

Florida SHMPoints

Providing insightful mitigation news and information from around the State of Florida.

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National Flood Mitigation Fund

By: Joy Duperault

Florida has utilized three flood mitigation assistance programs; Flood Mitigation Assistance, Severe Repetitive Loss, and Repetitive Loss Properties; in an aggressive fashion throughout the state, but particularly in areas where severe repetitive loss properties are found. Obviously, the goal of these programs is to reduce risk of flood damage through building modifications, drainage projects, and flood-plain management planning activities.

FEMA's continued attempt to unify program elements such as project eligibility, application requirements, and grant process guidance is admirable, and Florida looks forward to the new evolution of the programs as established in the 2012 National Flood Insurance Program (NFIP) Reform Act.

The Act (called the Biggert-Waters Flood Insurance Reform Act of 2012, found in H.R. 4348) consolidates the three NFIP funded mitigation programs into a single program. The combined "National Flood Mitigation Fund" is to be funded at \$90 million per year.



The old FMA and pilot SRL programs were each funded annually at up to \$40 million per year and the RFC program was funded at up to \$10 million annually. Unfortunately, the SRL program was never fully utilized, in part due to its complexity.

The new program simplifies and combines the three previous programs and includes the following elements:

- Encourages flood mitigation planning to be integrated into the community's multi-hazard mitigation plan
- Adds demolition/rebuild (mitigation reconstruction) as an allowable mitigation activity under all programs
- Caps the use of mitigation grant funds for mitigation planning activities at \$50,000 to states and \$25,000 for communities
- Provides for denial of grant funds if not fully obligated in 5 years
- Restructures the federal share requirement:
 - Up to 10% for severe repetitive loss structures (4 or more claims of over \$5000 or 2 or more claims exceeding value of structure)
 - Up to 90% for repetitive loss structures (2 claims over 10 years averaging at least 25% of the value of structure)
 - Up to 75% for other approved mitigation activities

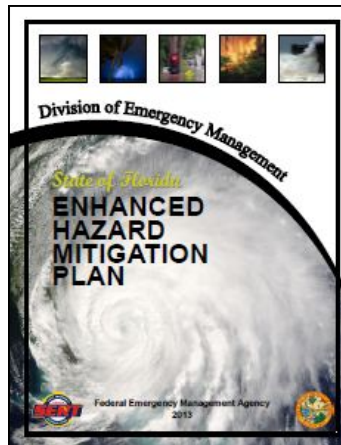
It is this last piece that most interests Florida, as this change demonstrates an encouraging federal focus on mitigating properties that most frequently and severely experience flood damages.

2013 Enhanced State Hazard Mitigation Plan

By: Alison Kearns

The purpose of the State Hazard Mitigation Plan (SHMP) is to reduce death, injuries and property losses caused by natural or man-made hazards. This plan identifies hazards based on the history of disasters within the state and lists goals, objectives, strategies, and actions for reducing future losses. Implementation of planned, pre-identified, and cost-effective mitigation measures not only helps reduce losses to lives, property and the environment but it streamlines the disaster recovery process.

According to federal regulations, all state hazard mitigation plans must be updated every three years. The last SHMP in Florida was approved in 2010, which means another plan



must be approved and adopted in 2013. Over the past year and a half, coordinated efforts from mitigation planning staff, representatives from federal, state, local and private agencies, FSU interns, and the general public were collected to provide a comprehensive plan for hazard mitigation.

As of January 18, 2013, a final draft of the 2013 Enhanced SHMP, currently at 1,485 pages, was placed online for public comment before being submitted to FEMA in early February. The draft is available on <http://www.floridadisaster.org/Mitigation/State/Index.htm> and comments will be accepted at dem-shmpat@em.myflorida.com until the end of business on January 31, 2013.

Loss Avoidance Calculators

By: Laura Herbert and Carly Foster

Showing the cost effectiveness of mitigation helps justify the use of future funds to mitigate structures and infrastructure. There is no simpler way to express the benefits of mitigation than to show losses that would have occurred without it. Loss avoidance assessment is one method used to quantify the value of mitigation.

In order to substantiate the impact mitigation activities can have, the State of Florida funded the development of four loss avoidance calculators, each in varying stages of release. The calculators are the Flood Mitigation Building Modification Calculator, the Drainage and Special Projects Calculator, the Advanced Drainage Calculator, and the Wind Mitigation Calculator.

The development and distribution of the loss avoidance calculators along with its guidance

will help the State of Florida and its partners to conduct a loss avoidance assessment after every presidentially declared disaster. In addition, Florida has strived to make the calculator simple enough to use that partners may be motivated to use it to perform loss avoidance assessments during non-declared disasters. The current version of each of these calculators operates within Microsoft Excel 2010.

The State of Florida wanted to make the calculator available to other states, as well as local and regional entities so that they may also substantiate the value of mitigation. As the calculators become available, they will be placed on the Division of Emergency Management's website. The calculators and guidance information can be found at <http://www.floridadisaster.org/Mitigation/SMF/Index.htm>.

Community Mitigation in Public Private Partnership

By: Christopher Holsinger

Public Private Partnerships in mitigation consist of measures that can speed along the short term economic recovery process. Creating partnerships between private businesses and public entities results in a more efficient exchange of resources, information, and other essential needs. The first step in creating these partnerships is for the local emergency manager to bring the private businesses and public entities together. This is possible by having the community set up disaster planning meetings where business and organizations can attend. These meetings, should focus on emphasizing the mutual and symbiotic benefits of these partnerships. Entities can work together in an effort to boost the economy after a disaster. It is important that businesses have a conversation about their essential needs before and after disaster in order to ensure a quicker recovery.

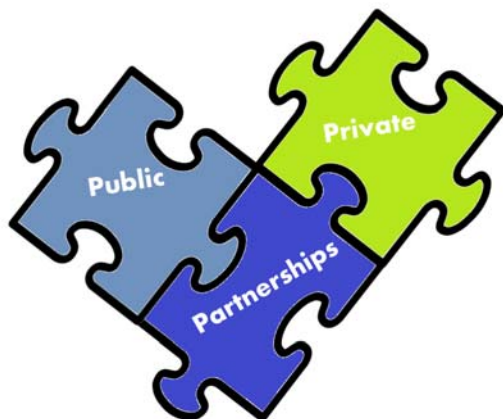
In 2006, the West Palm Beach emergency manager held a disaster planning meeting. This meeting was very well attended by local businesses. In this meeting, the leaders were able to group businesses that had the same essential needs as others, which helped to foster partnerships among the businesses. Currently, these partners exchange information on situations before and after a disaster. They also exchange supplies, and help each other with storage if either one is damaged and



unable to inhabit. Many of the partnerships formed as a result of this meeting still exist and many other businesses have joined in an effort to mitigate their businesses and communities.

In order to successfully implement Public Private Partnerships, participants must understand that they are working in these partnerships within different sectors (healthcare, tourism, retail, etc.). Even though they are in different sectors, the main goal is to bring the economy as a whole back to full capacity after a disaster. If it isn't a community wide effort, it cannot work. Creating these partnerships as a mitigation effort is a struggle. Without an event or disaster in recent history, it is hard to get businesses to prepare for something they don't see as an immediate threat to them. It is paramount that the benefits of the partnership are explained during these disaster planning meetings in order to get as much buy-in as possible. The more buy-in that a community has the more effective the mitigation efforts. If the mitigation efforts aren't effective, then the preparedness and response efforts will take much longer.

Public private partnerships can be a valuable tool in disaster preparedness and recovery. Successful partnerships can help communities be prepared before a disaster strikes, and can shorten the length of recovery time. Communities should focus on encouraging these partnerships through events such as disaster planning meetings.



Hazard Profile: Solar Storms

By: William McCusker

The term solar storm, part of space weather, can refer to a solar flare, geomagnetic storm, or a Coronal Mass Ejection (CME). A solar flare refers to a large explosion in the sun's atmosphere while a CME is a massive burst of solar wind sometimes associated with a flare. A geomagnetic storm is the interaction of the sun's outburst with the Earth's magnetic field. Geomagnetic storms can occur at any point in the solar cycle, and not all solar flares or coronal mass ejections will trigger a storm. Sunspots are where solar flares and CME's originate. The frequency and placement of sunspots visible on the Sun occurs every 11 years. The full solar cycle consists of two periods of 11 years each, demarcated by a reversal of the sun's polarity.

There have been several significant historical solar events, one of which was particularly severe. In September of 1859, electrical currents surged through telegraph lines and blew out the batteries that supplied power. Telegraph operators were stunned by arcs of electricity leaping from their equipment. The debate over the connection between solar activity and geomagnetic storms went unresolved until 1959 when the soviet's Luna 1 satellite finally confirmed the existence of the solar wind.

Another storm as large as the 1859 event could disable the entire electric power grid in Eastern Canada and Eastern United States. The reason for this is that geomagnetically induced currents or ground inducted currents (GIC's) enter power grids, pipelines and other conducting networks through grounding wires. Pipelines at high latitudes are affected by GIC's driven by modest levels of auroral activity occur almost daily. It is now understood that GIC flows through the ground to depths of 20 km or more during geomagnetic storms which means buried utility systems are susceptible as well as everything above ground such as aircraft and satellites.



Of major concern to emergency managers is the fact that of all the parts of the power grid, high voltage transformers are among the most likely to fail in a geomagnetic storm and are among the most difficult to replace. If a big storm were to knock out many transformers at one time, manufacturers couldn't replace them quickly as there is no stockpile. A 345 kilovolt or higher voltage transformer can weigh 200 tons, cost \$10 million and take several weeks to assemble, test and transport. Also, many transformers in service today were manufactured 40 years ago and are approaching their end of service life. These older transformers having been exposed to numerous geomagnetically induced currents and possible over-heating over the years are thereby more likely to fail.

There are several warning systems that exist for solar storms, however the warning time is short with only a few days notice at most. One of these warning systems is the Space Weather Prediction Center (SWPC). SWPC provides real-time monitoring and forecasting of solar and geophysical events which impact satellites, power grids, communications, navigation, and many other technological systems via email to any and all subscribers. For access please go to the following website: <https://pss.swpc.noaa.gov/LoginWebForm.aspx?ReturnUrl=%2fproductsubscriptionsservice%2f>.

Success Story: New Smyrna Beach Efforts Saving Citizens Money

Provided by: FEMA

The City of New Smyrna Beach had many floodplain management issues, including a long list of repetitive loss properties that had been repeatedly damaged from flooding.

New Smyrna Beach joined the National Flood Insurance Program's (NFIP) Community Rating System (CRS), a voluntary program that allows participating communities to benefit financially from enacting policies or performing activities to reduce or eliminate flood risks. As its CRS rating improves by one level, the community earns a 5% reduction in flood insurance premium costs for their citizens.

The CRS, for example, provides points for removal of repetitive loss properties from the floodplain. There are a number of mitigation methods that can be used: increasing the elevation of a threatened structure; relocation of a structure outside the floodplain; or acquisition and demolition of a structure. Once a structure has been removed from the floodplain as part of a mitigation plan, under the NFIP guidelines the land can never again be utilized for development. As much as possible the property must be returned to its



natural state and, from that point on, only be used as open space or as water retention/flood control area.

The city also pursued grants through the Federal Emergency Management Agency's Hazard Mitigation Grant Program (HMGP) to help fund mitigation efforts. The HMGP provides States, Tribes, and local communities with grant monies to perform mitigation activities. Grants are provided from Federal funding and are administered by the State. HMGP grants are given on a cost-share basis, with the Federal portion amounting to 75%. This leaves the remaining 25% the responsibility of the recipient, be that the State, local government, or individual homeowner. Grants are awarded for actions or activities that significantly reduce or eliminate future risk to lives and property from natural hazards.

New Smyrna Beach officials have acquired and removed several repetitive loss properties from the floodplain. In addition, they have undertaken a massive flood control project covering several of the flood-threatened neighborhoods. Designed as a three-stage process, two of the stages were paid for with Federal grant assistance while the city paid for the third through local funding. The project involves property acquisitions, drainage improvements, and the creation of water storage areas in a number of locations.

Currently, New Smyrna Beach's efforts have improved its CRS rating to level seven, which nets the city's residents a 15% reduction in their flood insurance premiums.

For more information on this and other mitigation success stories, visit <http://www.fema.gov/mitigation-best-practices-portfolio>.

Want to know more about an article? Contact us!

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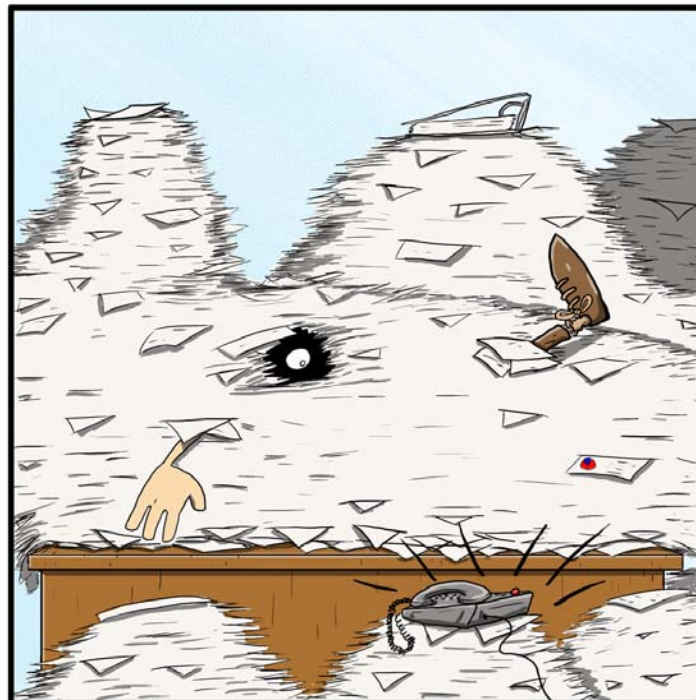
The Bureau of Mitigation

Mitigation is an integral part of the Division of Emergency Management. Mitigation actions reduce or eliminate the loss of life and property by lessening the impact of disasters. Due to Florida's weather, geography, and miles of coastline the state is highly vulnerable to disasters. Disasters can be very costly to citizens and government.

The Bureau of Mitigation administers several federal mitigation grant programs including the Hazard Mitigation Grant Program, Pre-Disaster Mitigation Program, Flood Mitigation Assistance Program, Severe Repetitive Loss Program and the Repetitive Flood Claims Program. The Bureau also administers the Residential Construction Mitigation Program, a state mitigation grant program.

If you would like to know more please visit:

<http://www.floridadisaster.org/Mitigation/index.htm>



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Johnson!! You got that plan updated yet?!