



FEMA

June 17, 2008

MEMORANDUM FOR: Mitigation Division Directors
FEMA Regions I - X



FROM: Doug Bellomo, P.E., Director
Risk Analysis Division

SUBJECT: Procedure Memorandum No. 46 – Partial-Countywide
Mapping Evaluation

EFFECTIVE DATE: IMMEDIATELY

Background: One of the objectives of Flood Map Modernization (Map Mod) is to create new flood maps in a countywide format and use these maps to form a seamless National Flood Hazard Layer (NFHL) of flood hazard mapping information. As part of its mid-course adjustment (March 30, 2006) FEMA has determined that the goal of having an NFHL with all countywide mapping formats could be delayed in favor of focusing instead on high-risk and high population areas. This may better meet the near-term needs of the map users and the Nation by concentrating the available flood mapping funds where they will serve the greatest concentrations of the population with the greatest needs for updated flood hazard mapping.

Issue: Current map coverage formats include community-based, and countywide. FEMA prefers the countywide mapping format and it is considered the default format for any map that has not already been modernized or is not in the countywide format. However, because there are areas in some counties with low density population and low flood hazard, excluding these areas from the countywide Digital Flood Insurance Rate Map (DFIRM) production effort, or re-mapping only areas with new flood hazard data have been proposed. To accommodate this possibility, a third map coverage format, partial-countywide, is introduced. Guidance for the selection of community-based (i.e., single jurisdiction) and countywide formats is provided in the *Guidelines and Specifications for Flood Hazard Mapping Partners*. However, there is currently no guidance for partial-countywide mapping as an alternative to countywide mapping.

Action Taken: Current methods for publishing partial-countywide maps are very inefficient mainly because new panel layout schemes differ from prior panel layouts which results in partial overlap of unrevised panels surrounding the updated area with the panels for the revised area. Because the overlapping panels must be modified to avoid duplicate coverage and must be republished, the cost per panel of updated information is higher than the full countywide mapping.

In addition, neither the DFIRM Tools on the Mapping Information Platform (MIP) nor other FEMA mapping software supports a partial-countywide format. As a result, the burden and cost of producing partial-countywide maps may outweigh the benefits of pursuing a partial-countywide format.

If a partial-countywide mapping format will be pursued, the mapping partner must submit a request to the FEMA Region; and send a copy to FEMA Headquarters and, during Map Mod, send a copy to the Regional Management Centers (RMCs). The request must include a cost comparison to the standard countywide format, written justification of their decision to pursue partial-countywide mapping, and answers to the following considerations. Because each proposed partial-countywide mapping project is unique, FEMA will evaluate submittals on a case-by-case basis.

- How many panels will the partial-countywide entail?
- How many existing panels will be unaffected?
- How many existing panels will need to be republished as “See Panels”? (This means a panel that refers the user to “see” another panel for information)
- How will these panels be produced since they cannot be produced through DFIRM Tools?
- How many communities are in the county?
- How many communities will be completely mapped by the partial-countywide mapping?
- How many communities will be only partially mapped as a result of the partial-countywide mapping limits?
- How many of these communities have an effective Flood Insurance Study (FIS) that will need to be revised and republished?
- Will adding additional panels to the partial-countywide mapping plan complete any of these communities and eliminate their single community FIS?
- How many existing detailed flooding sources are there in all communities?
- What are the existing map formats?
- How many Letters of Map Revision (LOMRs) will be incorporated into the partial-countywide mapping?
- How many LOMRs will not be incorporated?
- How many detailed flooding sources will be fully mapped in the partial-countywide mapping?
- How many detailed flooding sources will be only partially mapped as a result of the partial-countywide mapping limits?
- How will the cross section lettering appear on the partial-countywide panels and the existing unrevised panels where traditional continuous lettering series are not possible now?
- Is there going to be a datum issue created by the partial-countywide mapping limits?
- Will adding additional panels to the partial-countywide mapping simplify any of the cross section re-lettering and datum conversion challenges?

The FEMA Region in consultation with FEMA Headquarters will evaluate the request and approve or disapprove the request based on information provided by the mapping partner. The FEMA Region will advise the mapping partner of the decision in writing, and copy Headquarters and FEMA’s national contractor(s).

If partial-countywide mapping is pursued, the following guidance must be followed:

| Considerations | Guidance |
|------------------------|---|
| Title Block | Use Countywide Title Block. All jurisdictions in the county will be listed but the ones not included in the partial-countywide will be noted as having their FIRMs and FISs published separately. All community repositories will be listed on the map. |
| Suffix | Determine suffix for partial-countywide considering all suffixes in use in all communities being revised and use the next highest one for the partial-countywide maps. Same as for full countywide. |
| Panel Numbers | Assign panel numbers for the entire county, just as for a full countywide. Only the panel numbers for the panels involved in the partial-countywide will be shown on the new index. Numbering of countywide panels must consider the numbering of the existing panels so as to not create two panels with the same number. Start countywide numbering by going up to the first even one thousand above the highest existing FIRM panel number. |
| Index | Produce a single Index with both existing layout and quad-based layouts. Any non quad-based index representation requires special handling as it is not supported by current DFIRM Tools on the MIP. Any partial-countywide Index will require some special handling outside of the current DFIRM Tools environment. |
| Overlap Interface Area | When producing a new partial-countywide quad-based panel layout, there will be some existing FIRM panels which are only partially covered by the new quad-based panels. To avoid duplicate coverage, areas shown on quad-based panels must be blanked out on the existing non quad-based community panels which must then be republished. Most of these are manually-produced panels. The blanked area is labeled with a reference to the new countywide panel which begins with “See Panel...”, thus we refer to the existing panels with the blanked out areas as “See Panels”. |

| Considerations | Guidance |
|--|---|
| <p>Overlap Interface Area (Cont'd)</p> | <p>Additionally, any “See Panels” which exist in Standard Format must be converted to Map Initiatives Format (e.g., A-numbered Zones converted to AE Zones; B and C Zones converted to X Zones; and floodway boundaries and cross sections must be added, as necessary).</p> |
| <p>FIS</p> | <p>The countywide FIS format must be used and must list all communities on the front cover, with the communities not included noted as having separately published FIRMs. Communities not included in the partial-countywide will retain their existing FIS and FIRM. Communities divided by the partial-countywide limit may need to be partially included and have their own FIS revised.</p> |
| <p>Datum Conversion</p> | <p>All new DFIRMs are to be mapped in NAVD88 datum. Since most existing FIRMs are referenced to NGVD29, partial-countywide mapping will create dual datum FIRMs for the counties at a minimum. Profiles and floodway data tables (FDTs) within an individual FIS will now be potentially referenced to either datum. This will increase the complexity of production and quality control reviews. To minimize datum shifts within individual profiles and FDTs, minimize the number of detailed flooding sources only partially mapped as a result of the partial-countywide limit by careful selection of FIRM panels to include in the partial-countywide layout.</p> |
| <p>Lettered Cross Sections</p> | <p>In a traditional countywide process, the entire length of a detailed stream is re-lettered into a continuous sequence. In a partial-countywide, some portions of a detailed stream may fall on panels not planned for publication making a continuous lettering series impossible. To minimize lettering discontinuities, minimize the number of detailed flooding sources only partially mapped as a result of the partial-countywide limit, and consider expanding the number of panels included in the new partial-countywide layout to accomplish this.</p> |

cc: See Distribution List

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