



# Flood News for Michigan Floodplain Managers

A Newsletter of the  
Water Resources Division  
Michigan Department of Environmental Quality  
[www.michigan.gov/deq](http://www.michigan.gov/deq)  
Environmental Assistance Center 800-662-9278

C. Heidi Grether, Director

2017 First Edition

Editor: Les Thomas  
Articles are by the Editor unless noted otherwise.

For questions, comments, or information, contact:

Les Thomas  
MDEQ  
Water Resources Division  
P.O. Box 30458  
Lansing, MI 48909-7958  
Telephone: 517-284-5489  
Fax: 517-241-9003  
e-mail: [thomasl@michigan.gov](mailto:thomasl@michigan.gov)

The MDEQ will not discriminate against any individual or group on the basis of race, sex, religion, age, national origin, color, marital status, disability, or political beliefs. Questions or concerns should be directed to:

Quality of Life Human Services  
P.O. Box 30473  
Lansing, MI 48909

This newsletter is supported by funding under a Cooperative Agreement with the Federal Emergency Management Agency. The substance and findings are dedicated to the public. The MDEQ, Water Resources Division, is solely responsible for the accuracy of the statements and interpretations contained in this publication. Such interpretations do not necessarily reflect the views of the federal government.

Posted on MDEQ Floodplain Management/National Flood Insurance Web page.

## DISTRICT FLOODPLAIN ENGINEERING STAFF

**SE Michigan: Maria Zingas and Patrick Durack**  
Warren 586-753-3700  
**Jackson/Lansing: Donna Cervelli**  
517-243-6951  
**Saginaw Bay: Joy Brooks**  
Bay City 989-894-6226

**Grand Rapids: Matt Occhipinti**  
616-204-1708  
**Kalamazoo: John Bayha**  
269-567-3564  
**Upper Peninsula: Linda Hansen**  
Houghton 906-483-3896  
**Cadillac/Gaylord: Susan Conradson**  
Cadillac 231-876-4443

### In This Issue:

Great Lakes Coastal Flood Study Overview .....	2
What are V/VE Flood Zones? .....	3
Michigan Stormwater-Floodplain Association (MSFA) Annual Conference Held February 28-March 3, 2017 .....	4
Giving Voice to Floodplain Managers "In the Trenches" .....	5
Real Life Story of the Day .....	6
Earth Day Celebration—April 20, 2017 .....	8
What is My Role as a Floodplain Manager? .....	9
The 2017 CRS Manual is Approved and Available.....	10
Poll Finds nearly 75% of Voters Support Flood Reforms .....	11
Revised NFIP Flood Insurance Manual Posted Online .....	11
Protecting Building Utilities from Flood Damage FEMA P-348, 2nd Edition now Available .....	12
1964 Handbook of Applied Hydrology gets an Update.....	12
USDA Announces New Conservation Opportunities to Improve Water Quality and Restore Wildlife Habitat .....	13

## **Great Lakes Coastal Flood Study Overview**

(From website of The Great Lakes Coastal Flood Study (GLCFS))

The GLCFS is a multi-year project led by the Federal Emergency Management Agency (FEMA) to put a wide range of decision-making data in the hands of Great Lakes coastal communities, including more accurate and up-to-date Flood Insurance Rate Maps (FIRMs). These flood maps and related information are powerful tools that can help communities make more informed decisions about how to make their families, homes, and businesses safer and stronger. Flood maps and flood risk information can help identify high-risk areas and guide comprehensive land use planning and safe capital investments to mitigate the severity of future losses.

### **The Latest Updates**

Work maps of the Lake Erie shoreline in Ohio and Michigan are being compiled based on completed flood and wave hazard analyses. By late summer 2016, FEMA expects to release draft flood hazard work maps to all coastal communities in Ohio and Michigan located along the Lake Erie shoreline. The draft flood hazard work maps reflect the input FEMA has received from Lake Erie communities throughout the GLCFS process to date. Release is first expected for counties on the east side of the State of Ohio, progressing clockwise around Lake Erie. Mapping is already complete for Erie County, Pennsylvania, where communities reviewed their work maps in fall 2015.

The scope of the study includes depiction of new coastal hazard areas, including AE and VE Zones. Coastal high hazard areas or VE Zones are areas where wave hazards are expected to be particularly strong and have the potential for causing structural damage to buildings. AE Zones indicate areas exposed to smaller waves or no waves at all (also referred to as stillwater). Mapping criteria will place the VE Zones where waves are 3 foot or greater during a 1-percent-annual-chance storm event, wave run-up depths are 3 feet or greater, or where wave overtopping is most severe. These large waves can increase associated hazards to life and property compared to storm surge alone.

VE Zones will not cover the entire county-wide Special Flood Hazard Area (SFHA) floodplain. Rather, they should be expected in areas directly adjacent to Lake Erie where exposure to open-lake wave energy occurs. VE Zones can also be anticipated in low-lying areas where wave energy could spread over land.

The VE Zone is a new concept for most communities in the Great Lakes, and it carries unique coastal construction standards, which are intended to help safeguard against damaging wave forces, when implemented under local floodplain management ordinances. FEMA is initiating the VE Zone designation and will be showing these areas on the draft flood hazard work maps. This is in light of an independent study conducted to review methodologies and evaluate applicability of the VE Zone designation in the Great Lakes. After careful review, FEMA determined that identifying VE Zones are not only appropriate for the Great Lakes, but critical for ensuring proper flood hazard awareness by coastal communities. The independent study also looked at FEMA's use of coastal engineering and mapping methods and determined the lake-wide water level modeling used to identify hazards is state-of-the-art.

More information about VE Zones, including details about the reasons they appear on the draft flood hazard work maps and floodplain management implications, is currently being compiled in a series of fact sheets FEMA will share at the Flood Risk Review Meetings (refer to "What's Next?"). Specific questions regarding VE Zones can be directed to the study team to ensure concerns are addressed (refer to "How to Contact Us" at the end of this newsletter).

### **Project Status Update**

Modeling was recently completed in spring 2016, following the acquisition of topographic data and the assessment of the study area. Identification of the 1% annual-chance SFHAs is in various stages of completion. Draft floodplain mapping is complete for Ashtabula, Lake, and Cuyahoga counties in Ohio and is currently underway for the remainder of the Lake Erie coastal counties in Ohio and Michigan. The results show that wave run-up will be the dominant hazard along much of the Ohio shoreline.

Flood hazard information and base flood elevations shown on the draft flood hazard work maps will include the effects of wave run-up. These draft flood hazard work maps will reflect the input we have received from Lake Erie communities throughout the study process and the recommendations of the independent study mentioned earlier.

### **What's Next?**

Over the next year, as the draft flood hazard work maps are developed into final regulatory products, there will be more opportunities for communities to review the maps and provide input. These include FEMA-hosted workshops and public open house meetings that will coincide with the phases of the new FIRM development and rollout. This GLCFS is funded by FEMA under the Agency's Risk Mapping Assessment and Planning Program, and is intended to address flood risk. Mapping data from the study will be used to revise the FEMA FIRMs. This data is not specifically related to erosion control statutes executed by the National Oceanic and Atmospheric Administration (NOAA) or state government under the authorities of the Coastal Zone Management Act.

### **How to Contact Us**

Please visit [www.greatlakescoast.org](http://www.greatlakescoast.org) to learn more about the Great Lakes Coastal Flood Study. You may also contact Ken Hinterlong, FEMA Region V Senior Engineer, and Great Lakes Coastal Flood Study Project Manager, at [Ken.Hinterlong@FEMA.dhs.gov](mailto:Ken.Hinterlong@FEMA.dhs.gov).

## **What are V/VE Flood Zones?**

(From FEMA.gov website)

FEMA official definitions:

**V Zone:** Areas along coasts subject to inundation by the 1% annual-chance flood event with additional hazards associated with storm-induced waves. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

**VE Zones:** Areas subject to inundation by the 1% annual-chance flood event with additional hazards due to storm-induced velocity wave action. Base Flood Elevations (BFEs) derived from detailed hydraulic analyses are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

## **Michigan Stormwater-Floodplain Association (MSFA)** **Annual Conference Held February 28-March 3, 2017**

For the 30th time the MSFA held its annual conference for persons with an interest in the state's floodplains to attend and share those interests with others. The sharing is often with the intent of learning of new ways to solve old problems and in reverse, old ways that have proven themselves as "go to" accepted solutions for effective floodplain management.

The program for the multi day conference provided 21 whole group presentations, break out specialty sessions, and time to discuss business and projects with any of several industry exhibitors in attendance. The schedule also provided for the MSFA annual membership business meeting. During the meeting, officer and district representatives were approved for the following year. Seven newly certified floodplain managers were identified and presented with framed recognition certificates for their successful efforts in becoming Certified Floodplain Manager (CFM). They were Michael Baker, Jason Crumka, Karol Grove, Kristen Gundersen, David Holmberg, Scott Isenberg, and Nyal Nunn.

The conference was held at the Radisson Hotel in downtown Lansing. The official main conference days were from March 1-3, 2017. February 28, and the morning of March 1, was a time for pre-conference activities which persons could participate in as extras of the main full conference registration option. The pre-conference schedule included a "FEMA Floodplain Overview" workshop which touched on state and local floodplain development and building regulations and management concepts along with the discussion on key content of the National Flood Insurance Program (NFIP). A second program presentation was a time to show the attributes and design of the Michigan Department of Environmental Quality's (MDEQ) MiWaters land/water interface permit application tracking and management program.

The Wednesday morning of the pre-conference portion provided for the proctoring of the Association of State Floodplain Managers (ASFPM) "Certified Floodplain Manager" (CFM<sup>®</sup>) exam. This certification program is a national and internationally recognized program. It is designed to provide recognition and acknowledgement of persons who have demonstrated special aptitude and knowledge of floodplain management concepts and theories and how to apply them. Seven persons sat for the exam with five being successful in receiving a passing score to earn CFM<sup>®</sup> recognition. Michigan now has 83 ASFPM recognized CFM<sup>®</sup>s. These persons are resource persons one can safely know have knowledge and understanding of floodplains, their values, development regulations/criteria, and how to live outside and within their boundaries. The new Michigan CFM<sup>®</sup> are Brittany Allen, Paul Bahs, Richelle Ozoga, Charles Smith, and Kelsea Zimmerman.

The other Wednesday morning pre-conference subject was a session covering the generalities of the MDEQ asbestos abatement program.

There were a total of 21 presentations for the full conference all of various subject matters. They included MSFA, ASFPM, MACDC, MDEQ, NOAA updates, community experience managing floodplain management, Community Rating System (CRS), flood frequency calculations, storm sewer capacity issue identification, stormwater funding discussion, stormwater design standards, hazard mitigation, river history, bathymetry, and others.

There were over 109 persons registered for the conference and participating in the pre-conference and/or the full conference program activities.

The next year's conference dates and place have been set and committed to. It will be returning to the Radisson Hotel in Lansing for another year. The facility seems to be a good fit for the MSFA group and its conference needs. Next year's conference dates are February 20-23, 2018.

## **Giving Voice to Floodplain Managers "In the Trenches"**

(From ASFPM's News and Views, February 2017 2, vol. 30, No. 1)

For the first time in history, ASFPM conducted a comprehensive, national survey of local floodplain managers. In the past, ASFPM surveyed state floodplain managers to assess state programs and practices. But this publication, "Floodplain Management 2016: Local Programs Survey Report," is a snapshot on what local programs are doing in the floodplain management arena. It attempts to provide insight on who the local floodplain managers are and highlights floodplain management programs' practices, capacity and challenges.

As you all know, there isn't one "perfect" model for a local floodplain management program. Every local program has its own unique characteristics that shape its approach to managing flood risks and floodplain resources. The geologic and geographic variability of floodplains and their respective risks can vary significantly. The constitutionally-established relationships between states and local jurisdictions also differ considerably from state to state. And political cultures of each state and its local governments often are such that program components that work well in one state, county or community may not be acceptable in another.

The survey was developed to obtain information from municipal or county floodplain managers to better understand the successes, needs and challenges associated with local-level programs. Data collected through this survey act as a baseline that can be used to evaluate the current state of local floodplain management programs and allows for comparison in the future. ASFPM hopes to repeat the survey every 5-7 years to track the evolution of local program through time.

The survey, funded by FEMA and developed and conducted by the University of Wisconsin—Survey Center, consisted of 47 questions, and responses were received from 821 communities and counties. Mr. Bill Brown, director of ASFPM's Flood Science Center (formally Science Services), compiled the information for this report.

Everyone who looks at this report will be interested in different findings. Following are just some of the highlights ASFPM staff found noteworthy:

- The average number of years as a floodplain manager was eight years, and they averaged 11 years of floodplain management experience.
- Fully 1/3 of floodplain managers are either zoning or building code officials. The next two closest disciplines are planners (11.6%) and engineers (11.3%).
- An overwhelming majority of local floodplain managers say they need more comprehensive, technical assistance.
- When asked what one tool was needed to improve local floodplain management programs the top three were: Mapping tools/resources (16%), training (14%), and staff/time (12%). Interestingly, community/management support ranked lower at 6%.
- 62.9% of respondents indicated their community's regulation standards were not more stringent than minimum NFIP standards.
- More than 50% of respondents said they spent 0% of their time promoting flood insurance.
- Many floodplain managers had no familiarity with several federal grant programs.
- 69.6% of respondents indicated that they spent 10% or less of their time on floodplain management activities and less than 3% spend more than half their time on floodplain management activities.

- Surprisingly about 50% of communities consider climate change as it relates to flood risk in one or more of their community's plans or standards.
- Only 46% of respondents were familiar with ASFPM (Wow! We have some work to do).

Using this report, we hope communities can benchmark their programs against what others in the nation are doing, make some decisions about what they're succeeding at, what can be improved within their own community and how to prioritize the goals.



**Sometimes a few words tells it all!**

Statement from Dr. Vicki Watson of the University of Montana, coupled with a graphic paid for by ASFPM. It was available as a T-shirt graphic at the ASFPM conference in 2007.

### **Real Life Story of the Day**

(This is a MDEQ-received e-mail inquiry)

**Story:** My husband and I have lived in our home for 12 years. Recently our mortgage was sold to another lender, and approximately two weeks ago we received communication from a third-party company contracted by the new lender that we have 45 days to prove we DON'T need flood insurance; if we don't, we will automatically be made to purchase it. We have never been required to have this before, and we are absolutely in a maze of FEMA paperwork to attempt to figure out how to go about this! FEMA is telling us it will take a minimum of 60 days to process our paperwork. What do we do?

My husband contacted a land surveying company this morning and we are looking at over \$1,000 to have done what FEMA is telling us we have to do. We have contacted the lender and they cannot answer any of our questions and will not provide us with the contact information of the third-party company.

I am reaching out to you for help. This is wrong.

**Real Life Response:** Your story is typical for what homeowners with mortgages across the US find themselves often having to resolve. The process that you are experiencing is what is called for by federal rules and regulations whenever a federally regulated lender is considering a loan issuance, originally or secondarily. There are federal banking regulations that require lenders to review, or have reviewed by a contracted firm, the effective FEMA flood maps. The maps are reviewed for the site subject to the loan to determine if the existing or the proposed new structure being offered for collateral is located in the 1% annual chance special flood hazard area as shown on the effective FEMA flood map. If it is, then the mandatory flood insurance requirement applies. This requirement carries with it a compliance fine if the lender fails to require flood insurance when it should have. In recent years, more lenders have been faced with fines for failing to require flood insurance when they should. Thus, lenders are being more diligent in complying with the insurance requirement than they have in the past.

In your situation, the FEMA Letter of Map Amendment (LOMA) special review process (60 days or more) will likely not be completed in the 45 day window period that you have been provided by the lender to obtain insurance. You may want to consider the following: go ahead and obtain a flood insurance policy thru a local insurance agent who writes National Flood Insurance Program (NFIP) insurance. You will need to pay the annual premium and once you do this, the proof of purchase can be presented to the lender as evidence of having a policy within the 45 days to avoid the forced placement option the lender has indicated will occur.

If you believe that your particular home situation places the home above/out of the special flood hazard area as identified on the FEMA flood map, then you can proceed with the FEMA LOMA application process. The FEMA review of your LOMA documents will determine whether the home elevation is above the site's base flood elevation (BFE) or not. The use of a licensed land surveyor or a licensed engineer to obtain the LOMA required elevations for the site and the home is NFIP requirement. Often, for a fee, the surveyor or engineer will do a complete LOMA application package for which they collected the elevation data for and submit the completed LOMA packet to the FEMA on your behalf. The fees for this service vary from area to area and surveyor to surveyor. I would interview several surveyors who work the area to see what the range of fees and services would be for you needs. Since the surveyors are all licensed, then they all should be able to complete the LOMA application packet to the same endpoint. So the main issue for choosing one to do the LOMA application packet completely is the best way to economize the service you need to have completed.

The importance of knowing and doing the above (buying a policy and then having a LOMA processed) is this: If the FEMA review of your submitted LOMA is found in your favor where the FEMA letter you receive indicates that its review finds the home to be located out of the special flood hazard area as shown on the FEMA flood map, then that finding can be presented to the lender. It will be considered as official documentation from the FEMA NFIP that it has determined the structure is out of the mandatory flood insurance special flood hazard area. The lender can use this as documentation to release you of its original flood insurance requirement of the loan. Assuming this happens, and you do not wish to continue keeping the policy in force, you can request your agent, who wrote the policy, to refund the complete annual premium that you paid to obtain the policy to begin with. Federal law provides for this premium refund to be available and to be honored. With a lender forced-placed insurance, as was indicated would be done, you do not have the certainty of the full policy premium refund, if any, as you do with the NFIP insurance policy.

The above real story and associated experiences with it is a common place reality for homeowners and lenders when loan collateral is or will be located within a 1% annual chance floodplain anywhere in the country. It is hoped this tale helps with your understanding if you have, are, or may experience a similar situation.



## **Earth Day Celebration—April 20, 2017**

The day started with a Mother Nature celebration of predawn bright lights and noise—thunder, lightning, and deluge at times, in and around the Lansing area. All I could think of was the school teachers and bus drivers attending the Earth Day celebration in Constitution Hall doing their best to provide a comfortable, safe day of learning enjoyment and having to factor in the day's forecast of storms, rain, and wind.

The special activities of the day got started early, sometime around 8:00 a.m. It seemed that every program housed and being administered by State Departments in Constitution Hall may have had a display of some kind as part of the whole Earth Day Celebration. MDEQ floodplain staff provided day-long demonstrations to the youth and old alike through the day. The floodplain watershed model can imitate several flood type scenarios depending on the type of landscape precipitation module used in the watershed head waters and the extent of inserted development types placed in the downstream floodplain. It is a very visually oriented learning tool that persons of all ages can readily see obvious results from wise and unwise landscape manipulations within a watershed.



Ready for the Earth Day 2017 Opening Celebration to officially begin.

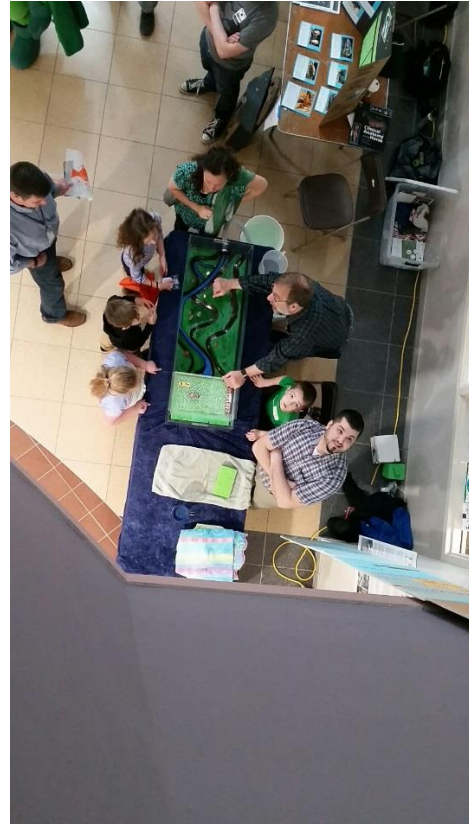


Drumming up the beginning of another Earth Day.





“Oh my! I didn’t know that is what happens in the floodplain. Why would I want to build a new home there?”



“Ralph! Looks like another big storm is rolling in. Are we prepared?”

## **What is My Role as a Floodplain Manager?**

A very scary, albeit, fair, reasonable, and smart question. This means there is some thinking going on with the person asking the question. Presumably, it is the community official who has been assigned or has volunteered to do whatever it is that is supposed to be done under that position title. When this question is asked, the MDEQ floodplain management program staff person knows that the job of providing direction and guidance to this inquiring official should be a whole lot easier than what it could potentially be. This is a person actually wanting to learn, be wiser, and more knowledgeable of all that is expected of them as a floodplain manager.

The various MDEQ district floodplain engineers who are the agency’s front line primary sources of floodplain management information and trainers all have various ways and experiences in training persons about floodplain management. However, they all have essentially the same goal of assisting in the development of a community official specialized in the realm of floodplain management. The more informed the officials are, the better the floodplain management program the communities will have. With more well informed communities, the greater the MDEQ confidence level is that the community floodplain manager is properly filling the role in the community and is effectively promoting and managing the wise use of its floodplains.

One of the first steps that an official can and should do to begin the learning process for the floodplain manager role, is to find and study the community's original set of NFIP community enrollment documents. Such documents were part of its application to the FEMA for enrollment into the program as a participating community. Those documents provide the basis used in the community's original NFIP enrollment. They also identify and confirm the community's promises/commitments it makes to the FEMA if they are accepted into the NFIP as a participating community.

It is the promises/commitments that are detailed in the enrollment documentation that represents the priority actions that a community has agreed to do. The minimal criteria for what a floodplain manager needs to understand and do are: compliance with those promises/ commitments, and to be a partner in the NFIP with its citizens, local officials, state officials, and the federal NFIP staff.

To have a program that is more than just doing the minimally required actions and activities, a floodplain manager may design and develop activities to have a more efficient program, greater outreach to the citizens of the community, and to support mitigation which will promote reductions in risk levels.

A floodplain manager is the principal community administrator responsible for the daily implementation of flood loss reduction activities. These include enforcing the community's flood damage prevention ordinance, updating flood maps, plans, and community policies, and any of the activities related to floodplain management is a decision-making process that aims to achieve the wise use of the nation's floodplains. Effective wise use of floodplains will realize reduced flood losses and the protection of such resources, and their functions.

The NFIP underwrites flood insurance coverage only in communities that adopt and enforce floodplain management regulations. This is done by individual communities developing and adopting a floodplain management ordinance which meets or exceeds the NFIP criteria.

If you are a community floodplain manager and have asked the above question of yourself or of others there are a couple suggestions to consider:

1. Contact the MDEQ district flood engineer for the area of your community and request that person to conduct a "Community Contact Visit." Either over the phone or thru a personal visit, the district floodplain engineer will discuss NFIP participation and roles and duties.
2. Consider attending related courses at the FEMA Emergency Management Institute at Emmitsburg, Maryland. Courses for community officials are free. Transportation costs to and from and lodging costs during class sessions are reimbursement eligible. Attendees are expected to cover the cost of the available on campus meal tickets.

## **The 2017 CRS Manual is Approved and Available**

(From NFIP CRS e-mail notification)

The 2017 CRS Coordinator's Manual (Expiration date March 31, 2020) has been approved in accordance with requirements of the Paperwork Reduction Act. The Manual is available for download at [www.FEMA.gov](http://www.FEMA.gov) by searching for CRS Coordinators Manual in the search box and at *(The link provided was broken and has been removed)*.

The 2017 CRS Coordinator's Manual will be implemented by FEMA immediately. As always, changes will not take effect for any community until that community's next cycle verification visit. Changes from previous editions of the Coordinator's Manual will be marked with vertical bars in the margins of the pages of the 2017 Coordinator's Manual. Most changes are clarification and

improvements. The changes have been presented in issues of NFIP/CRS Update newsletters, beginning with the September/October 2016 issue. Back issues are available at [www.fema.gov/national-flood-insurance-program-community-rating-system](http://www.fema.gov/national-flood-insurance-program-community-rating-system).

The CRS Webinars series for 2017 will include training courses on the new items in the 2017 CRS Coordinator's Manual and other topics to assist communities. Visit *(The link provided was broken and has been removed)* to see webinar dates and to register.

CRSresources.org will also have the community certification forms and other resources that pertain to the 2017 Coordinator's Manual. Other resources are being updated.

If you have questions regarding the 2017 CRS Coordinator's Manual, or trouble downloading the file, please contact your ISO/CRS Specialist.

### **Poll finds nearly 75% of Voters Support Flood Reforms**

(From the ASFPM's News and Views April 2017, Vol. 30, No. 2)

Almost three-quarters of registered voters—across party lines—support policies that would enable communities to better prepare for and respond to floods, according to a nationwide survey. The poll, conducted by the research firm Public Opinion Strategies for The Pew Charitable Trusts, examined attitudes toward flood-related disasters and proposed policy reforms aimed at improving preparedness and reducing recovery costs. Specifically, participants were asked about the National Flood Insurance Program. The flood insurance program is nearly \$25 billion in debt. Respondents overwhelmingly support proposals to require property sellers disclose flood risk and communities take steps to lessen flood impacts to reduce the costs of rebuilding. Click here to see key findings from the poll.

## **ATTENTION**

**ASFPM's Job Postings =**  
**<https://www.floods.org>**

### **Revised NFIP Flood Insurance Manual Posted Online**

(From ASFPM's News and Views, April 2017, Vol. 30, No. 2)

The revised NFIP Flood Insurance Manual, used primarily by insurers and agents selling and servicing federal flood insurance, is now available online. Significant revisions include:

- Updates to the NFIP Bureau and Statistical Agent Regional Staff information (REF Section).
- Revised rates and premium tables for policies written or renewed on or after April 1, 2017 (RATE and CONDO Sections).
- Removed guidance regarding reduction of coverage when an insured has a non-NFIP policy (END Section).
- Revised the Newly Mapped Multiplier table to include policies effective Jan. 1, 2018 through December 2018 (NM Section).
- Provided additional information regarding specific location of properties in Coastal Barrier

Resource Areas (CBRS Section).

- Updates to the Community Rating Section Eligible Communities list (CRS Section).
- Updates to the Table of Contents and Index.

## **Protecting Building Utilities from Flood Damage FEMA P-348, 2nd Edition now Available**

(From ASFPM's News and Views, April 2017, Vol. 30, No. 2)

The FEMA Building Science Branch announced the release of the second edition of Protecting Building Utilities from Flood Damage, FEMA P-348. The overall objective of this updated publication is to assist in the repair, reconstruction and new construction of buildings with building utility systems and equipment that are designed and built for maximum flood resiliency. It also illustrates design and construction of utility systems that comply with NFIP requirements for new or substantially improved residential and non-residential structures in flood-prone areas. It is also useful when evaluating structures for utility system upgrades or replacement, guiding users to meet floodplain management regulations and building code requirements. Even if NFIP compliance is not required, many building owners may find that applying the mitigation measures described in this publication will not only reduce future flood damage, but also facilitate faster recovery after flooding.

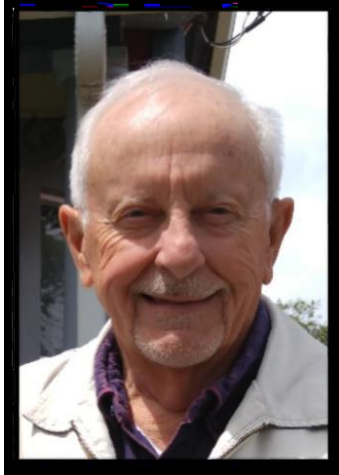
## **1964 Handbook of Applied Hydrology gets an Update**

(From ASFPM's News and Views, December 2016, Vol. 29, No. 6)

In celebration of the Ven Te Chow's 1964 Handbook of Applied Hydrology, a second edition was undertaken by Editor Vijay P. Singh, a Texas A & M University professor. The new "handbook," weighing in at a mere six pounds, contains 156 chapters with contributors from around the world, and covers all aspects of the hydrology field. Chapter 133, "Flood Proofing and Infrastructure Development," was written by ASFPM's long-time member Wallace "Wally" Wilson, our first chair of the Floodproofing/Retrofitting Committee and an ASFPM Foundation Fellow. Wilson, who retired from the Michigan DNR in 1997 and then started a consulting business until 2012, said, "It was indeed quite an honor to be requested to write the chapter. I purchased the original Chow edition for my graduate advanced hydrology class at Colorado State for \$30. The new 2nd edition is available from Amazon for \$165."

Singh was a personal friend of Chow's, which motivated him to undertake the monumental task of updating the Handbook. The Foreword states in part, "There have been exponential scientific and technological developments in all water-related area, especially during the post-1980 period. Thus, advances in knowledge had made the (original) Handbook obsolete by the early 1980s. It is indeed a tribute to Chow's genius that the book had remained useful for such a long period." In the Preface, Singh said, "It is hoped that the Handbook will become useful to college faculty, graduate students and researchers as well as practitioners in hydrology, water science and engineering (as well as the many other related fields)."

The Economist's Intelligence Unit published this incredible interactive story called, "Flood mitigation investment returns positive benefits." The benefits of flood mitigation go beyond dollars and cents. The Economist found that investment to make homes and infrastructure more flood-proof returns positive economic, environmental and social benefits for communities. The article is divided into three sub-stories: Flood mitigation takeaways; Community case studies; and The U.S. takes action. Long-time ASFPM member Wallace "Wally" Wilson (*and one of Michigan's best floodplain engineers--editor's note*), wrote Chapter 133 in the second edition of Handbook of Applied Hydrology.



## **USDA [United States Department of Agriculture] Announces New Conservation Opportunities to Improve Water Quality and Restore Wildlife Habitat**

(From ASFPM's News and Views, December 2016, Vol. 29, No. 6)

DES MOINES, Iowa, December 7, 2016 – Agriculture Secretary Tom Vilsack announced the U.S. Department of Agriculture will offer farmers and ranchers more opportunities to participate in the Conservation Reserve Program (CRP). The announcement includes new CRP practices to protect water quality and adds an additional 1.1 million acres targeted to benefit wildlife, pollinators and wetlands.

"The Conservation Reserve Program is an extremely popular voluntary program that offers producers and landowners a wide variety of opportunities to prevent erosion, protect wildlife habitat and reduce nutrient runoff," said Vilsack. "With the program close to the legal enrollment limit of 24 million acres, USDA has been working to use all of the tools at our disposal to maximize benefits by combining multiple soil, water and wildlife objectives in the areas where it is needed most."

Vilsack unveiled a new conservation initiative known as Clean Lakes, Estuaries and Rivers (CLEAR), which will add new tools to CRP that can help to improve water quality. CLEAR will assist landowners with the cost of building bioreactors and saturated buffers that filter nitrates and other nutrients from tile-drained cropland.

Early estimates indicate that CLEAR could help to reduce nitrate runoff by as much as 40 % over traditional conservation methods. CLEAR may cover up to 90 % of the cost to install these new practices through incentives and cost-share. These new methods are especially important in areas where traditional buffers have not been enough to prevent nutrients from reaching bodies of water.

USDA will also add an additional 1.1 million acres to a number of key CRP practices that are critically important to wildlife and conservation. These include 700,000 acres for State Acres for Wildlife Enhancement (SAFE) efforts, which restore high-priority wildlife habitat tailored to a specific state's needs. In addition to SAFE, 300,000 acres will be added to target wetlands restoration that are nature's water filters and 100,000 acres for pollinator habitat that support 30 % of agricultural production.

The continued strong demand for CRP combined with the limited acreage available for enrollment and lower land rental rates, allows USDA to modify certain program components without affecting the integrity of the program. Signing incentives are being reduced by \$25 per acre on certain practices for fiscal year 2018 enrollments (incentives are currently between \$100 and \$150 per acre) and a cap on the maximum soil rental rate is being instituted for Continuous CRP at \$300 per acre. The savings from these changes are being reinvested back in CRP, including the additional acres for SAFE, pollinator habitat and wetlands restoration.

To learn more about Farm Service Agency (FSA) conservation programs, visit [www.fsa.usda.gov/conservation](http://www.fsa.usda.gov/conservation) or contact your local FSA office. To find your local FSA office, visit <https://www.usda.gov/our-agency/staff-offices>.

Throughout the Obama Administration, USDA has generated thousands of critical partnerships to conserve and protect our natural resources on working landscapes, while enrolling a record number of acres in conservation programs. Seventy % of the nation's land is owned and tended to privately, and America's farmers, ranchers and landowners have willingly stepped up to address the growing impacts of a changing climate. With USDA's support, they are working to implement voluntary practices that improve air and water quality, prevent soil erosion and create and protect wildlife habitat. Since 2009, USDA has invested more than \$29 billion to help producers make conservation improvements, working with as many as 500,000 farmers, ranchers and landowners to protect land and water on over 400 million acres nationwide. Read more about USDA's record conservation outcomes under this Caring for our Land, Air and Water: Preserving Precious Natural Resources for Tomorrow.

For information or assistance on this publication, please contact the (name of division/office, program), through the DEQ Environmental Assistance Center at 800-662-9278. This publication is available in alternative formats upon request.
---

*This publication is intended for guidance only and may be impacted by changes in legislation, rules, policies, and procedures adopted after the date of publication. Although this publication makes every effort to teach users how to meet applicable compliance obligations, use of this publication does not constitute the rendering of legal advice.*