

FRM BUZZ

NEWSLETTER

Reducing Flood Risk: Many Partners, One Team



Sacramento District teams win national planning awards for Flood Toolkit and Tribal Workshops *p.11*

FEMA Region 8 completes first artworks pilot project: 'Community Forms'

The ArtWorks initiative seeks to create art that is eye-catching and interactive, while communicating the importance of flood risks and mitigation.

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Launch of National Levee Safety Program

The National Levee Safety Program is a joint effort of USACE and FEMA, which are working to outline an approach involving stakeholder engagement to develop long-term foundational components.

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FRM BUZZ NEWSLETTER



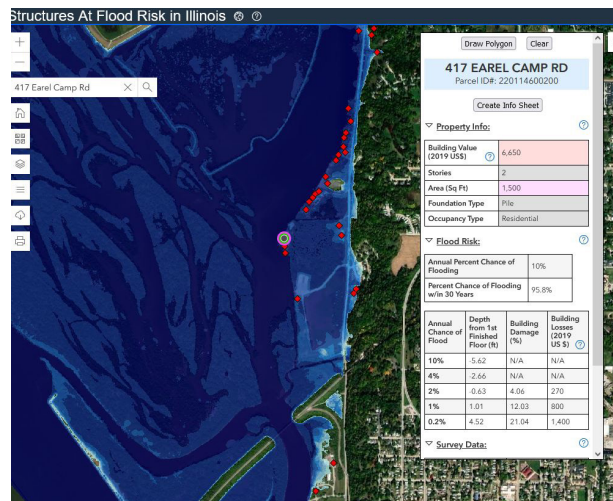
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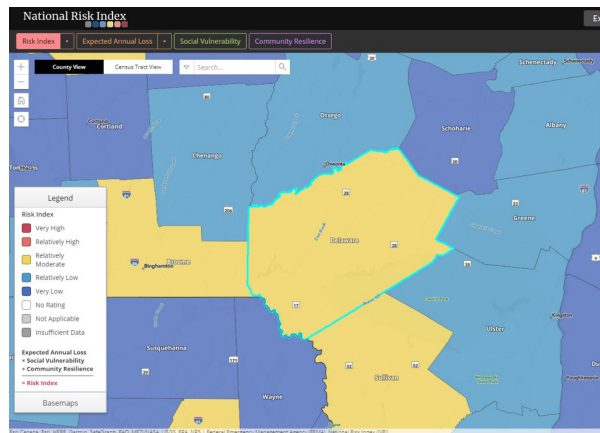
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Inundation mapping and structural damage assessment in Illinois

The Illinois Silver Jackets team is collaborating to pull together resources to compute data and communicate at a structure-by-structure level in order to better plan for and mitigate flood risk for Illinois River communities.

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FEMA launches full application of National Risk Index

FEMA recently announced the full application launch of the National Risk Index, an online mapping application that provides a holistic view of community risk through baseline relative risk scores.

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On the cover

Sacramento District employees receive national Programmatic Planning Teams Of The Year awards

Two Sacramento District teams received the USACE National Programmatic Planning Team of the Year Award for their contributions to the California Flood After Fire Toolkit in 2020 and the Interagency Tribal Workshops in 2019. Both harnessed the spirit of cooperation, collaboration and innovation to bring federal, state, tribal, and local entities together and to produce outcomes recognized at the national level.

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Building strong connections

By Mark Roupas, Deputy Chief, Office of Homeland Security



Greetings, team! I am pleased to open this edition of the FRM Buzz by recognizing the recipients of the 2020 and 2021 Flood Risk Manager of the Year, Silver Jackets Coordinator of the Year and Silver Jackets Team of the Year awards.

Building strong connections is at the heart of what U.S. Army Corps of Engineers (USACE) flood risk managers, USACE Silver Jackets coordinators, and state Silver Jackets (SJ) teams do. Through their day-to-day efforts, they bring together people from different programs within USACE, from other federal and non-federal agencies, and from communities working to manage flood risks. They create opportunities for these different players to learn about each other, share ideas, and engage in conversations to better understand and provide the types of support communities need to manage flood risks and build resiliency.

The National Flood Risk Management Program (NFRMP) annually issues awards to recognize exceptional work by USACE flood risk managers, Silver Jackets coordinators and state Silver

Jackets teams. At the August 18, 2021, internal NFRMP Community webinar, Stephanie Bray, NFRMP program manager, announced the 2020 and 2021 recipients of these three awards.

I would like to take this opportunity to recognize the awardees and thank them for their perseverance, creativity, and hard work. I hope that by sharing examples here of their innovative practices for building connections, they might serve as sources of ideas for others.

Flood Risk Managers and Silver Jacket Coordinators of the Year Awards

The Flood Risk Manager and Silver Jackets Coordinator of the Year awards recognize USACE individuals serving in these roles who demonstrate leadership in the NFRMP through their work within their district, interagency team(s), and with other federal and non-federal partners. Such leadership involves bringing together and improving internal coordination among different communities of practice, programs, and activities that influence or are influenced by flood risk management to better achieve NFRMP goals. It requires understanding other federal agencies' programs and inspiring collaboration and coordination among other agency partners to achieve or further NFRMP goals. Finally, it requires understanding the needs of non-federal partners and assisting in bringing USACE and other federal and non-federal resources together to meet those needs consistent with NFRMP goals. In the case of Silver Jackets coordinators, this involves integrating these resources effectively to address the state's flood risk management priorities in support of the state Silver Jackets teams.

Recipients of the Flood Risk Manager and Silver Jackets Coordinator of the Year awards are selected by a panel composed of members from USACE Headquarters and the Institute for Water Resources.

2020 Flood Risk Manager of the Year

Congratulations to Rachael Orellana at USACE Sacramento District, for her selection as the 2020 Flood Risk Manager of the Year.

Orellana built and now leads one of the largest USACE Flood Risk Management programs, with a value of \$12.9 million, including 39 projects and program accounts. The district Flood Risk Management team she oversees serves as the USACE lead to three state Silver Jackets teams in California, Nevada and Utah. It also supports teams in Colorado and Texas.

Orellana built new and reestablished existing partnerships within and external to USACE, including favorable relationships with more than 40 external agencies. She spearheaded a recent, multi-year effort to improve how USACE and its partners respond to the multi-faceted threat of flood after fire. The tools developed as part of this effort have been shared widely by states and federal partners and have inspired other state teams to pursue similar work.

Orellana also increased internal coordination within USACE and willingly shares her expertise and tools throughout the region to improve coordination and efficiency in delivering the mission and to mentor flood risk management leaders. She makes it a priority to share success stories and lessons learned through submission of newsletter articles, webinar

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2020 AND 2021 NFRMP AWARD WINNERS

2020 Flood Risk Manager of the Year Rachael Orellana, Sacramento District	2021 Flood Risk Manager of the Year Paul Sclafani, Portland District
2020 Silver Jackets Coordinator of the Year Nik Richard, New Orleans District	2021 Silver Jackets Coordinator of the Year Jaysson Funkhouser, Little Rock District
2020 Silver Jackets Team of the Year Puerto Rico Silver Jackets team	2021 Silver Jackets Team of the Year Nebraska Silver Jackets team

presentations and through upward reporting.

2021 Flood Risk Manager of the Year

Congratulations to Paul Sclafani at the USACE Portland District for his selection as the 2021 Flood Risk Manager of the Year. Sclafani serves as the Portland District flood risk manager, the USACE Silver Jackets coordinator supporting the Oregon Silver Jackets team, and the Portland District Floodplain Management Services (FPMS) program manager.

In the last year, Sclafani has made a major effort to enhance the district's Flood Risk Management Program in three key areas – communication, process, and preparation. This resulted in increased internal coordination and communication and improved upward reporting to district leadership. He also developed processes and procedures to improve the district's flood preparedness.

In 2020, Sclafani invested significant effort in addressing the post-wildfire flood risks associated with record-setting Oregon wildfires that impacted district infrastructure and significantly affected state infrastructure and resources. He guided district Flood Risk Management team support and managed communication with internal and external partners. His programmatic and technical knowledge enabled him

to communicate post-wildfire risk and ensure appropriate risk analyses were completed. At the same time, he was part of the support provided by a well-prepared Oregon Silver Jackets team, which had developed a Post-Wildfire Playbook under his guidance, years before the 2020 fire.

His participation and technical guidance require a tremendous level of coordination, mentoring of staff, and meticulous attention to detail. His dedication and hard work are essential in helping communities, and his leadership skills identify him as an asset to the region and to USACE.

2020 Silver Jackets Coordinator of the Year

Congratulations to Nik Richard, at the USACE New Orleans District, who was selected as the 2020 Silver Jackets Coordinator of the Year. Richard joined the USACE NFRMP team in 2019 and supports the Louisiana Silver Jackets team. Within the first 18 months in this role, he strengthened relationships with key federal, state and local agencies and helped reenergize the Louisiana Silver Jackets team.

His collaborative approach resulted in the completion of seven interagency nonstructural FPMS efforts and initiation of two other nonstructural FPMS efforts. These efforts allow parish and state officials to prioritize sustainable flood

risk management options through natural and nature-based flood risk management strategies and enable advanced monitoring, mapping, and modeling across the state to reduce future flood damage.

Accolades from Richard's state partner note his outstanding commitment and dedication to the team which have enabled the Louisiana team to excel and progress.

2021 Silver Jackets Coordinator of the Year

Congratulations to Jaysson Funkhouser at the USACE Little Rock District for his selection as the 2021 Silver Jackets Coordinator of the Year. He supports the Arkansas Silver Jackets team. Funkhouser previously worked for USGS and was that agency's representative on the Arkansas Silver Jackets. He leveraged that experience in his new role as the USACE Silver Jackets coordinator to support this team and rally federal, state, and local agencies to unprecedented levels of coordination and collaboration.

Funkhouser also serves as the district manager for the FPMS, Planning Assistance to States, and Continuing Authorities programs. He effectively manages these programs and tailors them to meet individual stakeholder

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needs, which has led to great success for each program and for the Arkansas Silver Jackets team, which has grown under his leadership. The team has collaboratively completed several successful interagency efforts, including inundation mapping, levee risk assessments, high-water mark collection education, and risk communication efforts, among others.

His efforts have improved collaboration and coordination internally and with agency partners and was evident during the record 2019 flood on the Arkansas River. His knowledge of internal and interagency flood risk management resources served the state well, as he effectively served as the initial point of contact for information exchange with Silver Jackets team members about flood levels and other critical emergency needs.

Funkhouser leads, collaborates, and finds creative ways to assist in understanding, solving, and communicating flood risk management issues with a spirit of customer care.

Silver Jackets Teams of the Year

The Silver Jackets Team of the Year award recognizes an outstanding interagency team that exemplifies the goal of effective flood risk management by facilitating life-cycle risk management within the context of shared responsibility at all levels. The Silver Jackets Team of the Year is selected by a peer voting process, with members of state teams invited to vote for the nominated teams.

2020 Silver Jackets Team of the Year

Congratulations to the Puerto Rico Silver Jackets team members for receiving the 2020 Silver Jackets Team of the Year award.

The Puerto Rico Silver Jackets team was

formalized in May 2019 with a focus on enhancing community resilience and recovery from natural disasters, which at the time of its formation included the devastating impacts of Hurricane Maria. The team has active participation by a broad and diverse group of partners, including four commonwealth government agencies and 10 federal partners.

The Puerto Rico Silver Jackets team focuses on floodplain and coastal flooding issues and is working directly with the State Hazard Mitigation Office to support the new Hazard Mitigation Plan. Specific interagency collaborative efforts include an animated floodplain managers education and outreach video in English and Spanish, and a high-water mark project using Hurricane Maria historical high-water mark data for three municipalities.

The team has demonstrated its ability to build the relationships needed to become an effective team amidst the devastation wrought by Hurricane Maria. The team also exhibited an exceptional commitment and capacity to adapt and accomplish the team's mission and priorities, overcoming the additional complications of an earthquake and COVID-19 adding to hurricane recovery challenges.

2021 Silver Jackets Team of the Year

Congratulations to the members of the Nebraska Silver Jackets team, recipients of the 2021 Silver Jackets Team of the Year award.

The Nebraska Silver Jackets team was recognized as a model for the nation through its response and recovery efforts associated with 2019 flooding which was the largest federally declared disaster in the state's history. The state team assisted in the response and recovery to the disaster with engagement at the Joint Field Office and collection of high-water mark data. Due to the geographic extent of the flooding,

the team engaged local communities to submit data on an online portal, with the U.S. Geological Survey (USGS) then surveying the data points.

The team successfully coordinated and transitioned into recovery, tailoring products to support the changed environment. Three virtual post-flood workshops allowed partners to provide information on post-flood activities, grant opportunities, and agency authorities to support recovery. Additionally, the team collaborated to improve future flood risk information by updating data, including recent 2019 flood data, for numerous previous models and analyses.

The team also participated on the governor's task force, evaluating local community applications for recovery funding, prioritizing projects, and identifying other relevant funding sources, which maximized resources available to assist local communities.

The Nebraska Silver Jackets team's successful accomplishments are attributed to active participation by many dedicated team members and agencies, demonstrating shared responsibility in action.

I extend my warmest congratulations to each of our awardees. I also want to recognize the work of all the USACE flood risk managers, USACE Silver Jackets coordinators, state Silver Jackets teams and other flood risk management partners in building strong connections. Your collective efforts are building a network of relationships among the agencies, communities and individuals engaged in managing our nation's flood risks. By building strong connections, you are strengthening the ability of USACE and its partners to equip our nation's communities with the tools and information they need to better manage their flood risks. 🙌

Welcome to the new Hawaii Silver Jackets team

By Benjamin Reder, USACE, Honolulu District

Flood Risk Management community - some good news to share, sprinkled with aloha! In August 2021, Hawaii formally joined 53 other state or territory-led Silver Jackets teams across the nation and its territories. From a national perspective, this marks a major milestone, with Hawaii becoming the 50th state to form a Silver Jackets team.

The Hawaii Silver Jackets team will focus on interagency collaboration to reduce coastal flood risks throughout the state. The state Office of Planning and Sustainable Development's Coastal Zone Management Program is the state team lead for the effort. Participating agencies include the U.S. Army Corps of Engineers, the Federal Emergency Management Agency, the National Oceanic and Atmospheric Administration, the Hawaii Emergency Management Agency, the Department of Land and Natural Resources, and the University of Hawaii Sea Grant Program.

The Hawaii Silver Jackets team will operate within the state's [Hawaii Ocean Resources Management Plan \(ORMP\)](#) and its existing multi-agency framework.

"We welcome this partnership to address our state's significant risks from coastal flooding. Coastal hazards, including flooding from sea level rise, is listed as one of the ORMP's three main focus areas and the Silver Jackets team will play a key role in providing technical support and leveraging resources to best address this issue," said Justine Nihipali, Coastal Zone Management program manager and state lead.

The Hawaii team's overall focus is to develop a statewide integrated shoreline management strategy to address the compounding impacts to Hawaii's shorelines of coastal development, climate change and sea level rise,



Historic rainfall rerouted waterways on the north shore of Kaua'i in April 2018. From Hānalei to Ha'ena homes, farms and businesses experienced catastrophic damage. (Hawaii Ocean Resources Management Plan, 2020)

erosion, and other chronic coastal hazards. The team's current priorities include:

- Inventorying and analyzing critical infrastructure assets along the shoreline threatened by chronic and episodic coastal hazards and future sea level rise projections.
- Conducting vulnerability assessments and assessing options for protection, accommodation, and retreat of public infrastructure as sea levels rise.
- Identifying suitable geographic scale

for shoreline adaptation planning based on coastal processes.

- Determining barriers to proactive shoreline adaptation and actionable policy strategies to surmount them.
- Examining barriers to beach nourishment, including impacts to coastal habitats (offshore sand sources, sandy beach ecosystems), cost, and regulatory requirements (i.e., dewatering of sand).

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Waikiki. (Waikiki Beach Improvement Project. Hawaii Department of Land and Natural Resources, 2021)

- Studying the feasibility of utilizing “nature-based solutions” on Hawaii’s high-energy shorelines to manage and mitigate erosion.
- Studying the impacts of sea level rise projections on cultural and archeological resources, such as gathering sites, loko i’a (fishponds or fish traps), heiau (places of worship or shrines), and ki’i pohaku (petroglyphs).
- Incorporating a managed retreat or strategic relocation analysis in all action team projects/studies to help develop criteria for the adaptation strategy as identified in the February 2019 report published by the Hawaii Office of Planning Coastal Zone Management Program, [“Assessing the Feasibility and Implications of Managed Retreat Strategies for Vulnerable Coastal Areas in Hawaii.”](#)

Welcome to our Hawaii Silver Jackets partners! 🌴



The construction of a 95-foot-long sandbag groin stabilizes sand on the east end of Kūhiō Beach Park in Waikīkī. In the fore-ground, the foundation of the old Waikīkī Tavern (CA. 1930’s) is exposed, presenting a hazard to beachgoers. (Hawaii Ocean Resources Management Plan, 2020)

Inundation mapping and structural damage assessment in Illinois

By Chris Hawes and Kaileigh Scott, USACE Rock Island District

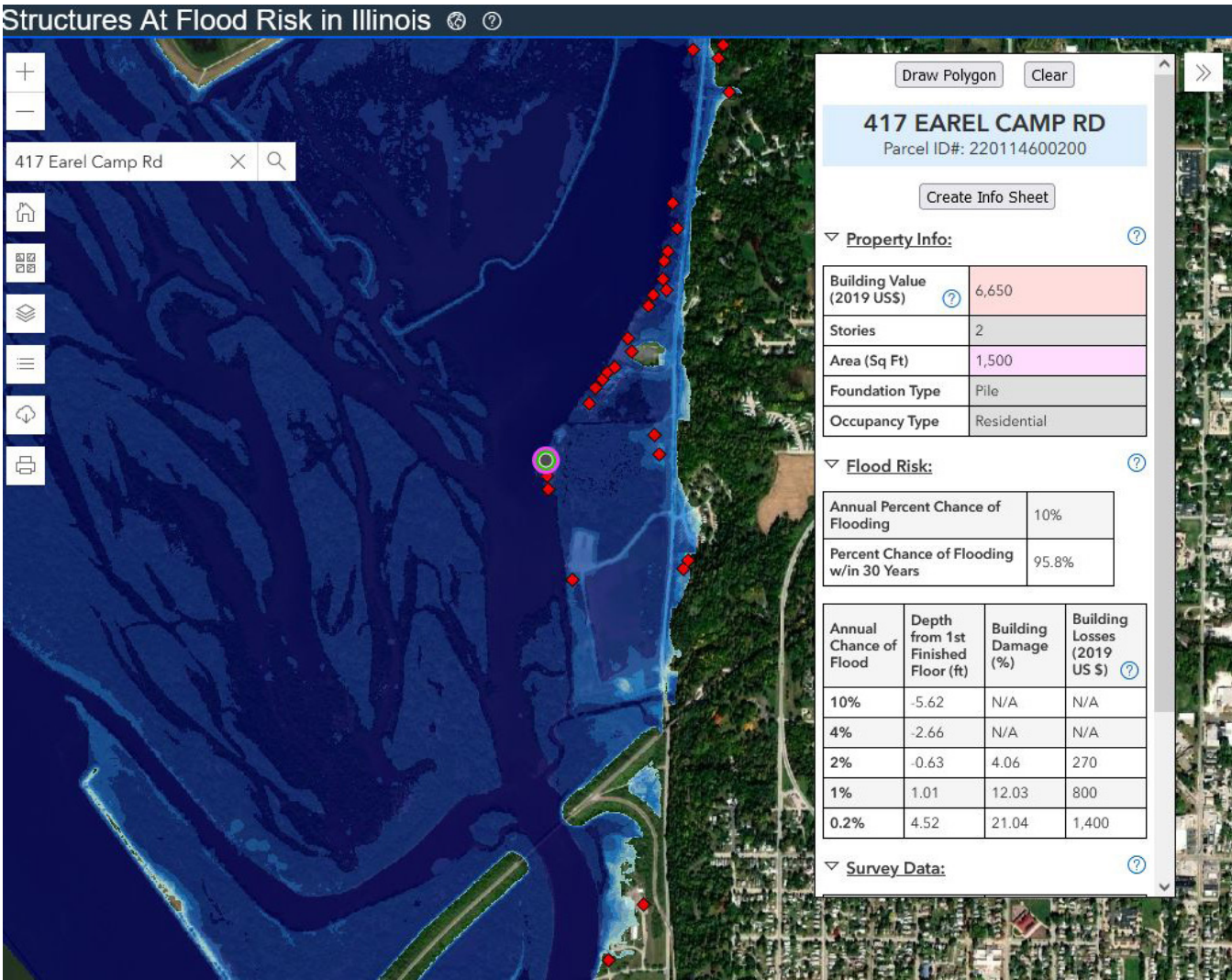


Image of available structure and flood risk data as displayed on the Structures at Flood Risk Interactive Viewer (SAFR). (SAFR, January 18, 2022)

To better plan for and mitigate flood risk, Illinois River communities need data computed and communicated at a structure-by-structure level. The Illinois Silver Jackets team is collaborating to bring together the resources and expertise of the Illinois Department of Natural Resources (IDNR), Illinois State Water Survey (ISWS), and three districts of the U.S. Army Corps of Engineers (USACE) to meet this need and develop inundation mapping and structural damage assessments.

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PRODUCTS AVAILABLE FOR EACH STRUCTURE

Structure information:

- Location of structure
- Occupancy class
- Building and content cost
- Square footage
- Foundation type
- Year built

Flood risk information:

- Flood depth
- Flood depth above first floor
- Damage percentages
- Estimated economic losses (building, contents, inventory)
- Percent annual chance of flooding
- Percent chance of flooding over a 30-year period

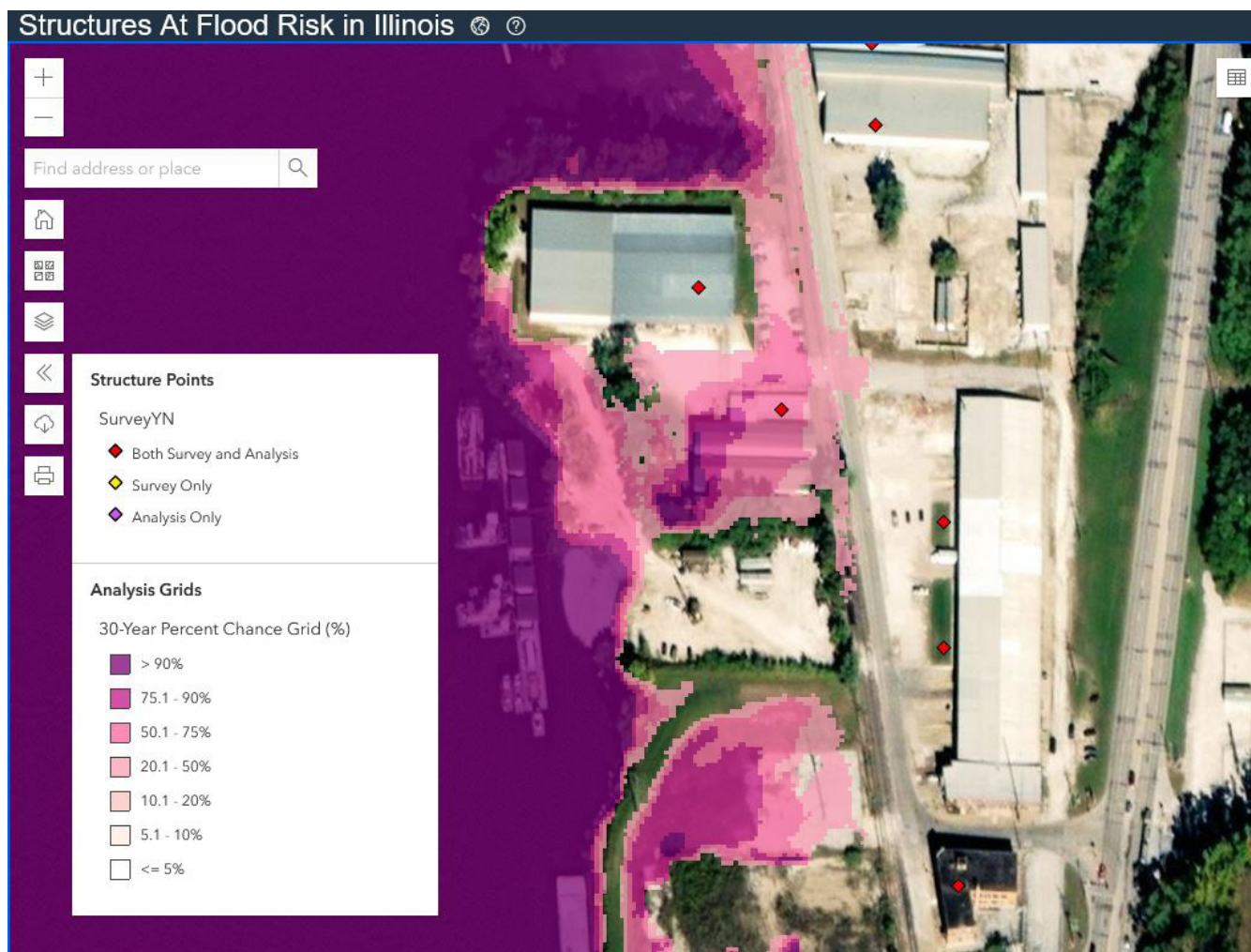


Image of percent chance of flooding over a 30-year period data as displayed on the Structures at Flood Risk Interactive Viewer (SAFR). (SAFR, January 18, 2022)

Two examples illustrating this multiagency approach were presented in the [August 2021 Silver Jackets webinar](#). Webinar presenters described work by the USACE Rock Island District, in collaboration with IDNR and ISWS, to complete inundation mapping and structural damage assessments for the Mississippi River (assessed 23 communities from East Dubuque to Quincy) and for an ongoing Illinois River effort (assessing 10 counties between LaSalle County and Cass/Schuyler counties). The USACE St. Louis District and Chicago District are also working with IDNR and ISWS on similar assessments.

A Multi-Agency Approach

This work is being conducted with a truly multi-agency approach. For all

structures of interest within the 500-year (0.2% annual chance) floodplain, localities provide parcel data and IDNR collects survey data. USACE then provides inundation data and computes the risk and damages to each structure. ISWS provides methods and standards throughout the process and hosts and shares the final products.

Products and Applications

The inundation mapping and structural damage assessment process produces structure and flood risk information specific to each structure surveyed. Once developed, the data is available in a pdf report or on the ISWS-developed Structures at Flood Risk (SAFR) interactive web viewer. While access is currently limited to community officials, the information can be utilized

at the individual and community levels to inform and support planning and mitigation efforts. Example applications include public outreach, response and recovery planning, justification of mitigation efforts, and determination of building code requirements.

This collaborative Silver Jackets effort supports a statewide effort in Illinois to build a database of individual structure risk assessments, as laid out in the 2018 Illinois Hazard Mitigation Plan. In 2021, the IDNR Office of Water Resources, in partnership with ISWS, won first place in FEMA's 2021 National Cooperative Technical Partner Mitigation Award for the statewide structural flood damage assessment work. ♦

FEMA Region 8 completes ArtWorks pilot project

‘Communicating Forms’

By Margaret Doherty, FEMA Region 8

FEMA plays a critical role in providing communities with reliable and accessible information about flood risk and mitigation. To connect with broader audiences, FEMA explores unique opportunities to grow its toolbox to improve communication. FEMA Region 8 recently launched ArtWorks, a new initiative that seeks to create art that tells a story, is eye-catching and interactive, while communicating the importance of flood risks and mitigation. The pilot project, “Community Forms,” converges public works, art, and recreation to rethink flood risk solutions and communication.

[RedLine Contemporary Art Center](#)

facilitated the initial call for art.

The selected project concept was “Community Forms,” which serves as a drainage system, art installation, skatepark, creative play space, and community gathering spot. The work is curated and produced by [Black Cube](#) [Nomadic Contemporary Art Museum](#) and designed by local artist [Matt Barton](#). “Community Forms” is an outdoor site-specific art installation in the Denver, Colorado, River North neighborhood. Located adjacent to the South Platte River, the sculptural intervention features abstract curvilinear forms that provide a social space for gathering and creative play—but also channels stormwater through the site.

[The Denver Post](#) reviewed the

[installation](#) and wrote, ““Community Forms” doesn’t just challenge skaters to consider who they are, where they fit in and what motivates them. It also asks everyone to think twice about the rigid definitions we have for community spaces. Our tendency is to label things clearly as sites for “work” or “play” or “commerce” or “transportation.” But this piece doesn’t allow that dismissive



Artist Matt Barton at Community Forms during the grand opening event. (FEMA, May 2021)




Artist Matt Barton and members of the FEMA Region 8 team attend the grand opening of Community Forms. (FEMA, May 2021)

categorization. It’s art but not art, a skatepark but not a skatepark. And, at the same time, it’s a drainage ditch that invites everyone to see their own personal place in the ecosystem.”

FEMA Region 8 contributed \$54,000 to the inventive and multifaceted project. The specific site location in Denver experiences large amounts of snowmelt, which has contributed to water becoming stagnant in the area. With

the installation of “Community Forms,” water will be redirected into bioswales — vegetated ditches that collect and filter runoff. While it functions as a drainage ditch, it also furthers FEMA’s goal of encouraging communities to think outside the box about what forms risk management can take.

The art brings community together to experience an innovation solution, improves long-term sustainability, and leads to greater public understanding of flood risk. The interpretive signs on the site share information on flood mitigation, watersheds, and the context and background for the artwork. As the first ArtWorks installation in Region 8, “Community Forms” is an important milestone in bringing programmatic and artistic expression of risk management to neighborhoods within the region.

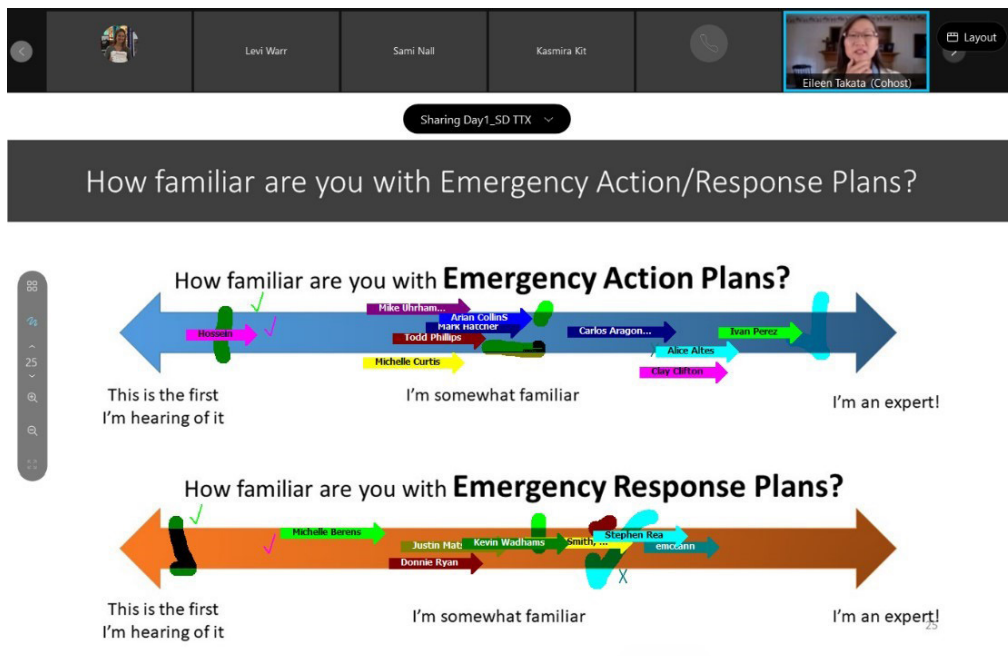
For more information, please contact Margaret Doherty at Margaret.doherty2@fema.dhs.gov. 

San Diego tabletop exercise

By Lindsay Floyd, USACE, Sacramento District

San Diego County in California has an impressive 54 dams in its jurisdiction, helping meet the needs of flood protection and water supply for its 1.4 million constituents, but also creating the potential for dam safety risks. In 2019, the Federal Emergency Management Agency (FEMA) kicked off a Collaborative Technical Assistance (CTA) series in San Diego. The CTA is an interactive program offered through FEMA to provide communities at risk of dam-related flooding a better understanding of their risk landscape and assistance with emergency preparedness. Spanning over a year, the program put on a series of meetings, webinars, and trainings related to dam safety. The capstone for this program was a dam safety tabletop exercise (TTX).

In true Silver Jackets fashion, Jose Lara, California Governor's Office of Emergency Services (CalOES) hazard mitigation planning chief, wanted to



Eileen Takata facilitates an ice breaker exercise during the virtual San Diego Dam Safety Table Top Exercise. (Screenshot by Lindsay Floyd, April 2021)

engage additional California Silver Jackets agencies and advocated for USACE to help put on the final TTX. With this emphasis in collaboration, California

Silver Jackets teammates Eileen Takata, Los Angeles District water resources

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Simulated damage to the Helix Water District Tower. Image taken from videos developed by the USACE Readiness Support Center to help participants visualize the damage described in the scenarios. (San Diego Dam Safety TTX Visual Companion, April 2021)



Simulated boils during a dam safety emergency. Image taken from videos developed by the USACE Readiness Support Center to help participants visualize the damage described in the scenarios. (San Diego Dam Safety TTX Visual Companion, April 2021)

planner/ public involvement specialist; Melissa Weymiller, Sacramento District Flood Risk Management Program project manager; and Lindsay Floyd, Sacramento District water resources planner, were brought onto the CTA team.

USACE collaborated closely with CTA members from FEMA, CalOES, the California Department of Water Resources, and local agencies in San Diego County to develop a chain of multi-hazard dam failure scenarios at the El Capitan Dam. The scenarios guided interagency communication and tested the local Emergency Action and Response plan. With help from Cynthia Phillips and the team at the USACE Readiness Support Center, realistic news-style videos and a situational pamphlet were created to elevate the presentation of the TTX.

The TTX was held over two half-day sessions, facilitated primarily by Takata. It was well attended with over 60 participants both days. The TTX utilized both plenary discussion and breakout groups in WebEx. Participants were asked their occupation in a

survey sent out prior to the TTX, and breakout rooms were formed by evenly distributing members based on their agency and role during an emergency response.

The rhythm of the TTX was repeated throughout the two days where the situational video (created by the USACE Readiness Support Center) was shown to the entire group, then participants separated into facilitated breakout rooms to discuss a series of three to four discussion questions, and finally everybody rejoined the main session and reported out on their room's discussions and "aha" moments. This setup and having a variety of people in each room received very positive feedback from participants and offered a chance to have in-depth conversations between agencies that don't communicate on a regular basis.

While virtual events like a TTX cannot replace the connections formed at an in-person event, the virtual platform was advantageous in bringing together participants who might not otherwise attend and helped connect the CTA and TTX planning team who had members

across the country. Best practices gleaned from hosting the virtual TTX include:

- Build redundancies with technology and facilitators. Always have a backup plan!
- Utilize the amazing work of the USACE Readiness Support Center.
- Use breakout rooms - they offer a valuable platform for in-depth discussion amongst participants.
- Allow ample time for participation.

FEMA has two future CTA efforts planned, one in Puerto Rico and another in Maryland. This was the first collaboration between USACE, a state Silver Jackets team, and FEMA's CTA program. The partnership went well, and the USACE National Flood Risk Management Program looks forward to future opportunities to leverage USACE expertise in support of state Silver Jackets teams and other communities nationwide in conjunction with the CTA program. ♦

Sacramento District employees receive national 2020 and 2019 Programmatic Planning Team of the Year awards for work on Flood After Fire Toolkit, Interagency Tribal Workshops

By Carolyn Gombert, USACE Sacramento District

Two Sacramento District teams received the U.S. Army Corps of Engineers (USACE) National Programmatic Planning Team of the Year Award for their contributions to the California Flood After Fire Toolkit in 2020 and the Interagency Tribal Workshops in 2019. Both harnessed the spirit of cooperation, collaboration and innovation to bring federal, state, tribal, and local entities together and to produce outcomes recognized at the national level.

Tireless work in 2020 by Sacramento District along with the California Silver Jackets team members resulted in a unique product: the [California Flood After Fire Toolkit](#). This resource is the first guide available to scientists and engineers that divides post-wildfire response into time-dependent phases or buckets.

After a fire begins, there are different kinds of support that may be required by a community to prepare for future post-fire floods and debris flows. A week after a fire has been contained, a community may need a rapid field assessment performed by an emergency response team. However, six months after containment, the community may need a model to simulate flood depths in areas severely impacted by the fire. The level of detail required for data collection in a rapid field assessment performed two weeks after containment varies significantly from the level of detail required for calibration of a flood model six months out. With the California Flood After Fire Toolkit in hand, engineers and scientists can obtain precise guidance on how and when to focus their time and resources.



The California Flood after Fire Toolkit outlines a four-phase approach to wildfire events. During phase 2, which occurs during the fire event but before a flood, emergency response teams such as California's Watershed Emergency Response Team (WERT) pictured above and the U.S. Forest Service's Burned Area Emergency Response (BAER) team provide a rapid assessment of an area's burn severity. Soil samples collected by WERT and BAER teams are used to finalize a soil burn severity (SBS) map that, in turn, informs modelling efforts during subsequent response phases. (CAL FIRE, 2018)

The cutting-edge time-bucket framework adopted by the California Flood After Fire Toolkit "...may well become a model for other states," said Dave Young, regional Burned Area Emergency Response (BAER) team manager for the U.S. Forest Service (USFS) and author of sections of the Toolkit. With other states experiencing megafires as well, the California Flood After Fire Toolkit is poised to become a useful tool for other states faced with managing increased flood and debris flow risks after a wildfire.

Bill Short, coordinator for California's Watershed Emergency Response (WERT) teams for the California Geological Survey (CGS), put it this way, "Most people don't understand the full effects of wildfires and how these effects connect to hydrologic and geologic processes." Short, who took the lead on developing the Toolkit's time buckets, emphasizes that our present-day wildfire regime requires response at the watershed, rather than local, scale. Thinking from this

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At the Interagency Tribal Workshop held in Blue Lake, California in August 2019, attendees from tribes, federal, state, and local agencies worked to strengthen collaboration on water resources planning and emergency preparedness. Above, Patricia Fontanet Rodriguez, a Water Resources Planner with the USACE's Sacramento District, speaks as a panelist during a session touching on long-term watershed-level planning. (Sacramento District Silver Jackets team, 2019)

30,000-foot view, Short split the wildfire timeline and response into four separate phases: (1) pre-fire (offseason), (2) fire event/pre-flood, (3) post-fire/pre-flood, and (4) post-fire and post-flood. These distinct demarcations promote seamless transition between different agencies. "Flood control districts can come in and expand on work performed during rapid emergency response assessments," said Pete Cafferata, manager of the Watershed Protection Program for the California Department of Forestry and Fire Protection (CAL FIRE). Similarly, communities with limited resources and staffing for emergency management and response benefit from BAER and WERT reports produced during phase 2, which provide a list of priority areas that require urgent attention.

Not only does the California Flood After Fire Toolkit provide guidance across different phases related to a wildfire event, it also addresses hazards across disciplines. As Young put it, "Fires don't respect administrative boundaries." When responding to a wildfire at the scale of a 500-square-mile watershed,

both hydrologic hazards such as floods as well as geologic hazards such as debris flows put communities at risk. Yet historically, expertise in water resources and expertise in geology have required different knowledge sets and skills. This can make work between disciplines and agencies an uphill battle. "Interdisciplinary work is difficult to organize and to stay on top of," said Jeremy Lancaster, who manages the Regional Geologic and Landslide Mapping Program at the CGS. Lancaster credits the Flood After Fire Toolkit with having a "de-siloing effect on different government entities."

In 2019, half a dozen Interagency Tribal Workshops were held across California and Nevada, focusing on water resources and emergency management programs and opportunities available to tribes. Each workshop included 20 to over 30 participants and provided a fruitful ground for strengthening relationships. Workshop participants included tribal officials and members, California and Nevada Silver Jackets team members, representatives from federal, state,

and local agencies and members of the academic community and non-governmental organizations.

Development of the Interagency Tribal Workshops stemmed from recognition of the disconnect between the agencies that provide emergency support during floods and the tribes that may benefit from such assistance. California and Nevada include many tribal reservations that are subject to flood risk. Workshop presentations by tribes highlighted different needs and perspectives. Likewise, agency representatives presented information on available planning and recovery assistance. The workshops encouraged communication, with the resulting exchange between tribes and agencies ultimately strengthening tribal-agency relationships before a flood or emergency.

The USACE National Programmatic Planning Team recognition of the Sacramento District's support of these Silver Jackets team efforts gives a nod to the tireless work required to recognize disconnects in the risk reduction community and to respond with a commitment to building relationships and fostering buy-in across agencies.

The Interagency Tribal Workshops created a space that supported an exchange between tribal communities, who shared their flood-risk needs, and the agency partners that were able to provide relevant support.

The development of the California Flood After Fire Toolkit cultivated and leveraged interdisciplinary and interagency collaboration to produce a comprehensive guide aimed at supporting communities recovering from wildfires.

Both efforts required interagency collaboration that emphasized building a strong foundation between agencies before an emergency occurs. As a risk management community, we can all channel their spirit moving forward. ♦

FEMA launches full application of National Risk Index

By Casey Zuzak, FEMA

FEMA recently announced the full application launch of the National Risk Index, an online mapping application that provides a holistic view of community risk through baseline relative risk scores.

The Risk Index measures a community's risk for 18 natural hazards, in addition to resilience, social vulnerability and expected annual loss. For a hazard to be included, it had to be profiled by at least 25 of the state hazard mitigation plans or considered a regionally significant hazard, such as a tsunami or avalanche.


The Risk Index helps users understand natural hazard risk and supports informed risk reduction decisions for mitigation planning and emergency management. By providing standardized risk data and an overview of multiple risk factors, this interactive mapping and analysis tool can help communities, especially those with limited flood

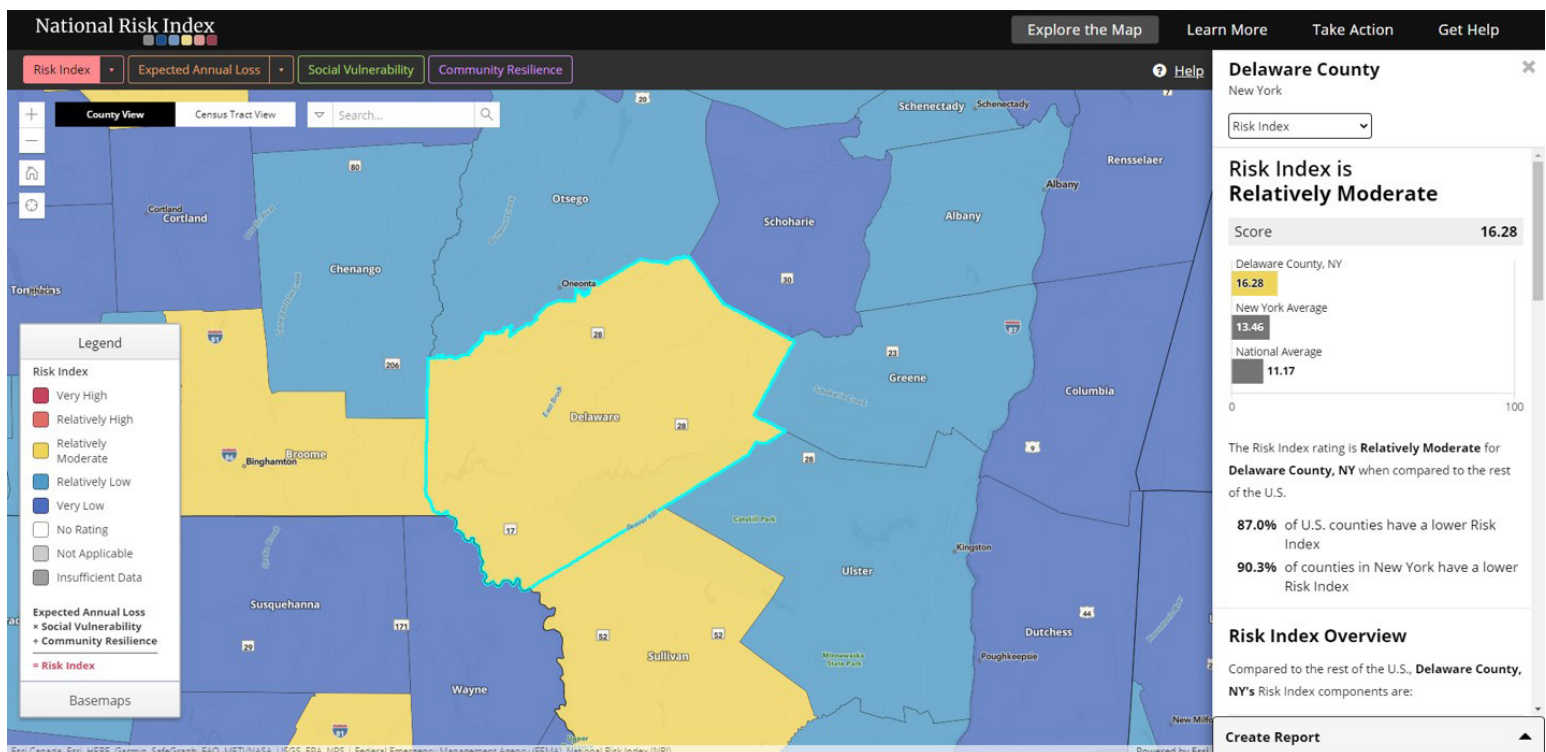
mapping and risk assessment capabilities, prepare for natural hazards.

Climate change is a top priority for this administration and FEMA. The National Risk Index helps to advance the conversation on climate change and emergency response strategies by helping communities enhance disaster resiliency.

The tool was originally released in November 2020 at a limited capacity. Now, fully available for use by state, local, tribal and territorial partners, the National Risk Index includes the ability to generate more customized analyses and reports, including community risk profiles and risk comparison reports for any county or Census tract. In addition, several data updates and access to more information about the development of the National Risk Index are also available.

The National Risk Index based ratings on data from the best available resources from 2014 through 2019. Routine updates are expected to keep ratings current.

The tool is free and easy to use, and data from the site can be downloaded. Visit [FEMA's National Risk Index webpage](#) to learn more about the data and the natural hazards that may affect your community. 



A screenshot of the National Risk Index application. ([National Risk Index map](#), 2021)

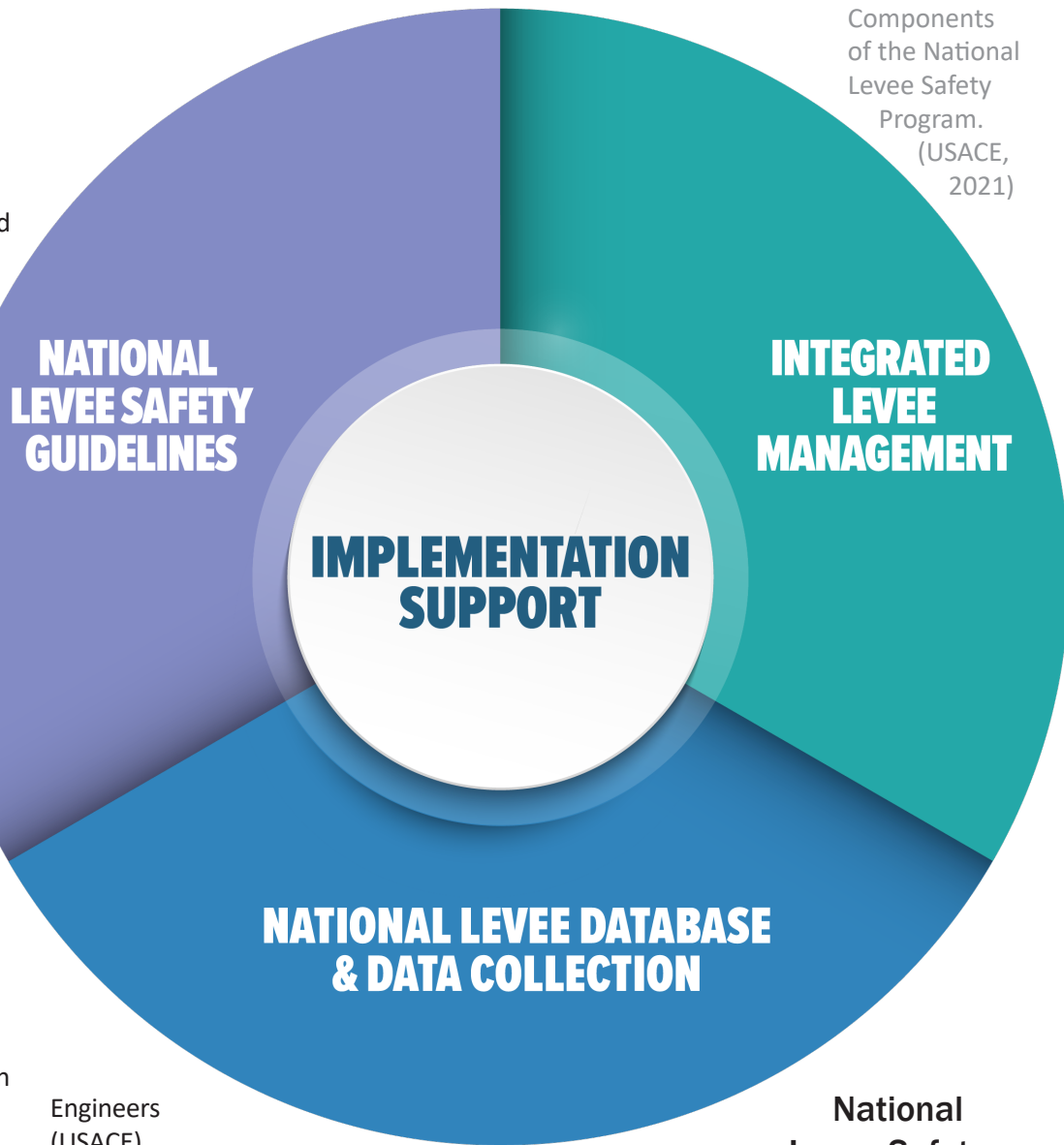
Launch of the National Levee Safety Program

By Jennifer Laux, USACE Levee Safety Center, Vicksburg District

Levees play an important role in reducing flood risk to millions of people and trillions of dollars' worth of infrastructure throughout the United States. Responsibility for levee safety is currently distributed across all levels of government (federal, state, and local, and in some cases tribal). While agencies, tribes, and levee owners/operators work diligently to maintain levees with limited resources, they face challenges, including:

- Much of the levee infrastructure throughout the country is decades old and was built without the benefit of modern engineering practices.
- Levees are designed, constructed, and managed by various entities using different processes and standards.
- Development continues to intensify behind levees, putting more reliance on the levees' ability to perform and the need to consider evacuation and land-use planning for managing flood risk.
- Much of the public continues to remain unaware of their flood risks or actions they can take to reduce those risks.

This lack of a national integrated levee management approach, along with climate change impacts (i.e., increased storm intensity, widespread flooding, displaced communities and vulnerable populations, and increased cost to rebuild flood-damaged infrastructure), has highlighted the need to design solutions for reducing suffering from disasters and improving the resiliency of communities behind levees. One program that will strive to accomplish this is the National Levee Safety Program (pursuant to Title 33 Chapter 46 of the U.S. Code), a joint effort led by the U.S. Army Corps of



Engineers (USACE) and the Federal Emergency Management Agency (FEMA).

USACE and FEMA have been working to outline an approach that involves extensive stakeholder engagement to develop the long-term foundational components for the National Levee Safety Program. Those main components include National Levee Safety Guidelines, Integrated Levee Management, National Levee Database and Data Collection, and Implementation Support.

National Levee Safety Guidelines

These voluntary best practices will serve as an up-to-date resource designed to help achieve nationwide consistency in improving the reliability of levees and resiliency of communities behind levees throughout the United States.

The guidelines will be developed with extensive stakeholder input and are intended to be used by a broad audience including regulators, levee owners/operators, design and construction

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National Levee Safety Program Stakeholder Engagement Schedule (USACE, 2021)

professionals, emergency management professionals, state/tribal/local governments, and floodplain managers. It is anticipated that potential topics in the guidelines will range from basic concepts and terminology to consistent approaches for the life cycle of a levee. Strategies to reduce flooding impacts to people, property, and the environment, to include risk management and risk communication, are also initial ideas to be included in the guidelines.

Integrated Levee Management

This component focuses on several activities aimed at improving the way different levee-related authorities, at various levels of government, can be integrated and coordinated to be complementary and efficient, including:

- Developing scalable oversight and management activities for standing up formal levee safety programs with a primary focus on states and tribes serving as the main integrators for levee-related activities and authorities within or adjacent to (when necessary) their geographic boundaries.
- Identifying some key programs, for example the National Dam Safety Program, in which processes and requirements can be aligned with the National Levee Safety Program to reduce redundancies.

National Levee Database & Data Collection

This component focuses on improving

data quality and data collection methods along with functionality of the existing National Levee Database with the goal of creating a nationwide resource that can be used by levee owners and federal, state, tribal, and local governments to store and manage their own levee data.

An improved National Levee Database (1) will support a common understanding of levee benefits and risks across a wide range of users; (2) can be combined with other datasets to help users who are responsible for overseeing/managing levees with prioritizing flood risk management decisions and activities; (3) can be compatible with locally developed inspection and data collection tools, and (4) can assist with flood risk communication efforts.

Implementation Support

This component focuses on identifying and implementing types of assistance, such as financial, technical, or streamlined processes, to motivate and support participation in the National Levee Safety Program. Elements of this component are tied closely with Integrated Levee Management, therefore, feedback provided on Integrated Levee Management at stakeholder engagement meetings will help guide the path forward for Implementation Support.

Stakeholder Engagement

Tying these components together to create a successful and sustainable National Levee Safety Program will require robust stakeholder engagement. The current stakeholder engagement

strategy will combine broad stakeholder feedback at various times over the next two to three years through in-person meetings and webinars around the country with targeted feedback from tribes and advisory groups (federal and non-federal). Phase 1 began in January 2022 with nine virtual stakeholder workshops scheduled for January and February. Those who are responsible for, are impacted by, or have an interest in levees and flood risk management are encouraged to participate in one of these virtual workshops to provide feedback on the program and its major components.

In addition to the virtual workshops, USACE is now accepting applications from stakeholders to serve as a representative on the new Committee on Levee Safety. The purpose of this non-federal stakeholder group is to provide advice to USACE and FEMA on a broad range of issues, topics and alternatives related to development of the National Levee Safety Program.

The Committee will be composed of 14 voting members, appointed by the assistant secretary of the army for civil works, with expertise in levee safety. Members will include eight representatives of state levee safety agencies, two local or regional government representatives, two private sector representatives, and two tribal representatives. USACE and FEMA will serve as non-voting members on the Committee.

For more information about the National Levee Safety Program, including registering for a virtual stakeholder workshop, signing up for program updates, or applying for membership on the Committee on Levee Safety, visit www.leveesafety.org. Questions about the program or the Committee can be sent to hq-leveesafety@usace.army.mil. Complete applications for the Committee on Levee Safety must be submitted on or before March 22, 2022.





Round the National Silver Jackets table

By Ellen Berggren, USACE Silver Jackets Program Manager

The National Silver Jackets Team is composed of 13 federal agencies that meet quarterly. “Round the Table” is a standing agenda item at National Team meetings, with each agency sharing new tools, publications, initiatives, information exchange and learning opportunities. Contact the National Team at IWR.SilverJackets@usace.army.mil.

RECORDED WEBINARS

National Silver Jackets member agencies frequently present at monthly [Silver Jackets webinars](#). Recent recorded presentations posted on the Silver Jackets webpage include:

- HUD - Community Resilience Toolkit (July 2021).
- USACE - National Inventory of Dams Update and Public Release of USACE Inundation Maps (October 2021).
- USACE – Silver Jackets Teams of the Year Share Lessons of Success (December 2021).

EDA:

Sixty finalists were announced for Phase 1 of the “[Build Back Better Regional Challenge](#).” Finalists will compete for Phase 2 of the Challenge, which will award 20-30 regional coalitions up to \$100 million to implement three to eight projects that support the industry sector. The Build Back Better Challenge is the marquee of EDA’s [American Rescue Plan](#) programs that aim to boost economic pandemic recovery and rebuild American communities.

EPA:

[Stormwater Infrastructure Funding and Equity](#) – This webinar, recorded in July 2021, highlights equity considerations in stormwater infrastructure funding and financing, including three case studies about successful green infrastructure projects and the associated funding and financing mechanisms.

[Navigating Federal Funding for Green Infrastructure and Nature-Based Solutions](#) – This recorded webinar, offered in November 2021, features members of the Green Infrastructure Federal Collaborative discussing funding and technical assistance opportunities that advance the implementation of green infrastructure and nature-based solutions.

National Silver Jackets Team Participating Agencies

- Economic Development Administration (EDA)
- Environmental Protection Agency (EPA)
- Federal Emergency Management Agency (FEMA)
- Federal Highway Administration (FHWA)
- National Aeronautics & Space Administration (NASA)
- National Park Service (NPS)
- Natural Resources and Conservation Service (NRCS)
- NOAA National Weather Service (NOAA NWS)
- NOAA Office of Coastal Management (NOAA OCM)
- U.S. Army Corps of Engineers (USACE)
- U.S. Fish and Wildlife Service (USFWS)
- U.S. Geological Survey (USGS)
- U.S. Housing and Urban Development (HUD)

FEMA:

FEMA has released its [2022-26 Strategic Plan](#) outlining a vision and three goals designed to address key challenges the agency faces.

- The December 2021 [FEMA Resources for Climate Resilience](#) document describes available resources communities can use to plan for, respond to, recover from, and mitigate against adverse impacts of climate change.
- The [Guides to Expanding Mitigation](#) series highlights innovative and emerging partnerships for mitigation. The

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booklets show how communities can better support hazard mitigation projects and planning by engaging other sectors, thereby supporting FEMA's goal of building a culture of preparedness as part of the agency's strategic plan.

- The [Addressing Future Climate, Population and Land Use Changes through Hazard Mitigation Planning](#) recorded webinar provides ideas, resources, and examples of how to integrate future conditions information into your hazard mitigation planning process to increase overall resilience.
- [IS-350 – Mitigation Planning for Tribal Communities](#) - New on-line interactive web training available to provide tribal officials, planners, emergency managers, and other partners with the information necessary to prepare and implement a tribal hazard mitigation plan.
- [Where & How We Build: Using Land Use and Building Codes to Increase Resilience](#) - This Aug. 13, 2021, recorded webinar outlines the essential role that land-use planning and building codes play in reducing disaster risk.
- [2021 Building Resilient Infrastructure and Communities \(BRIC\) and Flood Mitigation Assistance \(FMA\) webinar series](#) - This recorded webinar series provides technical information, best practices, tools, and resources for these grant programs.

USACE

- [Bridging the Equity Gap: Flood Resilience for the Whole Community](#) – Organized and moderated by the San Francisco District and the National Flood Risk Management Program team, this webinar series features speakers and panelists who speak to the challenges facing frontline communities and empowers audiences with meaningful actions and tools for building social equity and resilience across the nation. The recorded webinar series was initiated in August 2021 and will feature a monthly webinar over a one-year period.
- [International Guidelines on Natural and Nature-Based Features for Flood Risk Management](#) – This effort was initiated and led by the USACE Engineering with Nature team and is a product of a large-scale collaboration with key practice leaders from around the world. The document consists of 20 chapters organized into three sections – overarching themes, coastal features, and fluvial features.
- The new [National Inventory of Dams](#) is publicly available and includes inundation maps for 150 USACE dams. These inundation maps are a planning resource to support actions before dam-related floods and do not show real-time information of where water is during an emergency. ♦

BULLETIN BOARD

The U.S. Army Corps of Engineers (USACE) is updating its Engineer Regulation (ER) 1110-2-1156, "Safety of Dams," which establishes the principles and policies USACE follows to carry out a risk-informed dam safety program. ER 1110-2-1156 was last published in 2014.

The updates currently underway focus on establishing the program framework. Updates will address "What," "Who" and some "Why" questions, such as: "What" the program purpose is, "Who" is responsible for conducting dam safety practices and "Why" particular program practices are needed. Questions about "How" to implement the ER requirements will be addressed in supporting documents, including existing engineer manuals, engineer pamphlets, or standards of practice.

The ER 1110-2-1156 revision will be broken into four parts with the first being overall Governance and Program Management requirements. All remaining program requirements will be organized into the components of the Risk Framework - Risk Assessment, Risk Management, and Risk Communication, as illustrated in Figure 1.

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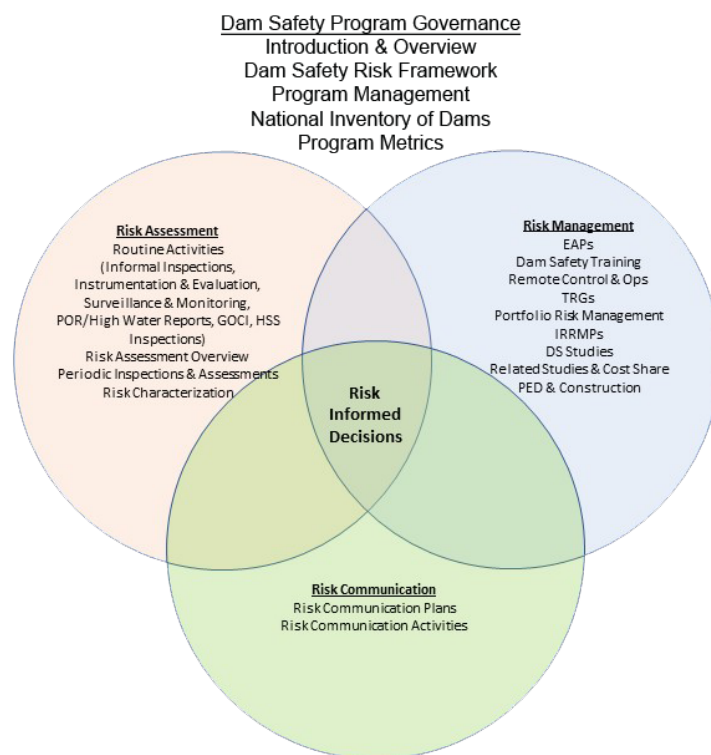



Figure 1: Dam Safety Risk Framework. (D. Wade Anderson, 2021)

The ER 1110-2-1156 update will include a rigorous review process. The current review plan includes an agency technical review by various USACE communities of practice, the USACE Dam Safety Steering Committee and Dam Senior Oversight Group, agency-wide review, the Interagency Committee on Dams, and a public review opportunity through the Federal Register.

The initial reviews are scheduled to occur in fiscal 2022 with follow-on reviews in fiscal 2023 and finalization and publishing in early fiscal 2024. (Thank you to D. Wade Anderson, P.E., HQUSACE Dam Safety Program Manager, for providing this update.)

A new FEMA toolkit helps communities design natural hazard retrofit programs. Many communities want to implement programs to help residents protect their buildings and homes from natural disasters, but from inventories to outreach, it's hard to know where to start. FEMA Region 9 created the [Natural Hazard Retrofit Program Toolkit](#) to help local jurisdictions shape retrofit programs tailored to their own community's needs and hazards. FEMA listened to local practitioners across the United States who have established retrofit programs and incorporated their insights, best practices and examples in the toolkit. So, whether your community wants to create a program for seismic events, hurricanes, flooding, or other risks, the Natural Hazard Retrofit Program Toolkit can help you every step of the way.

[“On Safer Ground: Floodplain Buyouts And Community Resilience,”](#) a 2021 research report by the Urban Land Institute (ULI), explores the use of buyouts as a strategy for local governments to reduce flood risk. “On Safer Ground” is the first publication in the Climate Risk and Land Use series, which highlights land-use tools that can help address climate risk. The report draws on interviews from more than 25 real estate developers, designers, land-use policymakers, nonprofit leaders, community leaders, and climate adaptation experts. It examines the consequences of buyouts for the real estate sector, describes opportunities for public-private partnerships, and provides examples of buyout program innovations. It describes the buyout process, discusses land-use implications, and outlines best practices for buyout programs. “On Safer Ground” examines the opportunities and challenges offered by buyout programs as a tool for improving community resilience, while also providing green infrastructure and open space.

The nature conservancy has released [“Promoting Nature-Based Hazard Mitigation Through FEMA Mitigation Grants,”](#) a guidebook for implementing nature-based solutions to mitigate risk associated with flooding and wildfires. The guidebook discusses considerations involved in developing nature-based solutions to meet the unique needs of a community. It also explores opportunities for using the FEMA Hazard Mitigation Assistance (HMA) grant program as a source of funding support for nature-based hazard mitigation and climate change resilience efforts. The guidebook explains the FEMA HMA grant requirements and methods of evaluating benefits. It also outlines specific considerations potential applicants should address, such as project scale, stakeholders, and benefits, to strengthen their application for HMA funds to support nature-based projects. 

UPCOMING EVENTS

Workshops and Conferences

NOTE: Some workshops and conference schedules have been rescheduled or shifted to online due to the pandemic. Some have reduced their registration fees. Please confirm details with conference organizers regarding the latest status.

[35th Annual Conference Michigan Stormwater Floodplain Association](#). March 2-4, 2022. Midland, MI.

[Illinois Association for Floodplain and Stormwater Management 2022 Conference](#). March 8, 2022. Normal, IL.

[Texas Floodplain Management Association \(TFMA\) 2022 Annual Meeting](#). March 8-11, 2022. Houston, TX.

[Operation and Maintenance of Stormwater Control Measures 2022](#). March 13-16, 2022. Wilmington, NC.

[National Flood Association \(NFA\) Annual Conference](#). March 27-29, 2022. Scottsdale, AZ.

[RIMS \(The Risk Management Society\) 2022](#). April 10-13, 2022. San Francisco, CA.

[U.S. Society on Dams 2022 Annual Conference & Exhibition](#). April 11-14, 2022. San Diego, CA.

[25th Anniversary National Mitigation and Ecosystem Banking Conference](#). May 2-6, 2022. Boise, ID.

[Arizona Floodplain Management Association Spring 2022 Conference](#). May 4-6, 2022. Tucson, AZ.

[35th Conference on Hurricanes and Tropical Meteorology](#). May 9-13, 2022. New Orleans, LA.

[2022 ASFPM Conference](#). May 15-19, 2022. Orlando, FL.

[Stormwater Summit 2022](#). June 27-29, 2022. Minneapolis, MN.

[National Association of Flood and Stormwater Management Agencies Conference](#). Aug. 8-11, 2022. Parks City, UT.

[Texas Floodplain Management Association \(TFMA\) 2022 Annual Summit](#). Aug. 22-23, 2022. Lost Pines, TX.

[Kansas Association for Floodplain Management](#). Aug. 31-Sept. 1, 2022. Lawrence, KS.

[Indiana Association for Floodplain and Stormwater Management 2022 Annual Conference](#). Sept. 14-16, 2022. South Bend, IN.

[Oklahoma Floodplain Managers Association Annual Conference 2022](#). Sept. 18-22, 2022. Durant, OK.

[Arizona Floodplain Management Association Fall 2022 Conference](#). Oct. 26-28, 2022. Tempe, AZ.

[Texas Floodplain Management Association \(TFMA\) 2023 Annual Meeting](#). March 7-10, 2023. Houston, TX.

[2023 ASFPM 47th Annual Conference](#). May 7-11, 2023. Raleigh, NC.

[Indiana Association for Floodplain and Stormwater Management 2023 Annual Conference](#). Sept. 13-15, 2023. Florence, IN.

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UPCOMING EVENTS

Courses, Webinars and Resources

[ASFPM On-Demand Learning](#) provides online courses pertinent to floodplain management and approved for continuing education credits (CECs) for Certified Floodplain Managers. New courses are regularly added.

[ASFPM Online University with Vector Solutions](#) provides over 150 online courses preapproved for Continuing Education Credits for Certified Floodplain Managers. New classes are added on a regular basis.

[Natural Disaster Training Preparedness Center \(NDPTC\) at the University of Hawaii](#) offers training and educational programs related to homeland security and disaster management, with a specific focus on natural hazards, coastal communities, and the special needs and opportunities of islands and territories. The NDPTC actively engages internally with FEMA and the University of Hawaii, as well as with [external partners](#) across the region to integrate the delivery of its trainings, products and services.

[Natural Hazards Center CONVERGE Training Modules](#)

- Social Vulnerability and Disasters.
- Disaster Mental Health.
- Cultural Competence in Hazards and Disaster Research.
- Conducting Emotionally Challenging Research.
- Institutional Review Board Procedures and Extreme Events Research.

[ASFPM Webinar Series](#) addresses cutting-edge issues, techniques and best practices in floodplain management.

NOAA Office of Coastal Management Training Resources:

- [How to Facilitate a Virtual Meeting](#). Self-guided online training.
- [Techniques for Facilitating Virtual Meetings](#). Reference guide.
- [Virtual Meeting Engagement](#). Reference guide.
- [Coastal Zone Management Act 101](#). Self-guided training resource.
- [Green Infrastructure Effectiveness Database](#). Self-guided training resource.
- [How to Map Open Space for CRS Credit](#). Self-guided training resource.
- [Risk Communication Essentials for More Effective Conversations](#). Self-guided training resource.
- [A Community Works Together to Restore the Floodplain and Reduce Damages](#). Case study.
- [Coastal Community Resilience Indicators and Rating Systems](#). Report.

Many more resources are available at [NOAA OCM DigitalCoast/Training](#).

[FEMA Virtual K0705 Fundamentals of Grants Management courses](#) are intended to assist FEMA grant recipients strengthen grant management skills.

[FEMA Emergency Management Institute](#) full course schedule posted. Admissions: 301-447-1000, netcadmissions@fema.dhs.gov.

[ASFPM Webinar Series](#) addresses cutting-edge issues, techniques and best practices in floodplain management.

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UPCOMING EVENTS

[Natural Hazards Center Making Mitigation Work Webinars](#) feature innovative speakers and highlight recent progress in mitigation policy, practice and research. A schedule of upcoming webinars is listed on the [main series page](#). An archive of past webinars is available [here](#).

[Community Rating System Training Webinars](#) include past recorded webinars and a schedule of upcoming live webinars.

[FEMA - Where & How We Build: Using Land Use and Building Codes to Increase Resilience](#) is a recorded webinar describing the role that land-use planning and building codes play in reducing disaster risk.

[EPA – Leading Edge Stormwater Financing webinars](#) is a recorded webinar series on innovative stormwater financing.

FEMA Region 2 [Preparedness and Resilience Webinars](#) addressing issues related to preparedness, response, mitigation and resiliency.

[CTP Information Exchange](#) conducts quarterly webinars supporting the Cooperating Technical Partners (CTP) Program's approach to creating partnerships between FEMA and participating NFIP communities, regional agencies, state agencies, tribes and universities to become active participants in the FEMA flood hazard mapping program. Webinars are produced quarterly and are free to attend. This site provides access to recordings of previous webinars.

[Silver Jackets Webinars](#) offers access to recordings of past Silver Jackets webinars, 2011 through 2021.

[Outreach of ASFPM Conference Sessions](#) provide online access to session presentations from the past ASFPM Annual National Conference. Includes presentations on flood insurance and floodplain management-related topics.

[American Planning Association Knowledge Center](#) provides an online repository of planning resources relating to a variety of topics, including:

- [Disaster Recovery](#).
- [Hazard Planning](#).

[Adapting Risk Communications to Create Equitable Mitigation Strategies](#). This recording of an ASFPM presentation provides case studies informing effective strategies for communicating and partnering with socially, politically and economically vulnerable communities.

[Building Alliances for Equitable Resilience](#). This resource from FEMA and the Resilient Nation Partnership Network provides guidance, perspectives, personal stories and resources intended to support community efforts to make equitable and resilient practices part of their day-to-day activities.

[International Guidelines on Natural and Nature-Based Features for Flood Risk Management](#) provide practitioners with the best available information concerning the conceptualization, planning, design, engineering, construction, and maintenance of Natural and Nature-Based Features for Flood Risk Management to support resilience and flood risk reduction for coastlines, bays, and estuaries, as well as river and freshwater systems.

[Natural Infrastructure Opportunities Tool](#) is a public-facing online tool that assists with identifying natural infrastructure and beneficial use opportunities through the use of map-based visualizations of environmental, geomorphic, and sediment conditions, as well as upcoming USACE projects, and an interface for users to add their resource needs and resource availability.

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UPCOMING EVENTS

[ASDSO Dam Safety 2021 On-Demand](#) platform is available through April 1, 2022. This platform provides access to sessions and presentations from the Dam Safety 2021 conference and the virtual conference workshop “Getting a Handle on Communicating Risks and Benefits of Dams.”

[FEMA – Green Infrastructure Webpage](#) explains the use of nature-based solutions and provides “get started” resources, including types of nature-based practices, funding and planning resources and other resources.

[FEMA - Long-Term Community Resilience Exercise Guide](#) provides a “one-stop-shop” for any jurisdiction or organization looking to conduct a climate-focused exercise.

[NOAA’s new U.S. Climate Normals](#) provides an analysis of U.S. weather of the past three decades by calculating average values for temperature, rainfall and other conditions for the period 1991-2020. These updated calculations give the public, weather forecasters and businesses a standard way to compare today’s conditions to 30-year averages.

[FEMA - New Building Science Resource Library](#) contains all of FEMA’s hazard-specific guidance that focuses on creating disaster-resistance communities.

[NOAA - Redesigned Climate Website](#) offers articles about climate science and describes how climate conditions are changing with maps, graphics, features, and videos, as well as classroom-ready teaching resources matched to grade levels and science learning standards.

[USDA - Disaster Resilience and Recovery Resources – A Guide for Rural Communities](#) is a resource guide released as part of National Preparedness Month to help rural communities seeking disaster resiliency and recovery assistance.

[American Flood Coalition - Adaptation for All: How to Build Flood Resilience for Communities of Every Size](#) is a recorded presentation and guide highlighting 26 approaches broken down by cost, benefits, and implementation considerations, to make it easier for communities of any size to evaluate how those approaches can fit into their flood resilience strategies.

[ASFPM Conference - Bootstrapping Federal Grants on your Way to Green Resilience](#) is a recorded ASFPM Conference presentation featuring best practices in planning – and funding – nature-based infrastructure and describing how to develop compelling and achievable green infrastructure proposals that improve the likelihood of federal funding.

[HUD Disaster Recovery Tools and Templates Library](#) is specifically designed for Community Development Block Grant Disaster Recovery and CDBG Mitigation grantees and provides resources created by technical assistance providers that can help prepare for, design, and implement programs.

[USACE Engineering with Nature Podcast, Season 3, Episode 10 “The Next Generation Makes the Future of EWN Even Brighter”](#) highlights groundbreaking work of by three PhD students relating to natural infrastructure.

[USACE Power of ERDC Podcast, Episode 10 “DamBot”](#) describes the use of DamBot to enable better and safer dam inspections by allowing inspectors a first look inside dam outlet works without exposing human operators to unknown conditions and collecting high-resolution data that allows for more detailed inspections than currently available.

[FEMA Podcast](#) covers topics relating to the agency itself, innovation in the field of emergency management, and stories about communities and individuals recovering after disasters. 🏠

FRM BUZZ

NEWSLETTER

Reducing Flood Risk: Many Partners, One Team



USACE Flood Risk Management Program:

<https://www.iwr.usace.army.mil/Missions/Flood-Risk-Management/Flood-Risk-Management-Program>



Silver Jackets Program:

<http://silverjackets.nfrmp.us>

FRM BUZZ Statements of Need: Submitting "Statement of Need" is the first step in the process of a concept becoming a requirement for research and development. If USACE district personnel have problems or situations they feel should be addressed by research, the Flood Risk Management Gateway, <https://operations.erdc.dren.mil/ideas/index.cfm?CoP=Flood>, is the place to submit these research Statements of Need (SoNs).

You can find past issues of this newsletter at <https://operations.erdc.dren.mil/flood.cfm>. Both the [Silver Jackets website](#) and the [Flood Risk Management Gateway](#) have weblinks, news items and presentations of interest. Check them out!

This newsletter is a product for and by the Flood Risk Management Community. The views and opinions expressed in this unofficial publication are not necessarily those of the U.S. Army Corps of Engineers or the Department of the Army.

If you would like to submit an article or an idea for an article for the next edition of the newsletter, or if you have any comments or questions about articles in this edition, please email Stephanie.N.Bray@usace.army.mil or Ellen.M.Berggren@usace.army.mil.



**US Army Corps
of Engineers**