Flood News for Michigan Floodplain Managers

A Newsletter of the
Land and Water Management Division
Michigan Department of Environmental Quality
www.michigan.gov/deq

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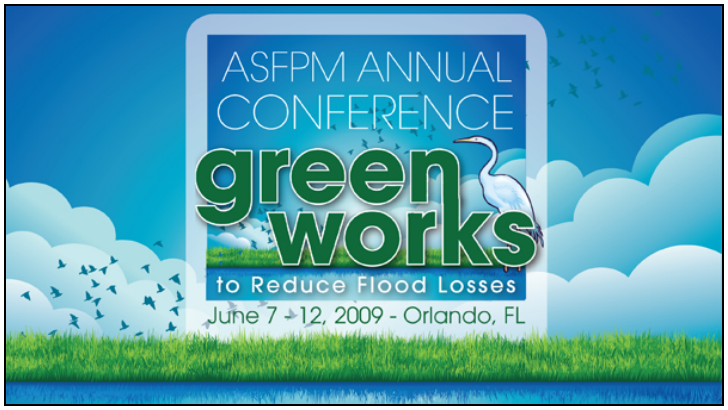
The 2009 ASFPM Annual Conference Should Not Have Left Any Floodplain Manager Wanting

(In part from ASFPM website conference page)

Michigan Communities: Get ready for 2015/16, as the conference may be in Michigan



The Association of State Floodplain Managers (ASFPM) recently convened its 33rd annual—and the world's largest and most comprehensive—floodplain management conference in Orlando, Florida the week of June 7-12, 2009, at the Rosen Center Hotel. Participating local, state, and federal officials, industry leaders, consultants, and other interested parties shared and networked their floodplain managing experiences by attending a multitude of varying sessions relevant to the 2009 conference theme, "Green Works to Reduce Flood Losses".

Throughout the week, over 1,200 of the industry's experts conducted plenary and concurrent sessions and shared state-of-the-art techniques, programs, and resources for accomplishing flood mitigation, watershed management, and other community floodplain management goals. A three-day comprehensive exposition featured the materials, equipment, accessories, and services vital to getting the floodplain management job done. Supplementary technical field tours and training workshops provided in-depth training and numerous networking activities offered additional opportunities to learn from each other.

The local host, the Florida Floodplain Managers Association, did a tremendous job of making sure the conference progressed throughout the week without any major hitches. The Association's volunteers worked tirelessly to make sure all their guests had the best conference that could be produced. Thank you, and the bar has been set for the Oklahoma Floodplain Managers Association to use as a guide to the top level of hosting that ASFPM members will be expecting at next year's conference. It will be held in Oklahoma City, Oklahoma, at the Renaissance Hotel & Conference Center, May 16 - 21, 2010. Watch the ASFPM website www.floods.org for more information as it becomes available.

As a representative of Michigan's Stormwater-Floodplain Association (MSFA) and functioning as the State National Flood Insurance Program Coordinator, I cannot stress enough, the great value there is to attending the ASFPM's annual conferences. I have attended several over the years as travel funds have allowed, and the ASFPM is the only organization that maintains the day-to-day and year-to-year pulse on what is current and where floodplain management is at and where is headed in the future. If you as a local official have any role for floodplain management in your community and you have any chance for training, you should consider attending the ASFPM annual conference – it is time and money well invested.

Special note to all Michigan Community Officials: Something to consider in your future strategic planning and budgeting for floodplain management and training for your officials is the fact that the Michigan Stormwater-Floodplain Association has officially submitted its interest in hosting the ASFPM annual conference. The offer has been accepted by the ASFPM for consideration, and the long-range scheduling provides a possibility of being the chosen host for 2015 or 2016.

Changes to eLOMA Process

From the Association of State Floodplain Managers

FEMA is preparing to transition from a single National Service Provider (NSP) contractor to three separate Production and Technical Services (PTS) contractors, which will result in some changes to the current eLOMA process. For the eLOMA process, this transition is scheduled to take place on July 1, 2009.

Each PTS Contractor will be responsible for conducting eLOMA audits and supporting the eLOMA users in each of their respective Regions. There will be an eLOMA Coordinator at each of the three PTS Contractors. Please see below for the three PTS Contractors, the new eLOMA Coordinators, and the Regions they will be responsible for:

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Questions and Answers

Q: If a home on a crawl space is located in a special flood hazard A zone, what effect on a flood insurance policy premium will there be if the crawl space is not properly vented?

A: Improper venting will lead to an increase in the policy premium. This happens because the floor level (thus elevation) used for rating purposes changes from the normal higher first floor living area above the crawl to the floor of the crawl, since without proper venting it meets the definition of "lowest floor", which is the lowest floor of the lowest enclosed area (including basement).

Q: I'm reviewing a grant application and have a question based on something the applicant included in their application. The application is for the City to buy a house in the floodway. The application states the following:

"If the property is not purchased for flood mitigation, the owner could likely sell the property for reuse or redevelopment. Residential construction would be unlikely, since the State of Michigan prohibits new residential construction in the floodway. However, the property is zoned C2B, which allows commercial development."

Could someone redevelop a floodway site for commercial purposes? If we prohibit use for residential, it seems like we would also prohibit it for commercial. Can you clarify for me?

A: The State's Floodplain authority (Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended), prohibits residential construction within the floodway portion of the floodplain, as the floodway is a "high" hazard portion of the floodplain. Non-residential construction could be allowed in the floodway, although it would have to be demonstrated that the alteration of the floodway would not harmfully restrict flood flows or shift flow onto adjacent

property owners. So yes, the City's interpretation is correct. If it can be demonstrated that the floodway alteration will not increase flood stages or shift flow onto adjacent property owners, it is possible that a Part 31 floodplain permit could be issued for non-residential construction in the floodway.

One thing I should note is that the State's floodplain authority does not apply to streams which have a drainage area/watershed that is less than two square miles. So for smaller streams (less than 2 square miles) the residential prohibition would not apply, unless a community/county has adopted something to that effect.

Q: I currently have a flood insurance policy. I have made one claim on the policy in the past. Recent storm events nearly caused water to flood my home again. I would like to consider raising my home to be above the determined Base Flood Elevation. Can I expect to use the Increased Cost of Compliance (ICC) coverage contained within my policy?

A: You may file a claim for your Increased Cost of Compliance coverage in two instances:

If your community determines that your home or business is damaged by flood to the point that repairs will cost 50 percent or more of the building's pre-damage market value. This is called substantial damage.

If your community has a repetitive loss provision in its floodplain management ordinance and determines that your home or business was damaged by a flood two times in the past 10 years, where the cost of repairing the flood damage, on the average, equaled or exceeded 25 percent of its market value at the time of each flood. This is called repetitive damage. Additionally, there must have been flood insurance claim payments for each of the two flood losses.

QUICK FACTS

March 26, 2009

National Flood Insurance Program (as of December 31, 2008)

- Flood policies in force nationwide equaled 5,604,771.
- **Top 5 policy states:**

Florida	2,184,379
Texas	678,348
California	269,380
Louisiana	481,235
New Jersey	227,089

- Loss and Loss Adjustment Expenses in FY 2009: $2.1 billion
- Loss and Loss Adjustment Expenses in FY 2008: $941 million
- Loss and Loss Adjustment Expenses since 1969: $36.6 billion
- Outstanding Treasury borrowing equaled $19.273 billion as of February 28, 2009, and the most recent borrowing equaled $111 million on February 28, 2009.
- Flood insurance is available in 20,727 participating communities nationwide, with 20,116 Regular Program Communities and 611 Emergency Program Communities.

- There are 1,095 communities participating in the **Community Rating System (CRS),** accounting for 66 percent of policies in force. The number of communities for each level of premium discount follows:

259 @ 5%	Class 9	2 @ 30%	Class 4
462 @ 10%	Class 8	1 @ 35%	Class 3
235 @ 15%	Class 7	2 @ 40%	Class 2
88 @ 20%	Class 6	1 @ 45%	Class 1
45 @ 25%	Class 5		

(See chart on page 6 for Michigan CRS Communities)

- 87 Insurance Companies writing flood insurance
  WYO policies: 98% Direct-side policies: 2%

- In the FY 2008 Severe Repetitive Loss Program, FEMA awarded $34.9 million in grants for 168 properties.

- 238 Insurance Agent seminars for 8,721 agents in FY 2008

- 71 Lender workshops for 2,175 lenders in FY 2008

- **Total Authorized NFIP Staffing: 351 FTE**

For Insurance	84 FTE
For Floodplain Management:	267 FTE
Total	**351**
In Headquarters	167 FTE
In Regions	184 FTE
Total	**351**

- **FY 2009 Financial Highlights (as of December 31, 2008):**

  Insurance in Force: $1,181,651,150,200
  Written Premium: $3,056,530,187
  Average Premium: $544
  Average Coverage: $210,830
  Number of Losses Paid: 40,820
  Average Paid Loss: $39,154

Michigan NFIP CRS Communities' Status as of 5/1/2009				
Community	CRS Entry Date	Current Class	% Premium Discount for SFHAs Policies	% Premium Discount for Non-SFHAs Policies
Bedford Township	5/1/2002	8	10	5
Commerce Township	5/1/2003	8	10	5
Dearborn Heights	10/1/1992	7	15	5
Farmington Hills	10/1/1994	10	0	0
Fraser Township	5/1/2003	9	5	5
Gibraltar	10/1/1992	8	10	5
Hamburg Township	10/1/1999	8	10	5
Luna Pier	5/1/2002	8	10	5
Midland	10/1/1992	5	25	10
Novi	10/1/1999	7	15	5
Park Township	5/1/2003	9	5	5
Portage	10/1/1992	8	10	5
Saginaw Township	10/1/2006	9	5	5
Saugatuck	10/1/2006	8	10	5
Sterling Heights	10/1/1995	7	15	5
Sumpter Township	10/1/1995	10	0	0
Taylor	5/1/2003	9	5	5
Taymouth Township	5/1/2003	9	5	5
Vassar	10/1/2006	6	20	10
Zilwaukee	5/1/2004	8	10	5

Are You, as a Community Official, Missing the Training Boat?

Source: EMI Website

Available to you are state of the art training sessions for many areas of study related to integrated emergency management, mitigation, disaster operations and recovery, NEMIS, IT training, learning development, train the trainer, professional development, readiness, and technological at a beautiful New England country landscape located in Emmitsburg, Maryland.

State, local, and Tribal government representatives are eligible for travel stipend reimbursements as provided for and described in the current “Resident Course Welcome Package” http://training.fema.gov/Student/ . Dormitory-style lodging is provided, and there is no charge if you are eligible for stipend reimbursement. All persons staying on campus must purchase a meal ticket, which covers the length of your training – daily (breakfast, lunch, & dinner) = $19.35; 5-day = $96.75; 6-day = $129.30; 2-week = $232.20. If you stay off campus, you must purchase a break ticket for each day of training for $4.00 per day.

The Emergency Management Institute (EMI) represents a 55-Year Legacy of Training and Education in Emergency Management”. EMI is located at the National Emergency Training Center (NETC) campus in Emmitsburg, Maryland. The campus is 107 acres shared by the United States Fire Administration (USFA), the National Fire Academy (NFA), the Emergency Management Institute (EMI), the Field Personnel Operations Division, and the Satellite Procurement Office, all part of FEMA.

Information on EMI programs and application information is available at http://training.fema.gov.

http://training.fema.gov/Student/

EMI History

In 1979, President Jimmy Carter formed the Federal Emergency Management Agency (FEMA) by consolidating several government organizations. That same year Congress appropriated funds to transfer the Civil Defense Staff College (CDSC) and United States Fire Administration (USFA) and National Fire Academy (NFA) into FEMA.

The Civil Defense Program (CDP) had been established in 1947 under the Department of Defense. In 1954, CDSC was founded in Battle Creek, Michigan, as a national adult resident training center under CDP to administer the civil defense training program. At the time of transfer to FEMA, the CDSC was re-designated as the Emergency Management Institute (EMI) to reflect its new and significantly broader mission to train and educate the nation's emergency management community.

In June of 1809, Elizabeth Bayley Seton, (later canonized as the first American Saint) had arrived in Emmitsburg, Maryland, and established the first parochial school for girls in the United States. Over the years, that school grew to include Saint Joseph College, a four-year liberal arts college for women. In 1973, Saint Joseph College closed its doors and merged its students and faculty with Mount Saint Mary's University, formerly a liberal arts men's college located two miles south on highway US-15.

Saint Joseph College facilities were purchased by FEMA in 1979 with funding from Congress for the specific purpose of housing EMI, USFA, and NFA in suitable facilities. Since 1979 EMI continues to share the 107-acre National Emergency Training Center (NETC) campus with USFA and NFA. Collectively the campus is designated NETC. CDSC funded its move and the major renovation needed to open required buildings for EMI on this campus. During transition, EMI held classes in temporary facilities until its renovations were completed and officially opened its doors on the new campus in early 1981. Additionally, major upgrades to the NETC campus occurred from 1991 through 1995 from Congressional appropriations.

EMI and NFA are managed independently with unique student audiences and curricula for the emergency management and national fire communities. EMI and NFA have collaborated on curricula and programs since their inception.

Present Day

Today EMI is accomplishing its mission of improving the competencies of United States officials at all levels of government to prevent, prepare for, respond to and recover from, and mitigate the potential effects of disasters and emergencies. EMI promotes integrated emergency management principles and practices through application of the National Response Framework, National Incident Management System, and an all hazards approach. EMI is the lead national emergency management training, exercising, and education institution.

EMI offers a full spectrum emergency management curriculum with over 400 courses available to the integrated emergency management community, which includes: FEMA staff and disaster employees, federal partners, state, tribal, and local emergency managers, volunteer organizations, and first responders from across the Nation. EMI supports international emergency management with more than 50 countries participating in EMI's training and educational activities through the years both in residence and through internationally deployed training teams.

EMI also enjoys close relations with several nationally recognized professional emergency management and related organizations and has interfaced with them through training, conferences, and exercises. Some of these significant organizations include the International Association of Emergency Managers (IAEM), National Emergency Management Association (NEMA), Association of State Flood Plain Managers (ASFPM),

American Public Works Association (APWA), American Society of Civil Engineers (ASCE), and American Society of Engineering Management (ASEM). EMI is fully accredited by the International Association for Continuing Education and Training (IACET) and the American Council on Education (ACE). In 1997 EMI was awarded the W. Edwards Deming Outstanding Training Award by the United States Department of Agriculture Graduate School at the Excellence in Government Conference. This annual award is presented to an organization for an impressive workforce development and training initiative that has measurably improved their organization's performance.

In 2007, EMI delivered 514 resident courses at the NETC campus training 14,565 individual students. The EMI Independent Study (IS) Program, a web-based distance learning program open to the public, delivered extensive on-line training from 62 courses and trained more than 2.8 million individuals. The EMI IS Web site receives from 2.5 to 3 million visitors a day. Nineteen new courses were added to the curriculum this past year alone. EMI has provided technical support to dozens of other federal government agencies and state offices on advanced distributed learning technology development and application. The IS program also hosts training for related federal agencies.

A vital asset to FEMA's disaster operations is the Disaster Field Training Organization (DFTO) implemented by EMI. In 2007 alone, the DFTO trained 24,950 disaster response employees and volunteers directly at disaster sites throughout the United States.

EMI conducts three national level conferences. The institute is the host to the National Preparedness Annual Training and Exercise Conference held in May and attended by Regional Training Managers, State Training Officers and Exercise Training Officers, State Administrative Authority Officials, and subject matter experts from a broad sector of the preparedness community. The EMI Higher Education Conference is held the first week in June for over 300 college and university officials with current or developing programs in emergency management and hosts up to 70 separate discussion groups. The Dam Safety Conference held in February is attended by dam safety officials, hydrologists, engineers, and reclamation officials.

For further information on EMI programs and to access training, exercise, and application information, visit http://training.fema.gov.

New Flood Maps Become Effective For 21 Million U.S. Residents

New Digital Flood Insurance Rate Maps (DFIRMs) for more than 21 million people have or will become effective over the next several months. These products are the result of the Federal Emergency Management Agency's (FEMA) Flood Map Modernization nationwide five-year flood hazard mapping initiative (Map Mod). This mapping effort will affect more than 900 communities in nearly 30 states and include large metropolitan areas like Los Angeles, California; Milwaukee, Wisconsin; and Baltimore, Maryland. FEMA's Map Mod program is a multi-year effort to provide new DFIRMs for 92 percent of the nation's population by the end of Map Mod. The new maps are more reliable, easier to use, and readily available than paper maps.

As the new DFIRMs become effective, flood risk designations for many properties are subject to change. This means that home and business owners may have questions about whether or not they should, or are eligible to, purchase flood insurance. Current policyholders may also have questions about selecting the best product and/or policy rate changes.

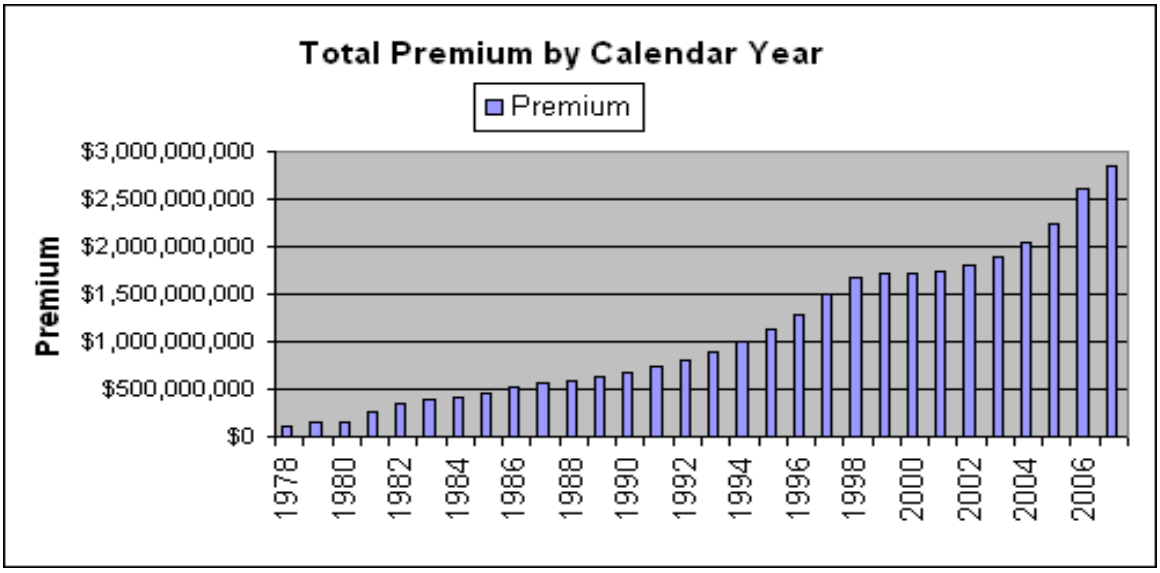
As a result, it is important for community officials and insurance agents to know when new flood hazard maps will become effective for their communities and how to appropriately communicate risk. A schedule of map effective dates is posted on FEMA's website at https://www.floodsmart.gov/floodsmart/pages/flooding_flood_risks/map_update_schedule.jsp.

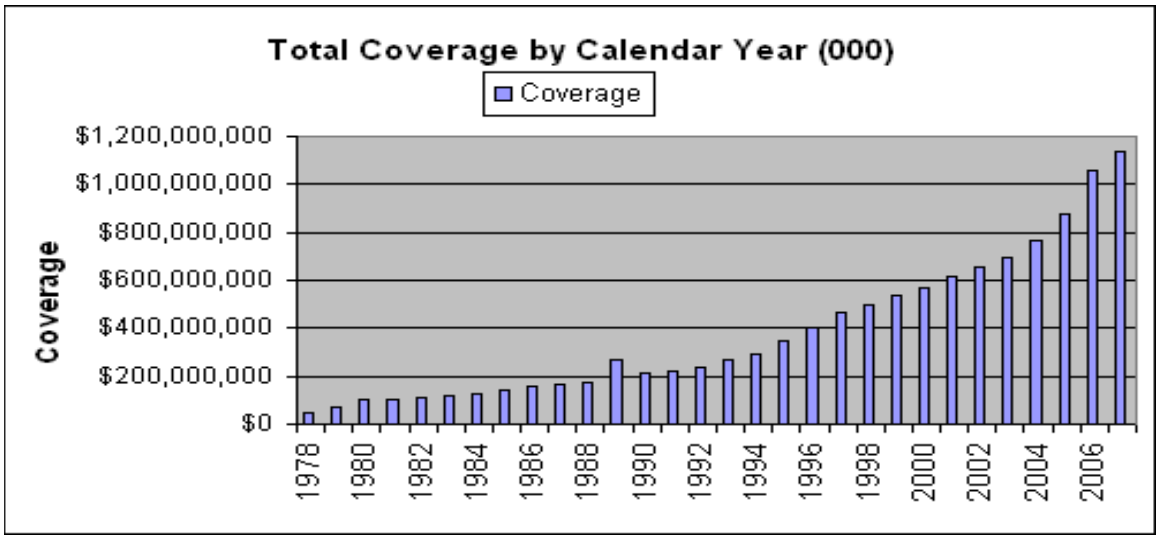
Tools for communicating about FEMA's Map Mod program are also available by visiting https://www.fema.gov/map-modernization.

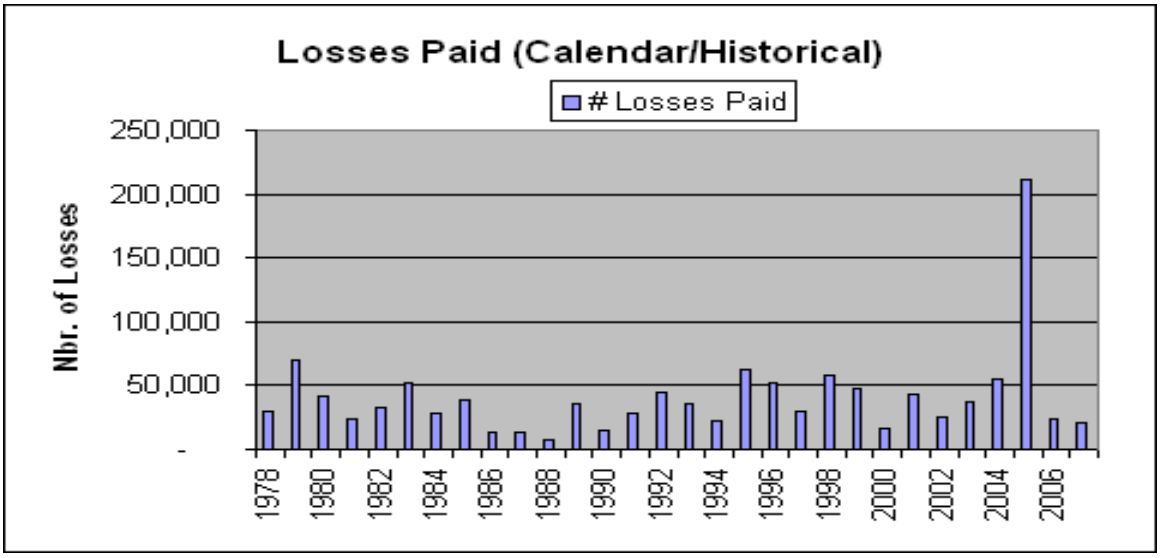
How Big is the NFIP?

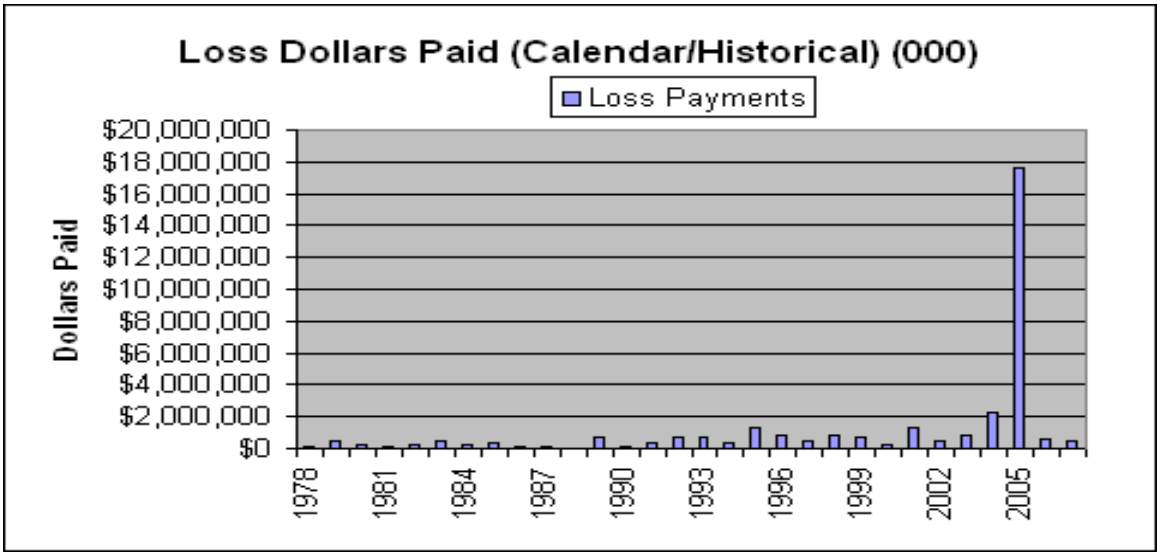
Often when one hears about the National Flood Insurance Program (NFIP), it is from the view of what the program is about and its purpose, values, and criteria. We typically aren't able to see how big a program it is from a dollar and numbers perspective. The following graphics provide a glance of how large a program the National Flood Insurance Program (NFIP) is and how many dollars are involved. The graphics are from FEMA's NFIP website and represent nationwide totals.

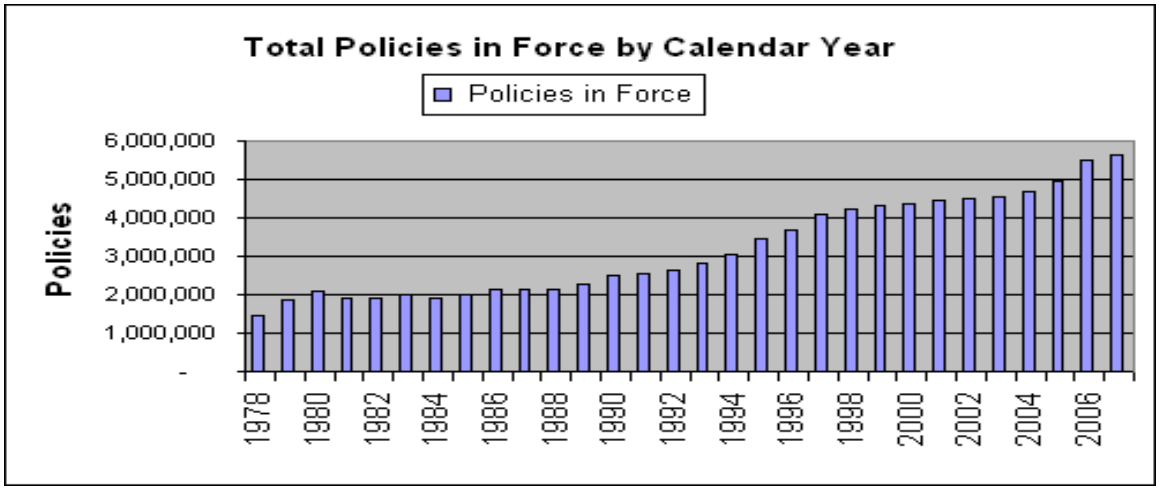
As of April 21, 2009, 817 Michigan communities have enrolled into the NFIP, thereby making flood insurance available to all of their citizens for valuable loss protection against damages to their residential and commercial structures in case of a flood event.

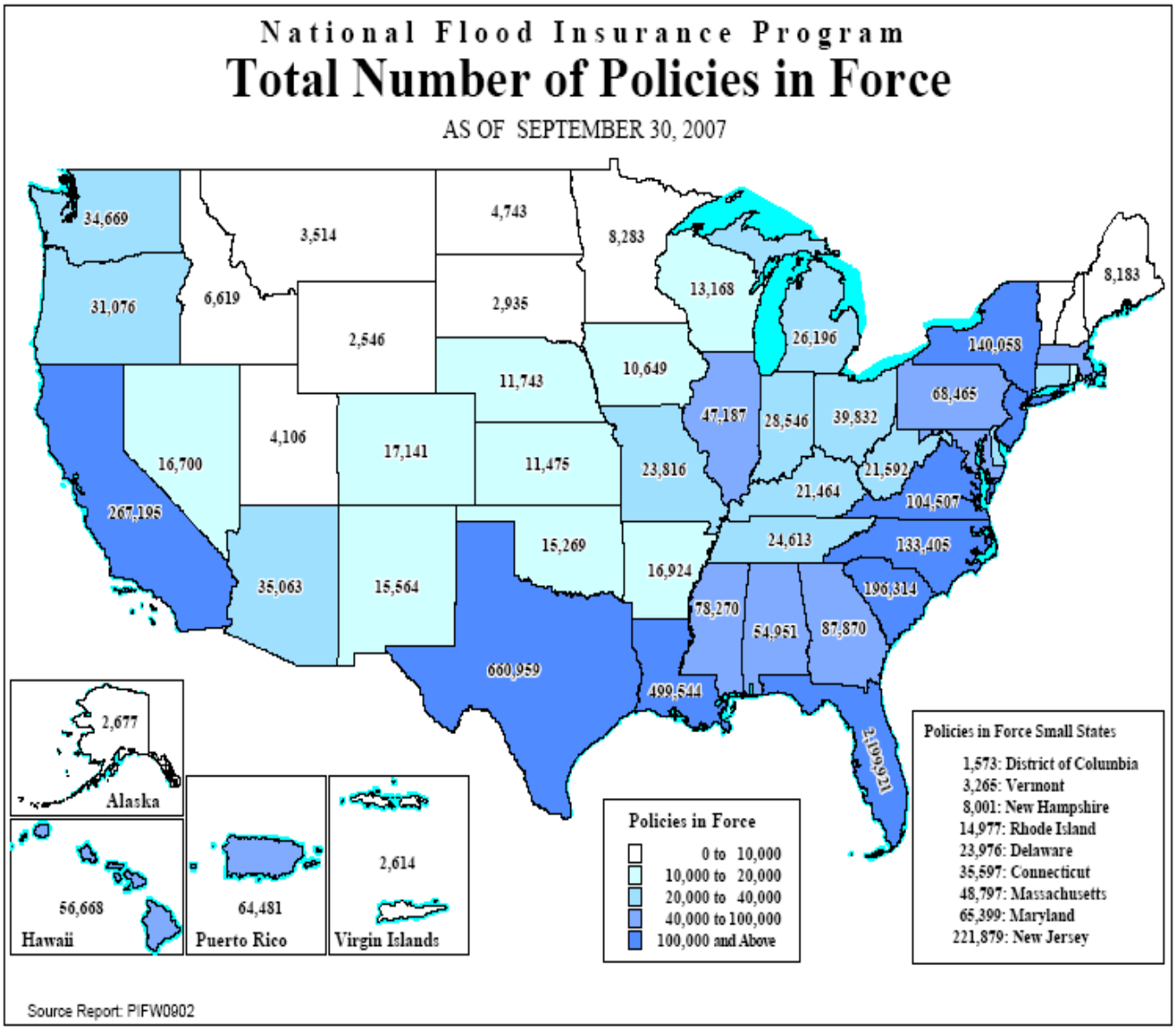


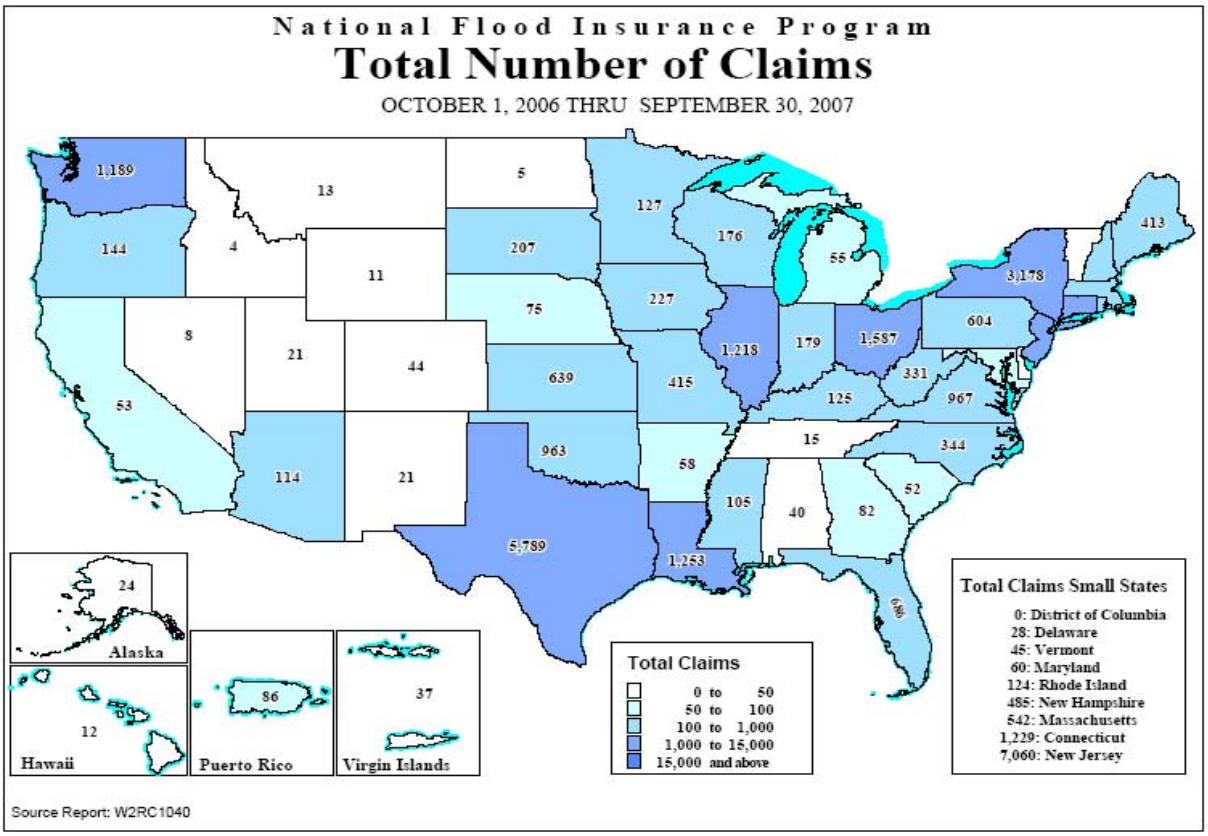


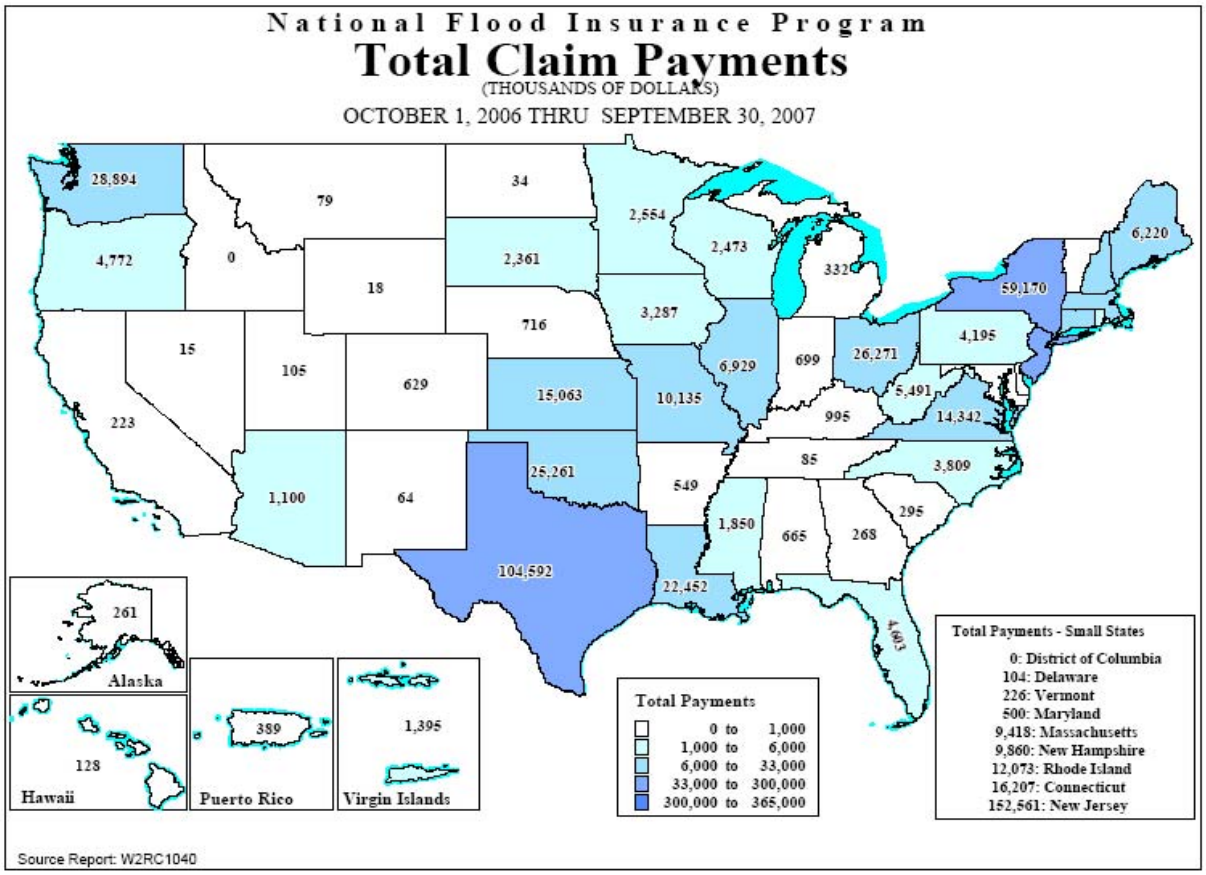

Losses Paid (Calendar/Historical)
Losses Paid
Nbr. of Losses
250,000
200,000
150,000
100,000
50,000
-
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006


Loss Dollars Paid (Calendar/Historical) (000)
Loss Payments
Dollars Paid
$20,000,000
$18,000,000
$16,000,000
$14,000,000
$12,000,000
$10,000,000
$8,000,000
$6,000,000
$4,000,000
$2,000,000
$0
1978
1981
1984
1987
1990
1993
1996
1999
2002
2005


Total Policies in Force by Calendar Year
Policies in Force
Policies
6,000,000
5,000,000
4,000,000
3,000,000
2,000,000
1,000,000
-
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
1998
2000
2002
2004
2006


National Flood Insurance Program
Total Number of Policies in Force
AS OF SEPTEMBER 30, 2007
34,669
31,076
3,514
6,619
4,743
2,935
2,546
8,283
13,168
26,196
8,183
140,058
10,649
11,743
68,465
47,187
28,546
39,832
4,106
16,700
17,141
11,475
23,816
21,592
21,464
104,507
267,195
15,269
24,613
133,405
16,924
35,063
15,564
196,314
78,270
54,951
87,870
660,959
499,544
2,199,221
2,677
Alaska
56,668
Hawaii
64,481
Puerto Rico
2,614
Virgin Islands
Policies in Force
0 to 10,000
10,000 to 20,000
20,000 to 40,000
40,000 to 100,000
100,000 and Above
Policies in Force Small States
1,573: District of Columbia
3,265: Vermont
8,001: New Hampshire
14,977: Rhode Island
23,976: Delaware
35,597: Connecticut
48,797: Massachusetts
65,399: Maryland
221,879: New Jersey
Source Report: PIFW0902


National Flood Insurance Program
Total Number of Claims
OCTOBER 1, 2006 THRU SEPTEMBER 30, 2007
1,189
13
5
127
176
55
413
144
4
207
11
3,178
75
227
604
8
21
44
1,218
179
1,587
639
415
331
53
125
967
963
15
344
114
21
58
52
105
40
82
5,789
1,253
24
Alaska
86
37
12
Hawaii
Puerto Rico
Virgin Islands
Total Claims
0 to 50
50 to 100
100 to 1,000
1,000 to 15,000
15,000 and above
Total Claims Small States
0: District of Columbia
28: Delaware
45: Vermont
60: Maryland
124: Rhode Island
485: New Hampshire
542: Massachusetts
1,229: Connecticut
7,060: New Jersey
Source Report: W2RC1040


National Flood Insurance Program
Total Claim Payments
(THOUSANDS OF DOLLARS)
OCTOBER 1, 2006 THRU SEPTEMBER 30, 2007
28,894
79
34
2,554
2,473
6,220
4,772
0
2,361
332
18
59,170
716
3,287
4,195
15
105
629
6,929
699
26,271
15,063
10,135
5,491
223
995
14,342
85
3,809
25,261
549
1,100
64
1,850
665
268
295
104,592
22,452
4,693
261
Alaska
389
1,395
128
Hawaii
Puerto Rico
Virgin Islands
Total Payments
0 to 1,000
1,000 to 6,000
6,000 to 33,000
33,000 to 300,000
300,000 to 365,000
Total Payments - Small States
0: District of Columbia
104: Delaware
226: Vermont
500: Maryland
9,418: Massachusetts
9,860: New Hampshire
12,073: Rhode Island
16,207: Connecticut
152,561: New Jersey
Source Report: W2RC1040

Record Filing Systems

By Scott W. Cofoid, CFM
ISO / CRS Specialist

Editor's Note: In the following narrative, Mr. Cofoid details his observations and experience in working with many CRS communities in Michigan, Ohio, Indiana, Illinois, Wisconsin, and Minnesota as the Insurance Services Office (ISO) CRS specialist for FEMA's Region V states.

Recordkeeping is one of those tasks kinda like taking the trash to the curb for trash pickup day: something that needs to be done but is not a favorite chore of most people and often does not get completed as it ought to be. Recordkeeping of floodplain development throughout a community is one of those obligatory tasks of the NFIP that each participating community needs to remain diligent in doing. If your community is one where this task needs improving, then consideration in participating in the NFIP Community Rating System (CRS) might be worthwhile.

One key benefit a community normally enjoys from participating in the CRS Program is more formalized and better organized record filing systems. Whether it's Elevation Certificates, floodplain permits, map inquiry records, or drainage system inspection and maintenance records, a CRS community can normally lay their hands on those documents readily when asked. But I have noticed over the past few years during my cycle visits that a significant portion of "my" communities do not accomplish this feat so easily. Files are spread out everywhere, making preparation time and response time for the cycle verification very inefficient. Here are some ideas that I've seen work.

1. Make extra copies of those things you need for CRS at the time you are dealing with them and put them in a separate CRS file organized by Activity number (or name). Keep those CRS files organized by year.

2. Make extra copies of finished Elevation Certificates (ECs) and place them in folders organized by year.

3. Place all floodplain permits (and maybe even ECs) in blue file folders (water) so they are easily recognizable when looking for them.

4. Keep all LOMAs/LOMRs in a separate file that everyone in your office has access to, but identify on your FIRM (hard copy or GIS Program) the locations of those Map Changes.

5. Keep a copy of all ordinances you use for CRS purposes in a separate binder. Keep all adoption resolutions and amendments in that binder as well.

6. Create a checklist of activities you need to do annually (newsletters, direct mailings, 320 publicity, 360 publicity, 330 OPS or 510 annual progress reports, Rep Loss outreach). Keep them near your desk and mark them off when you complete them. Once you do them, place a copy of them in one of the separate CRS folders. For further detailed assistance with this issue, please ask me for a copy of the "CRS Record-Keeping Guidance" document we have.

If you are interested in learning more about recordkeeping and the CRS program, please contact Mr. Cofoid:

1126 Schuyler St.
Peru, IL 61354
Phone/Fax: (815) 220-1002
SCofoid@iso.com

Flood Resistant Design and Construction – ASCE Guide Helps Apply IBC (Michigan State Construction Code) in Floodprone Areas

from ASFPM News and Views

Michigan is one of the more than 40 states that have adopted a building code based on the model International Building Code®. Having a copy of ASCE 24, Flood Resistant Design and Construction [http://www.asce.org]. is an invaluable reference tool for administering Michigan's Construction Code. ASCE 24 is referenced in the section of the code that outlines requirements for buildings and structures in flood hazard areas. The most recent edition was published in 2005 (the first edition was dated 1998).

In addition, the International Residential Code® (Michigan Building Code) requires dwellings in floodways to be designed in accordance with ASCE 24. And the 2009 edition of the IRC will include an alternative that allows communities to require homes in V Zones to be designed in accordance with ASCE 24. Since the 2003 editions, FEMA has noted that the International Code Series has provisions that are consistent with the NFIP's regulations for buildings. The IBC's consistency is achieved partly by reference to ASCE 24. It is important to note, however, that ASCE 24 is not simply a restatement of all of the NFIP regulations. It includes some additional specificity, some additional requirements, and some limitations.

You can order ASCE 24 from http://www.asce.org (click on "publications" to reach the bookstore). FEMA's summary of ASCE 24-05 can be downloaded from http://www.floods.org/PDF/ASCE24_Highlights_1008.pdf. Here are a few notable highlights.

1. Freeboard is required as a function of the nature of occupancy and the flood zone. Dwellings and most other buildings have 1 foot of freeboard; certain essential facilities have 2 – 3 feet; only agricultural facilities, temporary facilities, and minor storage facilities are allowed to have their lowest floors at the base flood elevation (BFE).

2. Flood loads and other loads are as specified in ASCE 7.

3. Performance of foundations exposed to flood loads and load combinations is specified; soil characteristics and underlying strata, including soil consolidation, expansion or movement, erosion and scour, liquefaction, and subsidence all must be considered.

4. Fill is required to be stable under conditions of flooding, including rapid rise and rapid drawdown, prolonged inundation, and erosion and scour; structural fill compaction is specified or an engineering report is required; side slopes are required to be no steeper than 1:1.5.

5. Specifications for slabs-on-grade are listed, depending on the purpose and location of the slabs.

6. Two alternatives are specified for flood openings to allow for the automatic entry and exit of floodwaters in below-BFE enclosures: non-engineered openings that do not require certification (1 square inch per square foot of enclosed area), and engineered openings that must be certified by a registered design professional.

7. In V Zones and Coastal A Zones,
    a. Structures shall be supported on piles, columns, or shear walls (with shear walls limited in width and oriented parallel to the flow and wave direction).
    b. Mat or raft foundations, with columns extending upward, are permitted in limited circumstances.
    c. Foundation depth shall take into account erosion and scour.
    d. Walls designed to break away shall not produce debris that is capable of damaging structures (breakaway walls in Coastal A Zones require openings, while breakaway walls in V Zones do not).
    e. Mechanical, heating, ventilation, and air conditioning elements shall be located on the landward side of structures.

f. Erosion control structures (bulkheads, seawalls, revetments) shall not be attached to buildings, nor shall they focus or increase flood forces or erosion impacts on structures.
g. Decks, concrete pads, and patios shall be structurally independent of buildings and constructed to break away without producing damaging debris.
h. Pools shall be elevated, designed to break away without producing damaging debris, or sited to remain in the ground without obstructing flow that causes damage.

The Natural Hazards Center – Disaster Information Storehouse "A Great Resource"

Are you in need of or interested in learning what information is available regarding any aspect of disaster? Then here is your source – the Natural Hazards Center located at the University of Colorado at Boulder. It is a Center in the Institute of Behavioral Science, http://www.colorado.edu/hazards/ , hazctr@colorado.edu , (303) 492-6818. The Center is guided by a National Advisory Committee and has a core staff of eight full-time equivalent positions. The following History and Mission information is taken from the Center's website: Since 1976, the Natural Hazards Center has served as a national and international clearinghouse of knowledge concerning the social science and policy aspects of disasters. The Center collects and shares research and experience related to preparedness for, response to, recovery from, and mitigation of disasters, emphasizing the link between hazards mitigation and sustainability to both producers and users of research and knowledge on extreme events.

A basic goal of the Center is to strengthen communication among researchers and the individuals, organizations, and agencies concerned with reducing damages caused by disasters. More than a quarter century of cultivating discourse among these groups has placed the Natural Hazards Center center stage in both the national and global hazards communities.

The Center is funded by a consortium of federal agencies (Federal Emergency Management Agency, National Science Foundation, U.S. Geological Survey, National Oceanic and Atmospheric Administration, National Aeronautics and Space Administration, U.S. Army Corps of Engineers, the Centers for Disease Control and Prevention, and the U.S. Forest Service) and the Public Entity Risk Institute.

The Center is guided by a National Advisory Committee comprised of representatives of federal agencies that have an interest in hazards, as well as stakeholders from academia, state and local government, the private sector, and nongovernmental organizations. The Center has always promoted an all-hazards approach for dealing with environmental extremes and has been a leading proponent of cooperative partnerships among varying disciplines.

The Center carries out its mission through the following activities:

- Publishing the bimonthly newsletter, the Natural Hazards Observer, and the electronic biweekly newsletter, Disaster Research;

- Maintaining a Web site of updated information on upcoming conferences and links to publications, organizations, and other internet resources for hazards research and practice;

- Maintaining one of the largest library collections in the world of social science literature focused on natural hazards and extreme events, as well as our searchable online database, HazLit;

- Hosting the annual invitation-only Hazards Research and Applications Workshop;

- Participating in separately funded multidisciplinary research initiatives that are consistent with the Center's mission and provide hands-on research training to graduate students;

- Publishing books, reports, and papers on hazards research and emergency management practices available for free on our Web site;

- Administering the Quick Response Program, which provides funds for researchers to travel to the site of a disaster soon after it occurs to gain valuable information concerning immediate impact and response;

- Cosponsoring the publication of the Natural Hazards Review with the American Society of Civil Engineers; and

- Moderating the Disaster Grads listserv to bring graduate students interested in hazards together in an online forum.

The Natural Hazards Center works to strengthen communication between the hazards academic and applications communities to improve the implementation of hazards mitigation and emergency management programs. It is a widely recognized resource for researchers and practitioners who wish to obtain the most current knowledge available to solve hazards-related problems.

The Center accomplishes its work through four major activities: information dissemination, an annual workshop, information services, and research. The bulk of the Center's work is supported by a National Science Foundation (NSF) grant (CMS-0080977). In fiscal year 2005, seven other federal agencies (U.S. Army Corps of Engineers, Centers for Disease Control and Prevention, Federal Emergency Management Agency, U.S. Forest Service, U.S. Geological Survey, National Aeronautics and Space Administration, and National Oceanic and Atmospheric Administration) contributed funds to NSF to support this grant. The Center also receives financial support from the Public Entity Risk Institute. The Center also generates income through various service contracts, sale of publications and other products, and workshop registration fees.

NFIP Property Coverage

Have you heard statements made about what property is and is not covered by the National Flood Insurance Program (NFIP) and then questioned how accurate those statements were? Well, that bottom line is addressed by the federal regulations for the program and are specifically detailed by Appendix A(1) to Part 61, 44 CFR, Insurance Coverage and Rates. These same details are found in each written NFIP policy and are, therefore, available to the policy holder for review.

Contained within this part are Appendices A(1) thru A (6), which is the boiler plate for the "Standard Flood Insurance Policy". Part IV of the Appendix A boiler plate identifies "Property Not Covered" as follows:

IV. Property **Not** Covered

We do **not** cover any of the following:

1. Personal property not inside a building;

2. A building, and personal property in it, located entirely in, on, or over water or seaward of mean high tide if it was constructed or substantially improved after September 30, 1982;

3. Open structures, including a building used as a boathouse or any structure or building into which boats are floated, and personal property located in, on, or over water;

4. Recreational vehicles other than travel trailers described in the Definitions section (see II.B.6.c.) whether affixed to a permanent foundation or on wheels;

5. Self-propelled vehicles or machines, including their parts and equipment. However, we do cover self-propelled vehicles or machines not licensed for use on public roads that are:
    a. Used mainly to service the described location or
    b. Designed and used to assist handicapped persons, while the vehicles or machines are inside a building at the described location;

6. Land, land values, lawns, trees, shrubs, plants, growing crops, or animals;

7. Accounts, bills, coins, currency, deeds, evidences of debt, medals, money, scrip, stored value cards, postage stamps, securities, bullion, manuscripts, or other valuable papers;

8. Underground structures and equipment, including wells, septic tanks, and septic systems;

9. Those portions of walks, walkways, decks, driveways, patios and other surfaces, all whether protected by a roof or not, located outside the perimeter, exterior walls of the insured building or the building in which the insured unit is located;

10. Containers, including related equipment, such as, but not limited to, tanks containing gases or liquids;

11. Buildings or units and all their contents if more than 49 percent of the actual cash value of the building is below ground, unless the lowest level is at or above the base flood elevation and is below ground by reason of earth having been used as insulation material in conjunction with energy efficient building techniques;

12. Fences, retaining walls, seawalls, bulkheads, wharves, piers, bridges, and docks;

13. Aircraft or watercraft, or their furnishings and equipment;

14. Hot tubs and spas that are not bathroom fixtures, and swimming pools, and their equipment, such as, but not limited to, heaters, filters, pumps, and pipes, wherever located;

15. Property not eligible for flood insurance pursuant to the provisions of the Coastal Barrier Resources Act and the Coastal Barrier Improvement Act and amendments to these Acts;

16. Personal property you own in common with other unit owners comprising the membership of a condominium association.

The same appendix details what property is covered by the NFIP.

The Section 1316 Compliance Tool

The longer one is involved in enforcement of regulations, the greater becomes the chance that you will have a situation where you have used all the standard ways and means to acquire the cooperation from the perpetrator and achieve a resolution of the subject violation. In the world of the floodplain management and the NFIP, there is one tool that remains available to facilitate cooperation. That is the application of Section 1316 of the National Flood Insurance Act of 1968.

There is not a specific form used for this process. Exercising Section 1316 of the NFI Act is considered a last resort to invoke when all else has failed. Using Section 1316 is not a solution to the issue. It is a tool to use to cause a more urgent incentive to correcting the violation. Part 73 of 44 CFR guides the implementation of Section 1316, which will result in the denial of flood insurance coverage until the violation has been resolved.

Local communities and the state can request 1316 implementation by FEMA. To do so involves a declaration by the community or the state which shall consist of:

1. Names of the property owner(s) and address or legal description of the property sufficient to confirm its identity and location;
2. Clear and unequivocal declaration that the property is in violation of a cited state or local law, regulation, or ordinance;
3. Clear statement that the public body making the declaration has authority to do so and a citation to that authority;
4. Evidence that the property owner has been provided notice of the violation and the prospective denial of insurance; and
5. Clear statement that the declaration is being submitted pursuant to Section 1316 of the NFI Act of 1968, as amended.

In addition to this declaration requirement, the file needs to clearly document a concerted effort to consider all means to achieve an acceptable resolution and due process has been provided to the owner. There needs to be documentation that the owner has been given timely and sufficient notice of the violation, sufficient time to propose and receive approval of a resolution, sufficient time to commence and complete the resolution, and sufficient notice that failure to complete will subject the owner to implementation of Section 1316.

FEMA headquarters supports the use of this tool as long as the community/state can clearly demonstrate every effort has been made to no avail and due process has been afforded to the owner.

Not many 1316s get implemented across the country. However, it is fair to expect FEMA Regions to work with the states and local communities to implement the section as long as it can be demonstrated that all other options have been attempted and due process has been provided.

CHAPTER MEMBERSHIP
MICHIGAN STORMWATER-FLOODPLAIN ASSOCIATION
MEMBERSHIP FORM

Name _____ Representing _____
Address _____ City/State/Zip _____
Telephone ( ) _____ E-mail _____ New ____ Renewal ____

MICHIGAN STORMWATER-FLOODPLAIN ASSOCIATION CHAPTER RENEWAL = $35.00 per calendar year. Please complete this portion for state association membership. The state association has no provision for accepting credit cards. Questions may be directed to Roger S. Clark, MSFA Treasurer, 517-853-0221 or msfatreas@yahoo.com . Please mail this form and your check to P.O. Box 14265, Lansing, MI 48901-4265.

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Flood News for Michigan Floodplain Managers

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