

# Florida SHMPoints

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

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## Climate Resilient Mitigation Activities

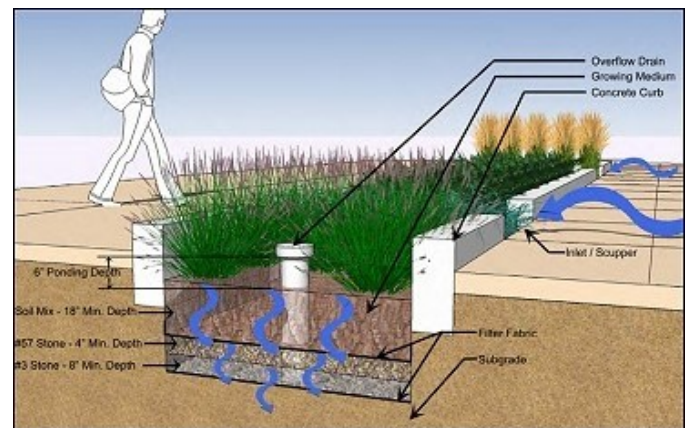
By: Alexander Falcone

As a result of the President's Executive Order 13653 Preparing the United States for the Impacts of Climate Change; the President's 2013 Climate Action Plan and several additional initiatives the Federal Emergency Management Agency (FEMA) has released new guidance related to climate change and climate resilient mitigation activities. Available through the FEMA website, these fact sheets identify several prioritized climate resilient mitigation activities. These activities include: Green infrastructure methods, and three flood reduction and drought mitigation activities: Aquifer Storage and Recovery (ASR), Floodplain and Stream Restoration (FSR), and Flood Diversion and Storage (FDS). FEMA urges communities to use this information when developing projects for HMA assistance.

**Green Infrastructure:** One of the first type of projects FEMA highlights are those which use Green infrastructure methods. These projects use "an ecosystem-based approach to replicate a site's pre-development, natural hydrological function" (FEMA Fact Sheet). Essentially, most "gray infrastructure" aims at moving storm water away from structures as fast as possible. Green infrastructure focuses on using the natural and beneficial functions of the property. Green infrastructure projects can include channeling water into a basin or ditch where it can then seep or infiltrate into the ground to recharge underground water supplies. These types of projects will reduce the volume of flood water into storm water systems and rely on the natural landscape to handle much of the load, resulting in less stress down the line.

**Flood Diversion and Storage:** This method urges "diverting floodwaters from a stream, river, or other body of water into a wetland, floodplain, canal, pipe, or other conduit (e.g., tunnels, wells) and storing them in above-ground reservoirs" (FEMA Fact Sheet). This method of mitigation focuses on different ways to store and handle large quantities of floodwater using natural systems. FEMA has identified five types of Flood Storage Areas/Reservoir which are outlined below.

- Online: Both dry and wet weather flows pass through the flood storage area



*New York used a Department of Environmental Protection grant to build green infrastructure throughout the city.*

- Offline: Dry and first-flush wet weather flows pass through the flood storage area. Larger flows bypass the facility.
- Dry: The flood storage system is kept essentially dry due to infiltration and evapotranspiration.
- Wet: The flood storage area contains water under all flow conditions.
- Wet/Dry: Part of the flood storage area contains water and part is dry during various flow conditions.

One of the biggest benefits of Flood Diversion and Storage is that these processes often can recharge water supplies and mitigate against the future impacts of drought.

**Aquifer Storage and Recovery:** This method involves capturing water from various sources when it is plentiful (storm water, snow melt etc.) and storing the water in subsurface brackish aquifers for use later. This method, when executed properly is able to recharge ground water supplies and can allow for recovery of water when needed. Typically, water can be stored using infiltration or an injection well for confined systems and "mixed" in open systems. Mostly groundwater or treated surface water is injected into the aquifers although in rare cases untreated water may be used depending on site circumstances. The major benefit of this

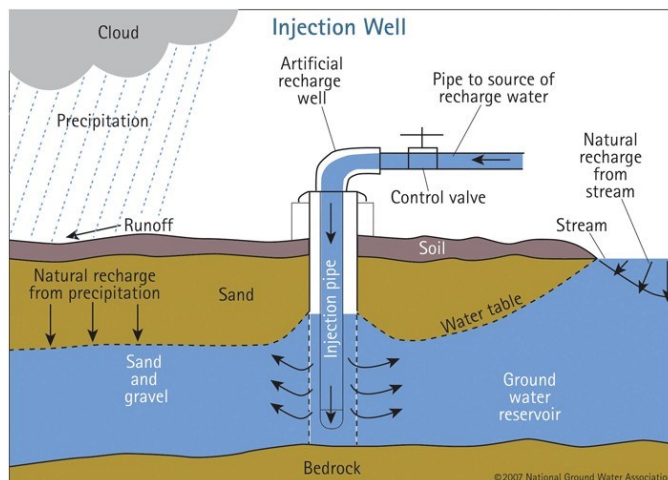
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type of mitigation is that it can provide much needed water during drought conditions and recharges an ecosystem's natural water supply.

**Floodplain and Stream Restoration:** This method of mitigation focuses on returning the natural habitat to its pre development state. Floodplains provide a beneficial function in our communities by handling excess storm water, providing natural habitats for various species, and recharging our communities water supply. Floodplain and Stream Restoration projects seek to return the Floodplain to its natural state; thus alleviating flooding or other community problems as a result of increased development. Some examples of this include urban stream renewal, or designing development to compliment the floodplain. This is a good mitigation option to consider during disaster recovery when redevelopment is being discussed, and natural systems may be returned to their pre-development state.

More information on these activities can be found here:  
<http://www.fema.gov/climate-resilient-mitigation-activities-hazard-mitigation-assistance>



*Injection wells are a type of aquifer storage and recovery activity.*

## State Floodplain Management Office Update

By: Steve Martin

Florida's Floodplain Management Office is ramped up, and charging ahead with its strategy to support all Florida communities' flood resiliency and participation (or advancement) in the NFIP Community Rating System (CRS). Collaborating with FEMA Headquarters and Region IV staff to establish the two-year *CRS-CAV (Community Assistance Visit) Pilot Program*, the SFMO has succeeded in visiting 54 non-CRS participating communities between July 1 and December 30 to conduct technical assistance and compliance reviews, and CRS checks for possible credit points. Among the significant values of the Pilot Program, the State has been able to visit communities that have not had the benefit of a Community Assistance Visit in 20 years or more.

To accomplish this amazing feat, since the 2015 annual FFMA meeting, the State office has hired three floodplain management staff with various levels of experience in floodplain and emergency management. These dedicated staff look forward to meeting more of the floodplain community at the upcoming FFMA annual meeting this March in St. Augustine. Our new staff, Mr. Jay Anderson, Mr. Mike DeRuntz, and Ms. Emily Hatcher along with Jason Smalley, State Floodplain Coordinator, have teamed up with our CRS staff to conduct joint visits to promote sound floodplain

management procedures and a streamlined process for participating in CRS. To augment staff of the SFMO we have also engaged the services of seasoned CFMs with the ARCADIS firm through our contract with Thomas Howell Ferguson P.A., both organizations having offices in Tallahassee. The State and FEMA team anticipate enabling dozens of Florida communities to participate in CRS by October of this year.

The key feature enabling non-participating communities to become eligible to participate in CRS through the streamlined process (under the Pilot Program), is the *Seven Performance Measures* package. Adopted by resolution, communities commit to implementing the package which includes the State model flood ordinance and six other basic procedures to help communities effectively meet minimum NFIP requirements. Essentially, the package is a tool kit that addresses common floodplain management deficiencies and provides procedures and forms that self-guide floodplain staff on how to ensure compliance with the NFIP. The Seven Performance Measures package is a great resource for all communities and its fillable forms can be downloaded at the State Floodplain Management website at: <http://www.floridadisaster.org/mitigation/CRS-CAV-pilotprogram/>

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The *Seven Performance Measures* package includes the following:

- 1) Adopt State model flood ordinance coordinated with FBC (link to ordinance and instructions)
- 2) Conducting annual floodplain tours to verify compliant development (inspection forms provided)
- 3) Use of flood zone permit applications & checklists (sample permit forms provided)
- 4) Confirm accuracy of elevation certificates during construction and at CO (links to instructions)
- 5) Send letters annually to fuel tank and HVAC contractors to elevate & anchor tanks (letter, instructions provided)
- 6) Implement procedures for determining Substantial Improvement/Substantial Damage (procedures and forms provided)
- 7) Post or link Elevation Certificates and DFIRMS on community websites.

For communities not participating in CRS that would like to find out how to schedule a visit and to join the growing ranks of communities that benefit from improved resiliency and lower NFIP premium rates, please contact Mr. Josh

Overmyer at 850-519-7955 or via e-mail (found on the back cover).

The SFMO continues to closely coordinate with communities that have not yet adopted the State model flood damage prevention ordinance that is coordinated with the Florida Building Code (FBC). Most Floodplain Administrators know that with the NFIP flood building standards and the American Society of Civil Engineers' *Flood Resistant Design and Construction* guidance incorporated in the FBC, communities that have not yet adopted the model flood ordinance have local flood ordinances that are considered to be inconsistent with the FBC and State law.

As time permits, staff continue to be engaged in providing training, attending preliminary flood map meetings, serving on the FEMA/FDEM Public Restroom Task Force, the CRS Task Force, ASFPM Natural and Beneficial Functions of Floodplains committee, and providing on-demand technical assistance to a myriad of customers including citizens, communities, State government agencies, and insurance companies.

## HMA Cost Share Guide Review

By: Alexander Falcone

When we first hear that our grant application to FEMA has been approved and funding is on the way, we are filled with hopeful exuberance at the possibilities for our community. For some projects the reality is that a federal grant is the only path to completion, especially in low to moderate income areas. This initial excitement is often swiftly grounded when cost share requirements are considered.

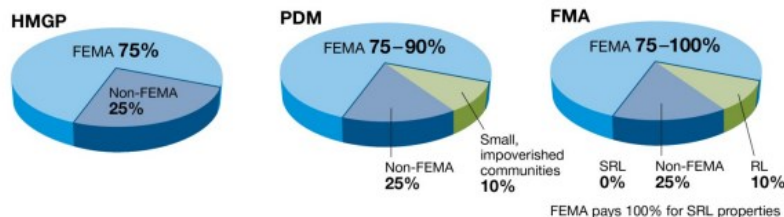
Luckily, FEMA has recently released additional guidance to assist communities in determining eligible cost share activities and sources. There are several channels for funding including: Cash, Donated Resources, Department of Housing and Urban Development Community Development Block

Grant Funds, Government Loans (SBA, USDA), and Increased Cost of Compliance (ICC) Funds. Each of these has its unique advantages and constraints.

The Hazard Mitigation Assistance Cost Share Guide details each of these sources and the impacts that they will have during the grant management cycle for your project. Additional information is provided discussing (ICC) which is available through an impacted homeowner's National Flood Insurance Program policy. This allowance, up \$30,000, can be used as a portion of cost share during elevation projects.

Another aspect to check out is the Duplication of Benefits

HMA Program Cost Sharing Requirements (Federal/Non-Federal Share)



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Considerations. An important item when determining cost share is to make sure you are not using funding to cover an issue meant to be covered by another source. For example: if NFIP policy money will be left over after a project this money should be used first, before another grant is used to cover costs etc.

Essentially what this boils down to is eligibility. Are funds eligible for use as a cost share element? If they are, then use them first! If not, then an alternate solution should be sought out.

Finally, a good section to look into, and something for our more technically savvy grant managers, is the Hazard Mitigation Grant Program Global Match. For HMGP projects, the cost share for local governments is 25%. However, this cost share doesn't necessarily have to come from local sources so long as the total overall federal share does not exceed 75% of the project costs.

For more information, you can download the Hazard Mitigation Assistance Cost Share Guide here: <http://www.fema.gov/media-library/assets/documents/117020#>

## A Walk in Your Shoes

By: Jamie Leigh Price

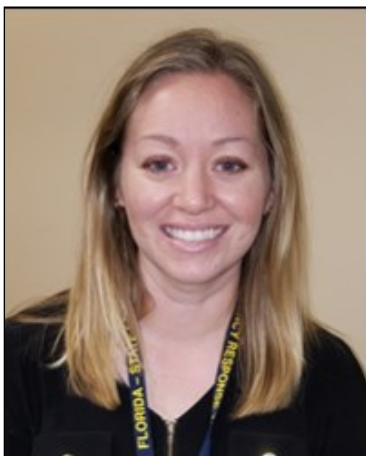
For the past 26 months the FDEM Mitigation Planning Unit has focused on providing technical assistance, reviewing, and approving county Local Mitigation Strategies. Now it is time for us to take a walk in your shoes.

The Florida Enhanced State Hazard Mitigation Plan will expire in August 2018. With that in mind, we have been working to regroup the State Hazard Mitigation Plan Advisory Team. We have looked at our existing list and identified organizations we would like to invite to join for the next update. Over the next few months we will contact these organizations and identify representatives to attend our Kick

Off Meeting on September 13th. Meanwhile, our unit will be reading the plan and identifying areas that need to be updated, removed, and added. We welcome any suggestions to the current plan for our consideration as the update begins.

Please be on the lookout for information requests from our office on ways for you all to contribute. One of the many appendices to our plan is an LMS Process After Action Report which we will begin gathering information on shortly. We hope everyone will take the time to answer the questions and help us continue to improve this process.

## Meet Melissa



The Florida Division of Emergency Management welcomes Melissa Schrader to the Bureau of Mitigation as a planner. Melissa started her DEM career as an intern and later worked full time in the State Watch Office. She is currently in her last semester at Florida State University obtaining a

Master in Public Administration specializing in emergency management and homeland security.

Prior to living in Tallahassee, she received her undergrad from Florida Atlantic University in Urban and Regional Planning in Ft. Lauderdale. Melissa looks forward to continuing her education and building relationships with locals across the state. She will be the LMS Liaison for regions 3 and 4.

When she isn't reviewing LMS plans, Melissa enjoys walking her dog at parks, painting, and hunting!

# Florida HAZUS-MH Initiative

By: Melissa Schrader

Hazus—Multi-Hazard is an extension of ArcGIS. It utilizes specific county data, including mitigation projects, in order to determine impact devastation of a given disaster. It is a detail-oriented analysis that utilizes inputs to generate a detailed output assessment. Inputs such as infrastructure types, essential facilities, utilities, demographics and agriculture are transformed into a detailed, meaningful output that provides impact and damage assessment capabilities for its users thus, making emergency managers more aware of potential disaster vulnerabilities and provides meaningful mitigation opportunities. The software is free to download from FEMA's website and trainings are offered at FEMA's Emergency Management Institute in Emmetsburg, Maryland. Hazus-MH's primary purpose is to provide detailed risk assessments for mitigation purposes. The program is also widely used for plan updates including Local Mitigation Strategy (LMS) plans.

The Florida Division of Emergency Management is looking to bring Hazus-MH training to our county emergency managers. Basic Hazus-MH is a prerequisite course that will be a Florida-focused version of the standard course. We will



also offer a series of potential additional courses including emphasis on flood, hurricane, comprehensive data management, applications for risk assessment, and disaster operations. We plan on having a main Tallahassee location with satellite locations around the state for maximum accessibility. So far, Florida Regions 2, 5, 6, and 7 have expressed interest in hosting a course.

This initiative is currently in the planning stages and we will keep all stakeholders involved throughout the process. To be included on future updates about the Florida Hazus Initiative, if you have an interest in attending a Florida Hazus User Group (FLHUG) meeting, or if you are interested in hosting a course, please email Melissa Schrader (email on back cover) with your name, email, title, and agency and you will be added to the distribution list.

More information on Hazus-MH can be found here:

<http://www.fema.gov/hazus>

More information on trainings at EMI can be found here:

<http://www.fema.gov/hazus-mh-training>

## *Congratulations!*

**Alachua, Bradford, Hamilton, Holmes, Jackson, Jefferson, Levy, Madison, Marion, Santa Rosa, Union, and Wakulla Counties completed the LMS update process.**

**Their new plans expire in 2021.**

**Flagler, Glades, Liberty, Okaloosa, and St. Lucie Counties achieved Approved Pending Adoption Status.**

# Need More Information?

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## The Bureau of Mitigation

Mitigation is an integral part of the Florida Division of Emergency Management (FDEM). 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 both the citizens and government.

Under the direction of Division Director Bryan W. Koon and State Hazard Mitigation Officer, Miles E. Anderson, the Bureau of Mitigation administers several federal mitigation grant programs including the Hazard Mitigation Grant Program, the Pre-Disaster Mitigation Program, and the Flood Mitigation Assistance Program. The Bureau also administers a state funded mitigation program called the Residential Construction Mitigation Program.

If you would like to know more about mitigation in Florida please visit: [www.floridadisaster.org/mitigation](http://www.floridadisaster.org/mitigation).



Current Update Cycle	
Approved	55
Approved Pending Adoption	7
Expired	2
Complete	39

The Florida Flood Risk Information System (FRIS) is now live!

<http://fris.nc.gov/fris>

Take the time to look at the information this helpful tool can provide for flooding in your area.