November 1998

# Work In Progress

mapmod@fema.gov

Modernizing FEMA's Flood Hazard Mapping Program

## A Message From Mike...

With an estimated benefit-cost ratio of more than 2-to-1, several organizations have enthusiastically announced their support for the Map Modernization Plan (see "Bandwagon" on page 3).

The response from Congress has also been positive. In Senate Report 105-216, the Committee "…urges the administration to propose a means to fund adequately the mapping modernization requirements in its FY 2000 and future budget requests." On July 24 of this year, we presented the plan and benefit-cost assessment to the Office of Management and Budget (OMB). OMB staff support the Plan, but require that FEMA determine the means to fund it. We are currently preparing an evaluation of funding options.

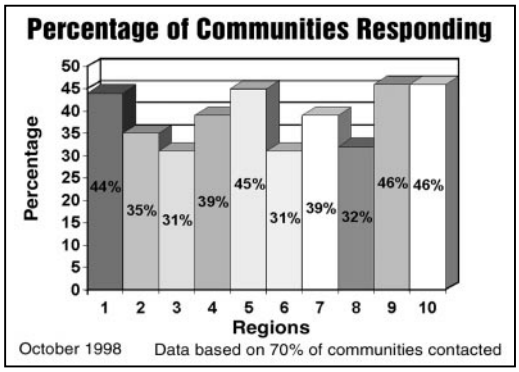
Director Witt strongly supports the Map Modernization Plan, and has identified this as one of his top priorities in Fiscal Year 1999. The Map Modernization Plan is also important to the Director because of its close link to Project Impact. Project Impact is a FEMA-Community partnership aimed at breaking the disaster-rebuild-disaster cycle through local-level mitigation and planning. Most Project Impact Communities have chronic flooding problems. Flooding is, by far, the number one natural disaster we face. Accurate floodplain mapping is fundamental to our nation's effort to become disaster resistant.

While seeking formal funding sources, we are still proceeding with many Map Moderization initiatives. Some you will read about in this issue. One key initiative underway is the National Flood Insurance Program's "Call for Issues." Through November 9, 1998, we invite your input on ways that FEMA can improve this vital program. For more information and format requirements, visit our Web site at www.fema.gov.

Improved Coordination. Use of Technology. You will see these themes recurring while we continue our ***Work In Progress***.

**Michael Buckley** *(mike.buckley@fema.gov)* is Director of the Technical Services Division of FEMA's National Office

# Five-Year Map Review/Update Ahead of Schedule




Kudos to the Five-Year Map Review/Update Task Force for completing ahead of schedule its goal of contacting all communities that are mapped and participating in the National Flood Insurance Program! Letters requesting mapping needs have been sent to over 19,000 communities! This massive effort began in 1997 and is a major accomplishment for the Task Force.

## MNUSS Tracks Needs

As communities respond to this request, their mapping needs are logged into the Mapping Needs Update Support System (MNUSS). MNUSS is one of the tools that will be used to rank and prioritize future map updates for the entire country. MNUSS provides a clearer picture of where the mapping needs are, the types of needs, and what it will cost to address the needs.

## Partnering Discussions Underway

The Task Force is engaged in serious discussions and work group activities with representatives of the Association of State Floodplain Managers' Mapping and Engineering Committee. A meeting in Washington, D.C. in August and several teleconference discussions throughout this past summer have focused on partnering with state and local governments. Particular emphasis has been placed on defining new techniques for increasing involvement by the state and local governments in identifying mapping needs and rejuvenating existing methods of information sharing and data collection, such as the Community Assistance Visits conducted by State Floodplain Coordinators and FEMA staff.

## Next Step – Report To Congress

Our next significant challenge is to prepare a report to Congress describing the activities and results of the first five-year cycle and to incorporate MNUSS into the process of allocating flood study funding. The ultimate goal is to have a system to identify and prioritize all flood mapping needs, and to update all maps with needs once every five-years so that communities will have accurate and complete flood hazard information.

All comments and suggestions regarding the Five-Year Map Review/Update Process and/or submission of mapping needs are welcome. Submit to: Cynthia M. Croxdale, FEMA, Mitigation Directorate, 500 C Street, SW, Room 418, Washington, D.C. 20472, cindy.croxdale@fema.gov.

# Map Mod to Compress Restudy Process

Enhancing the quality and delivery of the NFIP's flood studies and maps are central goals of map modernization. To accomplish these goals, the Objective 17 work group is examining nearly every step in the way FEMA funds, contracts, reviews, and releases studies. Led by Marty Frengs, Region III, the Objective 17 work group is preparing to recommend ways to *significantly shorten* the process for issuing revised flood studies and maps. A key, according to Mr. Frengs, lies in altering the current 92 steps that occur between the date a community is identified for restudy and the revised maps take effect. Mr. Frengs and his work group are searching for ways to decouple, combine, or reschedule steps to create a more efficient study process.

## Compressing the Contracting Process

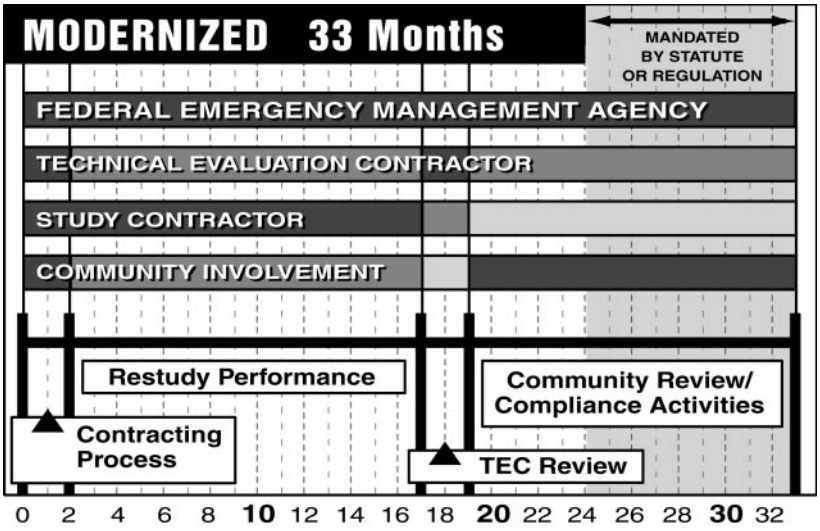
The study process begins at contracting, shortly after funds are allocated for disbursement to the Regions. On average, identifying a community for restudy and formalizing a contract between FEMA and the firm that will perform the study takes approximately 18 months. Ideas being considered to shorten the process include the use of multi-year, indefinite quantity task order contracts that build on the multi-year agreements already underway, as well as pre-selected study contractors that meet FEMA's criteria for candidate firms.

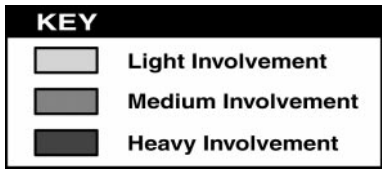
## Upfront Scoping to Squeeze Restudy Performance

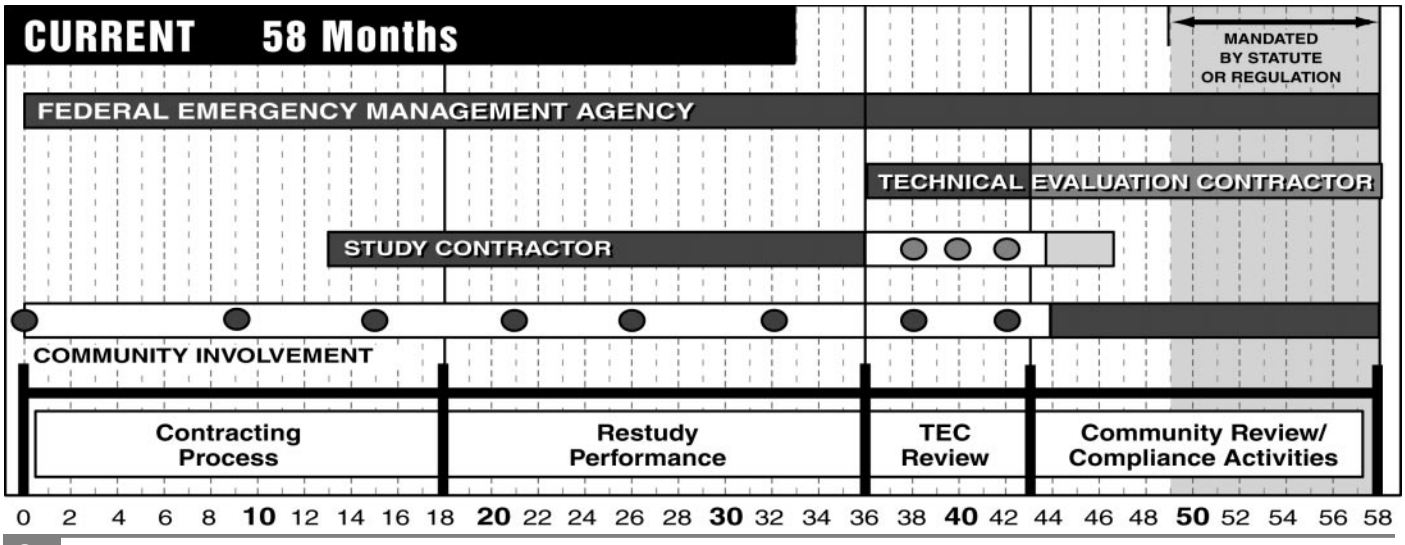
To save time in the restudy performance phase, Community Coordination Officer meetings establishing study scope could take place before study performance begins, perhaps during the contracting phase. In addition, the group is discussing the possibility of recommending separate contracts for study components, such as aerial and digital mapping, as ways of freeing up study contractors to focus on field work. FEMA hopes these measures will shorten the study performance period and result in fewer mapping delays.

Beyond study performance is the study review period. Limitations in the ways FEMA, the study contractor, and the TEC coordinate traditionally have resulted in lengthy study review periods. Regional Offices, working with study contractors and the TECs, already are finding many ways to speed up the review process.

All three participate in regular teleconferences to discuss and resolve technical issues as they arise. Further, the TECs are now performing hydrology pre-reviews to identify potential issues before the draft studies are submitted for review. The work group plans to recommend additional areas of improvement in the review process.



## "No Ideas Are Too Radical"

The final steps in the study process are in the post-preliminary period. For each preliminary map, NFIP regulations require FEMA to make public announcements, hold a 3-month appeal and a 6-month compliance period during which communities must adopt the maps. These requirements are vital for ensuring that communities are notified of map changes and understand the NFIP's floodplain management requirements. However, they stretch the preliminary process to often frustrating lengths.

The Objective 17 group members are searching for ways to combine or reschedule these regulatory and statutory periods to achieve time savings. Shortening the compliance period and starting the appeal period sooner in the restudy process are possible ways to speed up the post-preliminary process and get effective maps to communities sooner.

The overall goal of map modernization is to reduce study processing time to 33 months or less. The objective 17 work group has taken on the added challenge of exploring areas for improving the quality of studies through new technology applications, superior base mapping, and community coordination.

"Our goal is to revolutionize the study process," Mr. Frengs stated. "No ideas are too radical. We're looking for new ways to give NFIP customers the best possible maps as rapidly as possible."

**Marty Frengs** *(martin.frengs@fema.gov)* is Chief of the Hazard Identification and Risk Assessment Branch in FEMA's Region III

## On the Bandwagon

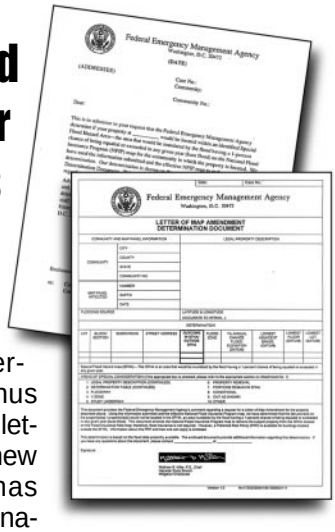
The following organizations have formally expressed their support of FEMA's Flood Map Modernization Program:

- American Society of Civil Engineers
- Association of State Floodplain Managers
- National Association of Flood and Stormwater Management Agencies
- National League of Cities
- National Lenders Insurance Council
- Technical Mapping Advisory Council
- Western Governor Association

*"I support the goals of the [map modernization] report completely. We believe the directions that you have identified in this report are exactly those required to improve the state of the Flood Insurance Rate Maps and to improve the process for the mapping products."*

– 9/15/98 letter to James Witt, Director, FEMA from **Luther W. Graef, P.E., President, ASCE**

## The Proposed "NEW" Look for LOMAs




FEMA has designed new LOMA determination products. The new product is a tabular document that is property-specific and does not contain any references to private individuals, thus eliminating the need to sanitize letters for public distribution. This new property-specific document has been developed so that determinations can eventually be placed on the FEMA Web-site and be easily retrieved by the end users of the product.

In addition to the new property-specific LOMA document, a transmittal letter has been developed that will accompany the new document. This transmittal letter will contain all references to private individuals that are involved with the request, thus enabling FEMA to maintain the customer service approach with the new property-specific document. In addition, the letter will also provide the requester with a brief description of the LOMA document he or she is receiving and FEMA contacts for any additional questions regarding the determination that was issued. The new document and transmittal letter are tentatively scheduled to be ready for use later this fall for issuing LOMA, CLOMA, LOMR-F, and CLOMR-F determinations.

**Mark Crowell** *(mark.crowell@fema.gov)* is a Physical Scientist at FEMA's National Office

## Corrections from Last Issue

**Objective 2.5** – the Task Leader is Karl Mohr, karl.mohr@fema.gov

**Objective 4** – Mary Jean's e-mail is mary.jean.pajak@fema.gov

**Objective 18** – Larry's email is lawrence.basich@fema.gov

**Objective 32** – the Task Leader is Erik Rourke (not Burke), erik.rourke@fema.gov

***Work in Progress*** was produced with the valuable assistance of many individuals in the Mitigation Directorate and across FEMA who contribute to the success of the Map Modernization Plan.

**Michael J. Armstrong,** Associate Director for Mitigation

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# Evaluation of Erosion Hazards

Section 577 of the National Flood Insurance Reform Act of 1994 requires that FEMA conduct an "Evaluation of Erosion Hazards" study that evaluates the economic impact of erosion and erosion mapping on communities, and on the National Flood Insurance Program (NFIP). The legislation defines "Erosion Hazard Area" as "an area where erosion or avulsion is likely to result in damage to or loss of buildings and infrastructure within a 60-year period." This definition includes coastal as well as riverine erosion, however the legislation recognizes potential technical difficulties in mapping riverine erosion, and therefore mandates a feasibility study of this category of erosion.

## Coastal Erosion Hazard Areas

FEMA is conducting the coastal portion of the study in two phases. The first phase is to map erosion hazard areas in 27 coastal counties (distributed among 18 states). The second phase is to inventory structures located within the mapped erosion hazard areas. These data will be used to conduct an economic impact analysis of erosion on coastal communities and on the NFIP, and to conduct an analysis to determine whether it is cost-beneficial to map erosion hazard areas through the NFIP.

FEMA began work on the coastal portion of the study in the Fall of 1995, when two preliminary tasks were initiated. The first task was to determine a statistically valid and representative sample of coastal counties with erosion hazards. This task was contracted to the Department of Environmental Sciences at the University of Virginia. The second task was to conduct a pilot economic impact analysis of erosion on Sussex County, Delaware. This task was contracted to the Laboratory for Coastal Research at the University of Maryland. The results of these preliminary tasks assisted in the development of methodologies used in the two phases of the national study.

Following completion of these preliminary efforts, the first full phase of the study was initiated in February, 1996. FEMA contracted with 18 State Coastal Zone Management Programs or their designees to conduct erosion mapping for 27 coastal and Great Lakes counties. The studies were completed in December of 1997. The second and final phase of the study was initiated in September of 1997, and is being conducted by the H. John Heinz III Center for Science, Economics, and the Environment. This phase consists of an inventory of structures within and near the mapped erosion hazard areas, as well as the economic impact analysis. The inventory of structures will be completed by November 1998, and the economic impact analysis will be completed by December, 1999.

## Riverine Erosion Hazard Areas

In response to the NFIRA mandate, FEMA is conducting a study to determine the technological feasibility of mapping Riverine Erosion Hazard Areas (REHAs). "Technologically feasible" means that methodologies exist that are scientifically sound and can be implemented. "Scientifically sound" means the methodologies are based on established physical principles and are supported by the scientific community. "Implementable" means that the approaches can be applied by FEMA as part of a nationwide program under the NFIP for an acceptable cost.

MICHAEL GALLACHER

**NFIRA mandates that FEMA study the economic impact of erosion on communities.**

The objectives of the study are to:

- define riverine erosion processes,
- discuss geomorphic and engineering methods that could be used to map REHAs,
- evaluate the methods of predicting and modeling REHAs that have been applied in selected case studies within the U.S.,
- evaluate the cost to study and map REHAs,
- discuss programmatic elements associated with mapping and regulating REHAs.

The study team is conducting an in-depth search of existing methodologies used to predict riverine erosion, with emphasis on case studies. The study team began in October 1997 and will complete its report in Fiscal Year 1999.

## Final Report

The final report for the coastal study will be delivered to FEMA by January, 2000. Following internal and external review, it, along with the riverine study, will be submitted to Congress in early 2000. The conclusions of the reports will help provide closure to a long-standing debate and Congressional concern as to whether FEMA should map erosion hazard areas and use these data in determining insurance premium rates through the NFIP.

**Mike Grimm** *(michael.grimm@fema.gov)* is leading FEMA's Riverine Erosion Study.
**Mark Crowell** *(mark.crowell@fema.gov)* is leading FEMA's Coastal Erosion Study.