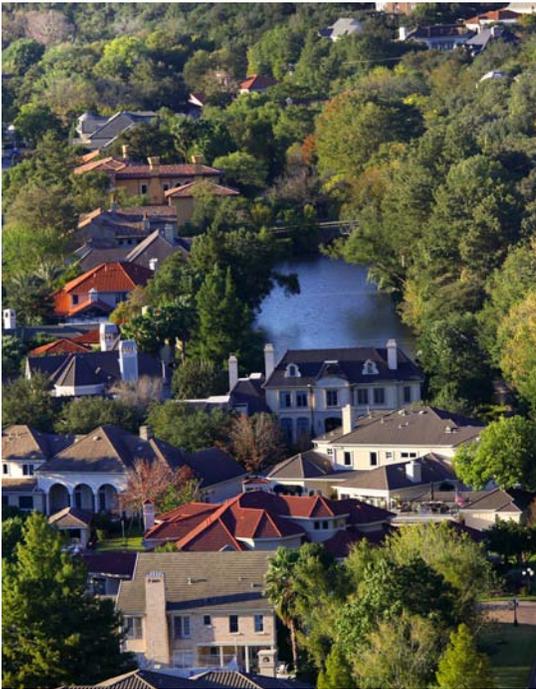




**FEMA Region 6
Risk MAP News and Information**
June 2011 Volume 4



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LINKS OF INTEREST:

- www.riskmap6.com
- www.txchart.com
- www.rampp-team.com/fact_region6.htm
- www.lamappingproject.com
- www.floodsmart.gov/toolkits
- www.fema.gov/hazard/flood
- <http://msc.fema.gov>

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**Mitigation Grants:
Your Questions Answered Here!**

How many mitigation grant programs does FEMA offer?

The Federal Emergency Management Agency (FEMA) has five grant programs to help communities reduce loss of life and property: Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation (PDM), Flood Mitigation Assistance (FMA), Repetitive Flood Claims (RFC), and Severe Repetitive Loss (SRL).



Who can apply for these mitigation grants?

Local governments and communities may apply as a sub-applicant through a State, Territory, or tribal government. State agencies, tribal governments, and in some cases, private nonprofits, may also apply as sub-applicants. Individuals are not eligible to apply for these grant programs.

What does a community have to do in order to be eligible for these mitigation grants?

A community must participate in the National Flood Insurance Program (NFIP), if a project is located in a floodplain, and must have a current Mitigation Plan which meets the requirements of 44 CFR Part 201.

My community does not participate in the NFIP and/or has no Mitigation Plan, so why bother applying for these mitigation grants?

FEMA can help you join the NFIP! Contact the Region 6 Floodplain Management and Insurance Branch at 940-898-5127 to be directed to a specialist who can assist you. Two of FEMA's mitigation grants programs, HMGP and PDM, can provide your community with funds to create and implement a Mitigation Plan. Contact the Region 6 Hazard Mitigation Assistance Branch at 940-898-5435 to be directed to a specialist who can assist you with Mitigation Plan funding.

There have been no disasters in my area, so are these mitigation grants still available?

PDM, FMA, RFC, and SRL are funded by Congress—they are not disaster dependent. FEMA's largest mitigation grant program, HMGP, is available when authorized under the Presidential major disaster declaration.

WHERE CAN I GET MORE INFORMATION ABOUT MITIGATION GRANTS, NFIP, OR OTHER FEMA MITIGATION TOPICS?

www.fema.gov is the official FEMA website, where fact sheets on a variety of topics can be obtained.

www.fema.gov/government/grant/hma/index.shtm contains general Hazard Mitigation Assistance (grants) information.

www.fema.gov/government/grant/hma/grant_resources.shtm provides Grant Applicant Resources.

www.fema.gov/library/viewRecord.do?id=3310 provides information about joining the National Flood Insurance Program.

FEMA's Watershed Approach: A Holistic View

FEMA is moving forward with a new approach to flood mapping—the Watershed Approach—allowing for a holistic view of watersheds that cross jurisdictional borders. This helps communities work together to identify risks and hazards, as well as combine resources to address these issues.

What is a watershed?

A watershed is the area of land where all of the water drains to a common waterway, such as a stream, lake, wetland, aquifer, or even the Gulf of Mexico. Watersheds come in all sizes and shapes. They can cross county, State, and national boundaries. Watershed boundaries are always located on the tops of hills or mountains because water flows downhill. Rain falling on one side of the hill will flow into one water body, while rain falling on the other side will flow into another water body. Watersheds are sometimes referred to as “river basins,” “river valleys,” or “drainage basins.”

Watersheds and flood risks

Because watersheds loosely define communities that are connected by a common water source, activities that occur on the land or in the waterway of one town can affect the land and waterways of other communities within the same watershed.

As development occurs around the country, the effects of growth must be taken into account when assessing flood risks. Land developmental changes have an impact on the rivers or lakes into which rain and melting snow drain. For example, replacing forests and open land with housing developments decreases the amount of water that can seep into the ground. When this happens, more water flows over streets and sidewalks into street drains which empty into the river or lake. Therefore the river tends to flood more often when it rains because more water is reaching it more quickly.

In addition to development, things such as water control structures, large-scale construction projects, soil erosion, and farming can contribute to changes in the water flow.

What it means for a community

FEMA's overarching principle for the watershed approach is to develop a complete, consistent, and connected flood engineering analysis within watersheds. This does not mean that there must be one model for an entire watershed or stream segment. An acceptable watershed-based study may include multiple hydrologic and hydraulic methods and models, but those methods and models must agree at the transition points between them.

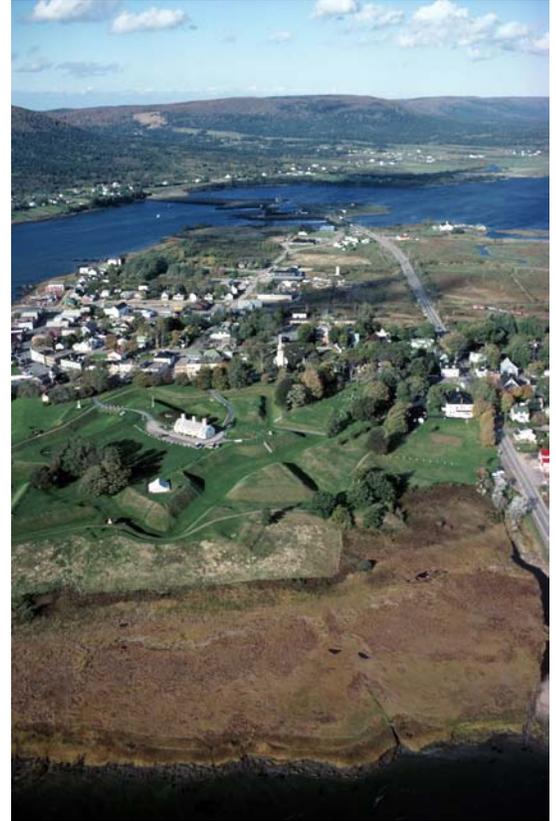
As a rule, gaps in analyses should also be analyzed and addressed, but in certain watersheds there may continue to be some gaps in analyses for low-risk areas.

The United States Geological Survey (USGS) defined and cataloged watersheds by unique Hydrologic Unit Codes (HUC). This classification system breaks down the United States into hydrologic units, with assigned numerical values. The basis of FEMA's watershed-based analysis will be the HUC-8 unit. The standard used for the definition of HUC-8, HUC-10, and HUC-12 cataloging units is the Watershed Boundary Dataset (WBD), a companion dataset to the National Hydrography Dataset (NHD).

For data management purposes, the NHD is distributed in units defined by the second or fourth levels of the WBD. The hydrography data can be downloaded from the Natural Resource Conservation Service at <http://datagateway.nrcs.usda.gov/>.

Partnerships in Risk MAP

During Risk Mapping, Assessment, and Planning (Risk MAP) FEMA will use the watershed boundaries to conduct future studies. This watershed approach will allow communities to come together to develop partnerships, combine resources, share flood risk information with FEMA, and identify broader opportunities for mitigation action. Groups such as local governments, county governments, Tribes, watershed councils, water management districts, civic organizations, chambers of commerce, and non-profit organizations will have opportunities to develop a vision for the watershed's future.



A watershed is the area of land where all water drains to a common waterway

A watershed is more than just land—it's also a community.

FOR MORE INFORMATION

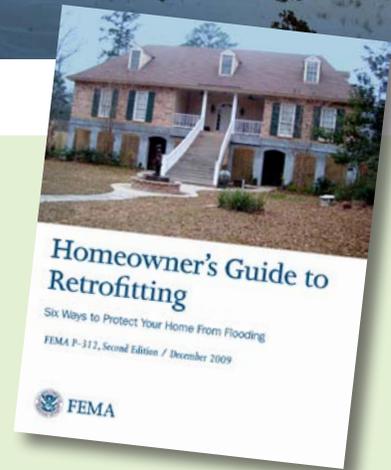
Additional information on the watershed approach can be found in FEMA Procedure Memorandum No. 59: *Guidance for Implementation of Watershed-Based Studies*, which is available from the FEMA website at www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=4287.

Building Science: Building Disaster-Resilient Communities

FEMA's Building Science Branch is a technical services bureau comprised of highly skilled subject matter experts. Located in the FEMA Federal Insurance and Mitigation Administration's (FIMA's) Risk Reduction Division, the Building Science Branch supports the directorate's mission to reduce risk to life and property by providing state-of-the-art technical hazard mitigation solutions for buildings.

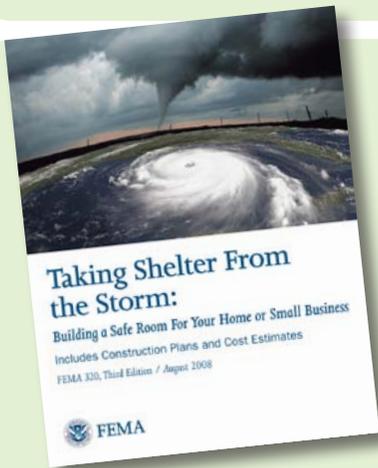
This branch develops and produces technical guidance and tools focused on fostering disaster-resilient communities. Building Science publications provide strategies for all types of hazards.

The Region 6 Risk Analysis Engineering Group is available for direction and guidance to additional resources in addition to the website and toll free number maintained by FEMA Headquarters. Recent updates were made to several publications. We will highlight them in upcoming issues of The Voice.



FEMA P-312, *Homeowner's Guide to Retrofitting*, Second Edition, December 2009

FEMA specifically prepared this guide for homeowners who want to know how to protect their homes from flooding. Homeowners need clear information about the options available to them and straightforward guidance that will help them make informed decisions. This guide provides both, in a form designed for readers who have little or no experience with flood protection methods or building construction techniques.



FEMA 320, *Taking Shelter From the Storm: Building a Safe Room For Your Home or Small Business*, Third Edition, August 2008

Having a safe room built for a home or small business can help provide "near-absolute protection" for homeowners and their families as well as business owners and their employees. These rooms provide shelter from injury or death caused by the dangerous forces of extreme winds such as tornadoes and hurricanes. FEMA 320, now in its third edition, helps home or small business owners assess risk and determine the best type of safe room for their needs. The publication provides designs for basement, in-ground, and above-ground safe rooms. Construction plans and specifications are available in PDF format and can be downloaded from the link below, or individually in CAD DWG or PDF at www.fema.gov/plan/prevent/saferoom/shplans.

For additional information on content updates to this publication, go to www.fema.gov/plan/prevent/saferoom/fema320.shtm.

In addition to these publications, FEMA has updated several technical bulletins in accordance with the National Flood Insurance Program (NFIP), including:

- TB-0, *User's Guide to Technical Bulletins*, March 2009
- TB-1, *Openings in Foundation Walls and Walls of Enclosures Below Elevated Buildings in Special Flood Hazard Areas*, August 2008
- TB-2, *Flood Damage-Resistant Materials Requirements for Buildings Located in Special Flood Hazard Areas*, August 2008
- TB-4, *Elevator Installation for Buildings Located in Special Flood Hazard Areas*, July 2010
- TB-5, *Free-of-Obstruction Requirements for Buildings Located in Coastal High Hazard Areas*, August 2008
- TB-9, *Design and Construction Guidance for Breakaway Walls Below Elevated Buildings Located in Coastal High Hazard Areas*, August 2008

FOR MORE INFORMATION

For more technical guidance on building disaster-resilient communities, visit the Building Science website at www.fema.gov/rebuild/buildingscience or call the Flood/Wind Building Science Helpline at 1-866-927-2104.

The Risk MAP Process Path: The Journey to Resilience

The Risk MAP Process Path is a new tool used to illustrate the lifecycle of a Risk MAP study. During the next several issues of The Voice, specific sections of the Process Path will be highlighted. The articles will be written to help readers better understand how stakeholders can be engaged in the process and what benefits can be derived from the products developed as part of the Risk MAP process. This issue introduces readers to the Process Path and discusses the initial steps along the path.

FEMA Region 6 created The Process Path to visually illustrate the intermediate steps and milestones associated with the Risk MAP process. This tool provides State agencies a graphical depiction that clearly communicates the process to local communities. It also illustrates the many paths available for mitigation actions. Although the Process Path depicts a starting point (A watershed is selected for Discovery), most communities are already farther along the path. Whether a study is underway or is being initiated, communities always have an opportunity to take mitigation actions.

While along the Risk MAP path, communities have the opportunity to identify natural hazard risks, communicate risks to citizens, recognize and embrace the benefits of floodplain management, understand and mitigate risks, and prepare residents for potential natural hazard risks.

Navigating the Process Path

Each Risk MAP study has a team of specialists from FEMA branches working together to provide a comprehensive perspective and approach for each study. This group is called a **Regional Project Team**. In the upper left of the Process Path, a multi-colored rectangle depicts the issues considered by each team member. The four quadrants represent areas of specialization, while the center section represents various stakeholders that the Regional Project Team could engage as appropriate.

The green quadrant indicates Risk Identification and Communications actions; the red are Mitigation Planning and Actions; the blue are NFIP Community Actions; and the black are Community Benefits and Grant Opportunities. The yellow middle section indicates Federal, State, and local agencies, as well as special interest and watershed groups, that could be engaged during the steps indicated.



The colorful diamond symbols along the path indicate **communication opportunities** in the process. FEMA's internal Regional Project Teams meet bi-weekly. When milestones are reached along the Process Path, opportunities for targeted messaging are a priority. The communication pieces created at these milestones are part of an ongoing process to determine what the teams need the watersheds to understand about local risks.

Editor's Note: While reading this article, readers may find it easier to print a larger copy of the Process Path. It can be found at www.rampp-team.com/documents/region6/conference_presentations/riskmap_the_process_03-2011.pdf.



Milestone **Decision Point**



These symbols indicate **decision points**, which occur along the Path when Regional Project Teams come together to discuss the next steps. At these decision

points, local mitigation actions can always be taken, or local understanding or risk can be used to augment or enhance local hazard mitigation plans.



The **legend** provides a guide for the Regional Project Team member responsible for the action indicated on the Path. It also indicates, by color, when one of the steps represents a product or tool that can be used by the community.

Starting the Risk MAP Process

The first step on the Process Path is “Watershed Selected for Discovery.” During this initial phase, data is collected from communities. Although FEMA has data on national and regional levels, FEMA relies heavily on information and data provided by the community. This is because local officials are able to provide a holistic view of their communities and their known risks.

The goal of Discovery is to work closely with communities to gather a better understanding of local flood risk, mitigation efforts, and other topics, as well as spark watershed-wide discussions about increasing resilience to flooding. The Discovery process of FEMA’s Risk MAP program helps communities identify areas at risk for flooding.

As communities, State governments, and FEMA move along the Process Path together, there are actions for each to take. These actions range from local officials reviewing and submitting their data to FEMA, to discussions between FEMA and communities regarding outreach opportunities within the watershed. All these take place prior to the Discovery meeting and are an important part of the process.

A watershed is selected for Discovery based on evaluations of risk, need, availability of elevation data, regional knowledge or issues, and input from the State and Cooperating Technical Partners. After this data is collected, the study is evaluated on the following criteria:

- Physical changes (manmade and natural)
- New bridges, culverts, and levees
- Other development influencing watershed characteristics
- Erosion and wildfire
- Climate changes
- Changing rainfall data
- Hurricane patterns and intensities
- Engineering methodology changes
- Inappropriate technical methods
- Storm surges and major flooding events
- New elevation Data Procedure Memo (in IPT review)
- Existing high-quality topographic data
- LIDAR imagery, if available
- 1- or 2-foot contours
- Existing study data
- Hydrology
- Hydraulics
- Local funding contributions, considering schedule and cost impacts

Because flood hazards change over time, this effort provides an opportunity to look at the components and activities that contribute to a community’s and watershed’s flood risk from a holistic perspective. In addition to providing another outlook, participating in the process will increase understanding of flood risk and help communities identify proactive steps that will reduce its risk of loss to life and property.

It is important to remember that although a watershed is selected for Discovery, depending on various factors, it may not move forward into the study phase. In addition, not all studies result in maps.

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Plan Maintenance: The Forgotten

By Blake Abbe

I am the forgotten piece of the Mitigation Plan,
 usually left at the end, incomplete and bland.
 All of the popular pieces take most of the cake,
 like Adoption, Planning Process, and Mitigation Strategy.
 Including the enigma Risk Assessment, who is difficult to calculate.

However, without me your Plan’s future is quite doomed,
 with no direction or guidance is where it will be I assume.
 Unless time stands still and there is no change,
 I’m afraid you will update, monitor, and evaluate your Plan.
 Otherwise you can guarantee your goals and objectives will be estranged.

Then it is a no-brainer for your Plan to spotlight me.
 Just follow these easy steps and your success is guaranteed.
 First, monitor periodic reports involving projects and activities,
 after all it is necessary to evaluate your strategies.

Next, you must evaluate your Plan.
 Just don’t forget to describe who, how, and when.
 Finally, it is five years later and time to update,
 however don’t wait this long and procrastinate.
 If you do the Plan will expire,
 then no more extra cash to elevate flooded structures higher.
 Introducing the missing link in your Mitigation chain,
 my name is Plan Maintenance and sustainability is my game.