set of assumptions and constraints. The about 20-member panel included regional academic experts, the New Jersey Department of Environmental Protection (NJDEP), and the USACE New York and Philadelphia Districts, who share responsibility for NJ.

For this exercise, the panel was given a plausible upper limit for annual funding across these projects of about \$50M. Projects outside the \$50M limit represent the portfolio of projects that may not be accomplished. These projects present the challenge to all to identify and consider alternative funding mechanisms.

The findings are summarized in a Technical Review Document (TRD) and web database, which are updated on an annual basis. The technical review of coastal projects presents a qualitative analysis of existing conditions, resources at risk, estimated federal future costs (over a five-year period), and opportunities for action. The reliability-shore protection condition rating, developed in the TRD, provides a qualitative assessment of the need for project renourishment, based on an evaluation of the project's existing profile condition compared to its design profile and was incorporated into the FY13 Flood Risk Management budget engineering circular and is being used in the development of future budgets.

Until 2012, the TRD and web database included only projects in North Atlantic and South Atlantic Divisions. Coastal projects across the remainder of the Nation's coastlines, including projects from Louisiana to Washington, the states bordering the Great Lakes, Alaska, Hawaii, and the Pacific Territories, have been added to the document and web database in 2012. Coastal projects in Oregon and Alaska will be included in the Spring 2013 TRD and web database.

Within the next couple of months, the CSPI team will work to complete the Spring 2012 TRD, update the TRD for all of coastal USACE Districts for Spring 2013 and complete the three Pilot Studies. For a copy of the latest TRD or the draft NJ Pilot Study brochure and to view the website database, visit <http://cspi.usace.army.mil>, or contact Donald E. Cresitello, [donald.e.cresitello@usace.army.mil](mailto:donald.e.cresitello@usace.army.mil).

## **And Now the Rest of the Story**

**Susan Durden, IWR; Lynn Bocamazo & Donald Cresitello, NAN**

Why are Corps levee projects valuable? Most people would reply with some version of "Because they reduce risk and damages to property and people."

Why are Corps coastal flood risk management projects valuable? The answer can vary widely depending on the perspective of the person responding. Through beach nourishment, coastal flood risk management projects often result in beautiful beaches, increased recreation and expanded habitat. However, the primary purpose of beach nourishment projects is to reduce risk and damages to property and people. So how much do they reduce damages? Good question.

The Corps has been required to report to Congress damages prevented at riverine projects since the 1930s. There is no similar requirement for coastal projects, and no national quantification or reporting of damages prevented is done. Thus the Corps has not been able to inform stakeholders and Congress of the value of these projects, nor does the Corps have this data as input to its own decision making. A team is currently developing a process for calculating a nationally consistent, agency-wide, coastal-damages-prevented value. This will enable the Corps to report a national portfolio performance value for coastal flood risk management projects.

The work on the coastal-damages-prevented value is funded by the Flood Risk Management/Coastal Storm Damage Reduction Research and Development Program (CSDR). The team involved in this work is composed of Lynn Bocamazo and Donald Cresitello, both of the Planning Center of Expertise for Coastal Storm Damage Reduction and the New York District (NAN); Susan Durden and Brian Harper, both of the Institute for Water Resources (IWR); Mark Gravens, of the Engineer Research and Development Center, Coastal and Hydraulics Laboratory; Lori Hadley, of the Jacksonville District; Chuck Mesa, of the Los Angeles District; as well as personnel from FEMA, NOAA and contractors. The goal is to have a procedure which is nationally consistent, flexible to local situations, requires minimal effort, includes a damage inventory and produces standard output/documentation. The team is currently

working on case studies. The results of these will be analyzed, the draft procedure revised, and additional case studies undertaken in the first half of FY 13. Look for an update in a future FRM Newsletter. POC: Susan Durden, [susan.e.durden@usace.army.mil](mailto:susan.e.durden@usace.army.mil) .

**National Association of Flood and Stormwater Management  
Agencies Annual Meeting  
Lauren Leuck, IWR**

The National Association of Flood and Stormwater Management Agencies (NAFSMA) 2012 Annual Meeting was held 13-16 August in Coeur d'Alene, ID. This meeting provided USACE leaders an opportunity to talk with stakeholders on a variety of issues including flood risk management, levee safety, Civil Works Transformation, and current challenges faced by USACE. The Levee Safety Program highlighted the National Levee Database (NLD) with an exhibit that allowed attendees to learn more about the program and get online to explore the NLD.

COL Robert Tipton, Deputy Commander of Northwestern Division, welcomed attendees and provided an update on the NWD's activities. Mr. Doug Lamont, Deputy Assistant Secretary of the Army, discussed the current status of USACE projects and the Principles and Guidelines update, among other topics. Mr. Steve Stockton, Director of Civil Works, provided an update on Civil Works Transformation and Mr. Tab Brown, Chief of the Planning and Policy Division, presented on the Planning Modernization piece of this initiative. Mr. Ray Alexander, Deputy Chief of Homeland Security, discussed the latest activities of the Levee Safety Program including the NLD, levee inspections, vegetation management, and risk assessments. Ms. Donna Jones, Chief of the Enforcement Section at the Rock Island District Regulatory Branch, discussed the regulatory and permitting challenges confronted by the Missouri River Flood Recovery Task Force following the 2011 flooding. Presentations from the speakers can be found at: <http://nafsma.org/meetings-upcoming.php> .

NAFMSA recognized leaders in communication with the 2012 Excellence in Communication Awards. The U.S. Army Corps of Engineers received Special Recognition for Public Awareness of Flooding for the 2011 Mississippi River Flood Flight Strategic Communications. First place for Public Awareness of Flooding was awarded to the Santa Clara Valley Water District's 2010-11 Charles "Chicken" Little Flood Safety Awareness Campaign. Second place went to the County of Los Angeles Department of Public Works Sediment Management Public Outreach Campaign.

USACE leadership held informal meetings with FEMA, NAFSMA, and the Association of State Floodplain Managers (ASFPM) and discussed further collaboration and communication among the organizations, National Flood Insurance Program (NFIP) reauthorization, levee safety, and risk communication.

The NAFSMA is an organization of public agencies whose function is the protection of lives, property and economic activity from the adverse impacts of storm and flood waters. The mission

of the Association is to advocate public policy, encourage technologies and conduct education programs which facilitate and enhance the achievement of the public service function of its members. (POC: [Lauren.Leuck@usace.army.mil](mailto:Lauren.Leuck@usace.army.mil) )

## **USACE Levee Safety Community of Practice: News to Use**

**Jennifer Dunn, IWR**

The U.S. Army Corps of Engineers (USACE) National Flood Risk Management Program seeks to integrate and synchronize USACE flood risk management programs and activities, internally as well as with counterpart activities in the Department of Homeland Security, Federal Emergency Management Agency (FEMA), other Federal agencies, state organizations, and regional and local agencies. While FRM touches a wide array of Communities of Practice (CoPs), one of the most visible flood risk management programs within USACE is the Levee Safety Program.

During the week of 27 August, over 120 Levee Safety Officers, Levee Safety Program Managers and invited guests met to share updates on program activities and consistency of messages within the program, discuss impacts of policies and procedures, and to discuss ongoing efforts as the USACE culture adjusts to include risk methodologies. The risk framework, assessing risk, communicating risk and managing risk, is at the foundation of the Levee Safety Program. While USACE has a responsibility to assess risks and benefits associated with levee systems in the USACE program, this assessment is far less meaningful without accompanying communication and management of risk and benefits. A significant lesson learned in success is that the best communication efforts involve the levee system sponsor throughout both routine and non-routine processes. Further, when communication is uncoordinated or lacking, or when sponsor expectations are not met, the impacts can be high and the effort required to fix the situation can be quite costly.

FEMA's FloodSmart program presented a number of lessons learned from their experience in communicating flood risk and the need for flood insurance. They have also developed testimonials and interactive tools for other organizations' use. The program's key challenge has been overcoming denial of risk. Do the comments "the risk stops at a line on a flood map", "I'm already covered, my homeowner's policy covers flood", and "if my home does flood, it's no big deal" sound familiar? Through research and message testing, FloodSmart has found the most successful means of overcoming this challenge is to vividly personalize the consequences of flooding. This can be done by illustrating the threat to financial security ('I could lose my savings'), threat to way of life ('I could lose my home, my possessions, my business'), and avoiding regret ('Floods are dirty and cleanup will be horrible, I'll kick myself for not having insurance.'). Other influential factors in successful communication include (a) communicating when flood is top-of-mind (e.g., map changes, levee discussions, flood likelihood), (b) recognizing that risk communication is an ongoing conversation not a one-time presentation, and (c) focusing on actions to take immediately that will avoid negative consequences later. Shareable tools to communicate general flood risk and the NFIP, including a cost of flooding estimator, are available for download at <http://www.floodsmart.gov/floodsmart/> at the community resource tab. Tools such as fact sheets and StrongPoints, on topics including risk

assessment, risk-informed decision-making and interim risk reduction measures specifically developed for communicating flood risk associated with levee systems, are available through the Public Affairs Office SharePoint site, <https://cops.usace.army.mil/sites/PA/default.aspx>. A comprehensive fact sheet for each specific levee system will be developed by each District Levee Safety Program Manager.

Over the last 9 months, the Levee Safety Program has engaged in planning and product development, stakeholder engagement, and vetting to develop effective communication of the risks and benefits associated with levee systems, including the Levee Safety Action Classification (LSAC). Final leadership vetting is expected soon. Moving forward, an initial 43 levee systems will serve as pilots. Lessons learned in federal interagency coordination and stakeholder feedback will inform communication of the risks and benefits associated with additional levee systems. Both during the pilots and additional levee system risk communication, Flood Risk Managers and Silver Jackets Coordinators are asked to take a role in coordinating the interagency communication of risk, as well as interagency planning and implementation of interim risk reduction measures in a shared responsibility context. Flood Risk Managers, Silver Jackets Coordinators and Levee Safety Program Managers were asked to discuss the revised Levee Safety path forward with state teams, and plan their District's specific actions together with PAO and Planning, at a minimum. For more information, contact your District Levee Safety Program Manager, Flood Risk Program Manager and/or Silver Jackets Coordinator ([www.nfrmp.us/state](http://www.nfrmp.us/state)). (POC: Jennifer Dunn, [Jennifer.K.Dunn@usace.army.mil](mailto:Jennifer.K.Dunn@usace.army.mil) )

## **ERDC and IRSTEA Collaborate**

### **Maureen Corcoran, ERDC GSL**

During the week of 24-27 September 2012, Dr. Maureen K. Corcoran, Dr. Joe B. Dunbar, and Don Yule from the U.S. Army Engineer Research and Development Center (ERDC) met with scientists and engineers with National Research Institute of Science and Technology for Environment and Agriculture (IRSTEA) in Aix-en-Provence, France. The purpose of the meeting was to promote an exchange and to initiate collaboration of scientific and engineering expertise in studying remote sensing and monitoring of infrastructure, phenomenology of piping and seepage, and the effects of woody vegetation on levees. Both ERDC and IRSTEA presented their respective research on these topics. ERDC is currently conducting research in these areas in the project titled 'Improving Flood Risk Management and Water Control Infrastructure Resiliency and Reliability' under the U.S. Army Corps of Engineers' Flood and Coastal Storm Damage Reduction Program. IRSTEA also led a field trip that enhanced discussions of sea dikes,



**1 Woody vegetation on levees, Aix-en-Provence, France**

in Saintes-Maries-de-la-Mer, and construction and design of levees, in Camargue, France. (POC: Maureen Corcoran, [Maureen.K.Corcoran@usace.army.mil](mailto:Maureen.K.Corcoran@usace.army.mil) )



2 Levees in Camargue, France

## **Levee Vegetation Research Symposium 2012**

**Maureen Corcoran, ERDC GSL**

Six research scientists and engineers from the USACE Engineer Research and Development Center as well as multiple engineers from USACE districts throughout the country participated in the 2012 Levee Vegetation Research Symposium in Sacramento California on August 28-30, 2012. This symposium was a follow-on symposium to the first vegetation research symposium held in Sacramento in August 2007. The 2012 Vegetation Symposium was designed to provide the opportunity for the last five years of research in this area to be shared among various national and international stakeholders.

Representatives from over 30 states and multiple countries attended the event. Research was presented on the impacts of woody vegetation on levee performance, the properties and characteristics of woody vegetation, and the interaction between woody vegetation in riparian environments and salmon. An expert panel discussed the risks associated with woody vegetation on levees relative to risks from other issues (earthquakes, burrowing rodents, and erosion). Another expert panel discussed the impacts of woody vegetation on levee maintenance and inspection. Numerous speakers discussed how other countries handle the issue of woody vegetation on flood protection systems. (POC: Maureen Corcoran, [Maureen.K.Corcoran@usace.army.mil](mailto:Maureen.K.Corcoran@usace.army.mil) )

## **Know Your Line: Be Flood Aware**

**Lauren Leuck, IWR**

The “Know Your Line” initiative is urging communities to showcase that flooding can – and has – “happened here.” Floods are the most common and costly natural disaster in the country and significant opportunities exist for individuals to prevent flood damage. The Federal Emergency Management Agency (FEMA) and seven other federal agencies concerned about flood risk are working with local officials to help their residents do just that. Together, a Federal working group is developing a turnkey outreach initiative to assist local officials in elevating the issue of

flood risk within their communities. The initiative, “Know Your Line: Be Flood Aware,” will help communities showcase their local history of flooding and motivate residents to take action.

This initiative encourages local officials to post high water mark signs in prominent places throughout their community – for example on city hall, libraries, or tourist attractions – to identify how high flood waters have risen in the past. Communities will then be encouraged to hold a high profile event to announce the initiative, followed by supporting activities to continue to remind residents of their flood risk and prompt them to take steps to reduce it.

Over 30 years, the length of a typical mortgage, there is a 26 percent chance of a 100-year or greater flood occurring. But residents and businesses often take few, if any, steps to protect themselves from these potentially life-changing events, opting instead to trust that, “It won’t happen here.”

The majority of local officials understand that flooding not only can happen here, it likely has. Whether a community experienced severe flooding a century ago or just last spring, showcasing the dramatic outcome of a community’s most severe flood can offer a powerful testimony and daily reminder to residents and businesses, empowering all to understand the consequences of flooding and reduce their risks before the next one.

Through its nationwide survey of homeowners FEMA found that citizens expect to hear about flooding from their local officials. As a result, local officials have a unique opportunity to raise awareness of flooding risk in their community. Communities that reach out to the public to help prevent the effects of flooding accomplish the following:

- underscore their commitment to the well-being of residents and the local business community;
- galvanize their community to take steps now to reduce the often devastating impact of floods;
- can receive Community Rating System Rating (CRS) points to reduce the cost of flood insurance; and
- can put Federal and state mitigation assistance funds to work.

To gain local officials’ perspectives on the elements of the Know Your Line initiative, FEMA and its partners are preparing to work with up to six pilot communities. These communities will be the first to review the initiative’s tools and materials and will provide insight into the campaign prior to the national roll-out. Members of the Federal working group will work with these communities to tailor a strategy and materials to suit each community’s needs, provide recommendations and consultation on implementation activities, and provide recognition to pilot participants online and at conference and trade association meetings.

### **Agencies Supporting the Know Your Line Initiative**

- Federal Emergency Management Agency
- National Oceanic and Atmospheric Administration
- National Park Service
- U.S. Army Corps of Engineers
- U.S. Department of Agriculture
- U.S. Department of Housing and Urban Development
- U.S. Geological Survey
- U.S. Small Business Administration

Following the pilots, the working group will further refine the approach and then offer the Know Your Line initiative's strategy, tools, and relationships to communities nationwide. To learn more about the Know Your Line Initiative, please contact Lauren Leuck at IWR, [lauren.leuck@usace.army.mil](mailto:lauren.leuck@usace.army.mil).

**RESSED – A National Web-Accessible Interactive Reservoir  
Sedimentation Survey Database**  
**Deborah Cooper, CHL**

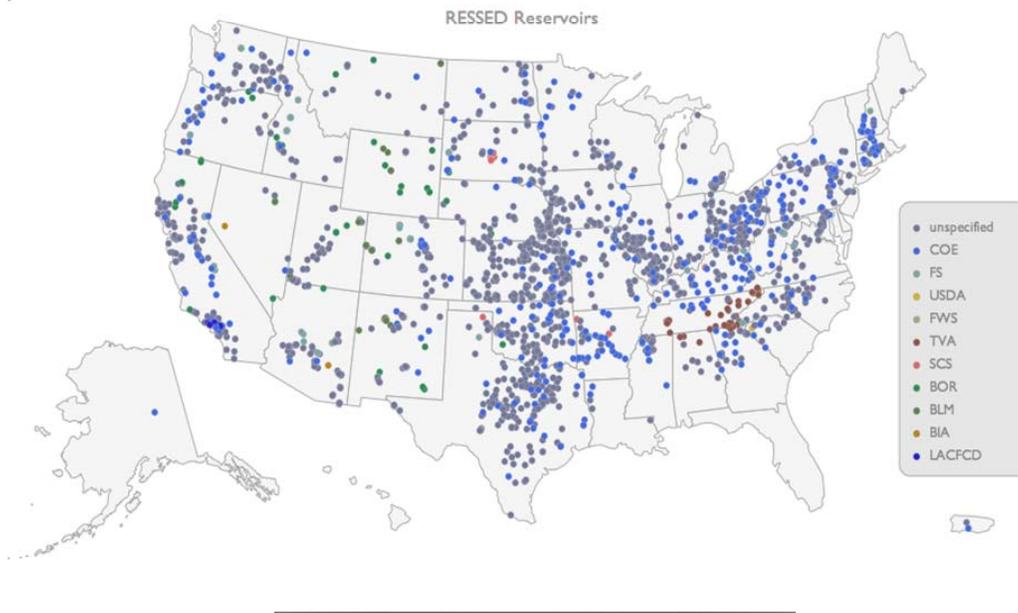
The U.S. Army Corps of Engineers (COE), U.S. Geological Survey (USGS), and Bureau of Reclamation (BR), collaborated on creating the Reservoir Sedimentation Survey (RESSED) website and enhanced database. This database is a comprehensive compilation of data and explanatory information from reservoir bathymetric and dry-basin surveys in the U.S. Data in RESSED can be used for a number of purposes, including calculating changes in reservoir storage characteristics, quantifying sediment budgets, and estimating erosion rates in a reservoir's watershed.

RESSED is a user-friendly database, utilizing the data in the Microsoft Access © version of RESIS-II (REServoir Information System-II), data from a 2008 COE data call on Reservoir Sedimentation, data ported in 2012 from database on reservoir-capacities for about 90 Bureau of Reclamation reservoirs, and other descriptive information in a FileMaker Pro © database management system. FileMaker Pro © is web-friendly and capable of receiving data from and porting data to a wide variety of databases. RESIS-II, <http://ida.water.usgs.gov/ressted/>, was placed online in 2006 and contains results from over 6,000 surveys at 1,823 US reservoirs, and two surveys at a reservoir in Puerto Rico, see figure below. Data span the period 1755-1997, with 95 percent of the surveys dated between 1930-1990. Reservoir surface areas range from a 6-m<sup>2</sup> pond to 658 km<sup>2</sup> Lake Powell. These 1,823 reservoirs represent about 0.03 percent of the 6,376,110 reservoirs, lakes, and ponds in arid areas, and those with a minimum width of 30 m in non-arid areas identified in the USGS 1:24,000-scale National Hydrography Dataset. RESSED has, or will have by September 2012:

- A logical “21ST century” schema
- User-friendly input functionality
- Useful summary reports
- A QA/QC module for data verification
- All data residing in RESIS-II
- Information for hundreds more COE and BR reservoirs

Engineers in the ERDC Coastal and Hydraulics Laboratory River Engineering Branch verified the reservoir sedimentation data in the 2008 data call database and coordinated field testing of the RESSED data input module by several Corps Districts. As of August 2012, the data input module had been beta tested by several Corps districts, and the reports and QA/QC modules are nearing completion by USGS programmers. Efforts are being directed toward identifying bugs for finalization and release of RESSED to the Corps by 30 September 2012. RESSED may be released nationwide if funds are allocated in FY2013 and thereafter. As of September 2012, the

source of post-FY2012 funds other than those identified for program maintenance had not been identified.



Map of RESSED-documented reservoir locations (USBR September 2012).

Participants in this effort include: Deborah Cooper, Engineer Research and Development Center; Jennifer Gitt, Paul Boyd, and Daniel Pridal, U.S. Army Corps of Engineers; Jennifer Bracewell, Kevin Laurent, and John R. Gray, U.S. Geological Survey; and Jan Oliver and Timothy Randle, Bureau of Reclamation. (POC: Deborah Cooper, [Deborah.R.Cooper@usace.army.mil](mailto:Deborah.R.Cooper@usace.army.mil))

### **FRM and SJ Workshop** **Stephanie Bray, HQ**

The 3<sup>rd</sup> Flood Risk Management (FRM) and Silver Jackets (SJ) Workshop was held 20-24 August in Harrisburg, Pennsylvania. About 260 members of the Flood Risk Management and Silver Jackets community participated this year. Approximately 50% of the participants were representatives of USACE, 23% were representatives of other Federal agencies, 15% were State representatives, 2% were local representatives, and 11% had other affiliations. This broad mix of participants stimulated enthusiastic discussion and sharing of ideas, which was facilitated by a series of regional group discussion sessions. During these sessions workshop participants were encouraged to sit with the partners they work with in their home offices to discuss what they had heard during the session and what actions they planned like to take when they returned home. During the closing session of the workshop each regional group shared one action that they planned to take when they returned home.

The workshop opened 21 August with brief welcoming remarks from COL Trey Jordan, the USACE Baltimore District Commander. Mr. Glenn Cannon, Director of the Pennsylvania Emergency Management Agency, then discussed the challenges and opportunities in flood risk management in the state and offered a review of their experiences during Hurricane Irene and Tropical Storm Lee in 2011. MG Walsh provided the keynote luncheon speech which highlighted his views on the importance of the FRM and SJ Programs. He also presented awards for the Flood Risk Manager Coordinator of the Year, Silver Jackets Coordinator of the Year, and the Silver Jackets Team of the Year. Ms. Karen Durham-Aguilera (USACE Director of Contingency Operations and Homeland Security) and Dr. Sandra Knight (FEMA) both offered their perspectives and provided information on current initiatives and the current activities of the Federal Interagency Floodplain Management Task Force.

Other topics repeated throughout the workshop included risk communication, mitigation activities, resilience in coastal communities, Silver Jackets interagency projects, consideration of whole community benefits in project planning and development, and integration of Silver Jackets teams into Joint Field Offices after flood events. These topics were the focus of a number of plenary session discussions and were incorporated into many break-out sessions. Numerous break-out sessions focused on risk communication, experiences with flood mapping tools, mitigation and mitigation planning, and tools for flood risk management.

Various optional training courses were offered before the workshop opened. These sessions included a CFM Refresher course, risk communication, nonstructural mitigation, flood insurance, hydrologic warning systems, and an introduction to the Corps of Engineers for our partners. Further information sessions were offered over lunch on topics such as the WISDM program, SimSuite, the National Levee Database, the FPMS Database Program, the FRM and SJ website revision process, and the National Weather Service Flash Flood Services.

Attendees were offered the opportunity to participate in one of two field trips at the close of the workshop. One group toured the area surrounding Harrisburg, including Three Mile Island, and held discussions of local flood risk management issues and the impacts of the 2011 floods. The second group visited the Pennsylvania Emergency Operations Center and the Disaster Recovery Center (formerly the Joint Field Office). For information on the Workshop, see <http://www.nfrmp.us/frmpw/>. (POC: Stephanie Bray, [Stephanie.N.Bray@usace.army.mil](mailto:Stephanie.N.Bray@usace.army.mil) )

## **Other Links – Information, Newsletters, Fun Stuff**

Silver Jackets newsletter is available on the **Silver Jackets** website – <http://www.nfrmp.us/state/>

CIRP Newsletters are available at <http://cirp.usace.army.mil/news/>

## **14th Annual CIRP Technology Transfer Workshop**

The 14th Annual CIRP Technology Transfer Workshop is tentatively scheduled for 11-13 February 2013 in the Jacksonville District office, immediately prior to and in conjunction with

the Florida Shore and Beach Preservation Association (FSBPA) conference. Watch the CIRP website "Technology Transfer" tab for workshop topics, agendas, and registration information: <http://cirp.usace.army.mil/workshops/>. If you would like to be included on a pre-workshop mailing list, please email Julie Rosati. POC: [Julie.D.Rosati@usace.army.mil](mailto:Julie.D.Rosati@usace.army.mil)

\*This workshop will be held provided approval is granted. Paperwork is pending.

## Subscribe – Unsubscribe – Feedback

To subscribe/unsubscribe: <http://operations.usace.army.mil/flood.cfm>.

We would love your input – recommended article length is ½ to 1 page. Articles should be submitted to Doyle L. Jones, Canvassing Editor, [Doyle.L.Jones@usace.army.mil](mailto:Doyle.L.Jones@usace.army.mil).

We would also appreciate your feedback. Contact Dinah McComas, Managing Editor, [Dinah.N.McComas@usace.army.mil](mailto:Dinah.N.McComas@usace.army.mil) or Doyle Jones.

## Conferences

*This listing is for information only and is not a complete list of FRM-related meetings. These meetings are not endorsed by the Corps of Engineers unless specifically stated. If we have failed to list a conference/meeting/symposium that would be of interest to the Flood Risk Management community, please forward the conference details to us.*

20 – 22 November 2012 – FLOODrisk 2012 – The 2<sup>nd</sup> European Conference on Flood Risk Management – Rotterdam, The Netherlands – [www.floodrisk2012.net](http://www.floodrisk2012.net)

10 – 13 December 2012 – ACES and Ecosystem Markets 2012 – Ft. Lauderdale, FL – [www.conference.ifas.ufl.edu/aces](http://www.conference.ifas.ufl.edu/aces)

11-13 December 2012 – 4<sup>th</sup> International Conference on Sustainable Irrigation and Drainage: Management, Technologies and Policies – Adelaide, Australia – <http://www.wessex.ac.uk/irrigation2012rem3.html>

21-24 January 2013 – Gulf of Mexico Oil Spill & Ecosystem Science Conference – New Orleans, LA - <http://www.gulfresearchinitiative.org/news-and-events/gulf-of-mexico-oil-spill-ecosystem-science-conference/>

13-15 February 2013 – National Conference on Beach Preservation Technology – Jacksonville, FL - [www.fsbpa.com/techconference.htm](http://www.fsbpa.com/techconference.htm)

15-17 January 2013 – 13<sup>th</sup> National Conference on Science, Policy and the Environment – Washington, DC – <http://www.environmentaldisasters.net/>

11-12 April 2013 – Port & Terminal Technology 2013/ 5<sup>th</sup> International USA Conference & Exhibition – Virginia -

25-28 March 2013 – 2013 National Hurricane Conference – New Orleans, LA -  
[www.hurricanemeeting.com](http://www.hurricanemeeting.com)

9 – 11 April 2013 – 3<sup>rd</sup> International Conference on Physical Coastal Processes, Management and Engineering – Gran Canaria, Spain - <http://www.wessex.ac.uk/coastal2013?e=3-184019>

21 – 23 May 2013– 7<sup>th</sup> International Conference on Sustainable Water Resources Management – New Forest, UK – <http://www.wessex.ac.uk/wrm2013cfp.html>

22 – 24 May 2013 – 7<sup>th</sup> International Conference on River Basin Management including all aspects of Hydrology, Ecology, Environmental Management, Flood Plains and Wetlands – New Forest, UK – <http://www.wessex.ac.uk/rbm2013cfp.html>

3-6 June 2013 – National Hydrologic Warning Council 10<sup>th</sup> Training Conference and Exposition – Ponte Vedra, FL -  
[http://www.hydrologicwarning.org/content.aspx?page\\_id=22&club\\_id=617218&module\\_id=109790](http://www.hydrologicwarning.org/content.aspx?page_id=22&club_id=617218&module_id=109790)

9 – 14 June 2013 – ASFPM 37<sup>th</sup> Annual National Conference – Hartford, CT –  
<http://www.floods.org>

10-13 June 2013 – Oceans’13 – MTS/IEEE Bergen – Norway –  
[www.oceans13mtsieeebergen.org](http://www.oceans13mtsieeebergen.org)

8-12 July 2013 – ESRI International User Conference – San Diego, CA -  
[http://www.esri.com/events/user-conference/index.html?WT.mc\\_id=EmailCampaign14659](http://www.esri.com/events/user-conference/index.html?WT.mc_id=EmailCampaign14659)

29 July – 2 August 2013 – 5<sup>th</sup> National Conference on Ecosystem Restoration (NCER) – Chicago, IL - [www.conference.ifas.ufl.edu/NCER2013](http://www.conference.ifas.ufl.edu/NCER2013)

4-9 August 2013 – 98<sup>th</sup> Annual Meeting of the Ecological Society of America – Minneapolis, MN – <http://www.esa.org/minneapolis>

4-6 September 2013 – Water and Society 2013 – 2<sup>nd</sup> International Conference on Water and Society – New Forest, UK - <http://www.wessex.ac.uk/watersoc2013?e=2-183374>

23 -27 September 2013 – Oceans 2013 MTS/IEEE – San Diego, CA -  
[www.oceans13mtsieeesandiego.org](http://www.oceans13mtsieeesandiego.org)

23-27 September 2013 – PIANC – SMART Rivers Conference – Maastricht, The Netherlands,  
<http://smartrivers2013.org/home>

6-11 October 2013 – 5<sup>th</sup> World Conference on Ecological Restoration – Madison, WI -  
<http://www.ser2013.org/>

1 – 6 June 2014 – ASFPM 38<sup>th</sup> Annual National Conference – Seattle, WA –  
<http://www.floods.org>

14-19 September -2014 – Oceans 2014 MTS/IEEE – St. John’s, Newfoundland and Labrador,  
Canada – [www.oceans14mtsieeeestjohns.org](http://www.oceans14mtsieeeestjohns.org)