

Issue 48: Triggers for NCFMP-Initiated Physical Map Revisions

Background

Part 65 of the National Flood Insurance Program (NFIP) regulations allow the Federal Emergency Management Agency (FEMA) to amend and revise the effective Flood Insurance Study (FIS) and Flood Insurance Rate Map (FIRM), as warranted, after receiving requests from community officials and/or individual property owners. The North Carolina Floodplain Mapping Program (NCFMP) through the Cooperating Technical Partner (CTP) Program, shares the responsibility of updating North Carolina FISs and FIRMs to ensure that the analytical methods employed in the FISs are scientifically and technically correct, that the engineering analyses meet professional standards, and that the results of the FISs are accurate.

FEMA and the NCFMP recognize that changes to the FISs and FIRMs are necessary to reflect the most up-to-date flood hazard information. Some reasons for changes are improvements in techniques used in assessing flood hazard risks, changes in physical conditions in floodplains or watersheds, and the availability of new scientific or technical data. It is appropriate to reflect the majority of these changes through a letter issued by FEMA, referred to as a Letter of Map Revision (LOMR). The letter describes the changes and officially revises the effective map with an annotated portion of a panel. However, the LOMR does not republish the affected map panels.

The Physical Map Revision (PMR) process may also be employed to reflect these changes. A PMR revises the effective map panels impacted by the changes and republishes the affected map panels, and if necessary the FIS.

Issue

Historically, the decision on how to process a map revision request has largely been made on a case-by-case basis. FEMA physically revised and republished maps as PMRs only when necessary to show changes involving a large area of land or modified flood risks. Changes that involve modified flood risks include:

- Adding new Special Flood Hazard Areas (SFHAs) and/or floodways;
- Enlarging or reducing existing SFHAs and/or floodways;
- Shifting existing SFHAs and/or floodways to areas not previously within the SFHAs and/or floodways; and
- Increasing or decreasing Base (1% annual chance) Flood Elevations (BFEs).

LOMRs have also been used to reflect modified flood risks. FEMA indicates that LOMRs are better suited for changes that involve only small areas within a community. In order to define when the NCFMP will internally initiate a PMR for updating the FIS and FIRM, specific criteria and defined thresholds must be established.

Recommendations

Riverine and coastal engineering restudies should be evaluated based on criteria grouped according to the following categories:

- Age of the effective analysis/maps;
- Historical flooding information (Riverine);
- Factors affecting hydrology (Riverine);
- Factors affecting hydraulics (Riverine);
- Factors affecting stillwater analyses (Coastal);
- Factors affecting wave height analysis (Coastal);
- Unmapped Area or Study Technical Method Upgrades (Riverine); and
- Community Issues.

Restudy triggers will be assigned point values to reflect the primary flood hazard mapping goals of FEMA and the NCFMP. From the perspective of performing a restudy, the highest priority is assigned to factors that will potentially result in the greatest impacts to BFEs and/or the flood hazard boundary delineation or areas where existing data appears to be inaccurate or outdated, including:

- Areas of dense or anticipated development;
- Studies that update apparent erroneous analyses;
- Areas affected by structural controls or channelization;
- Natural morphological changes in floodplain or beach profile are significant;
- Potential flooding areas previously not studied;
- Studies that will update outdated study methodologies and provide consistency in modeling methods (e.g. eliminating redelineation locations);
- Communities experiencing flooding outside mapped floodplain with significant damage; and
- Community identified flood study needs where the community is willing to cost-share on funding the project.

For a detailed discussion of each of these triggers, please see the NCFMP Restudy Manual posted on the Public Documents page of www.ncfloodmaps.com.

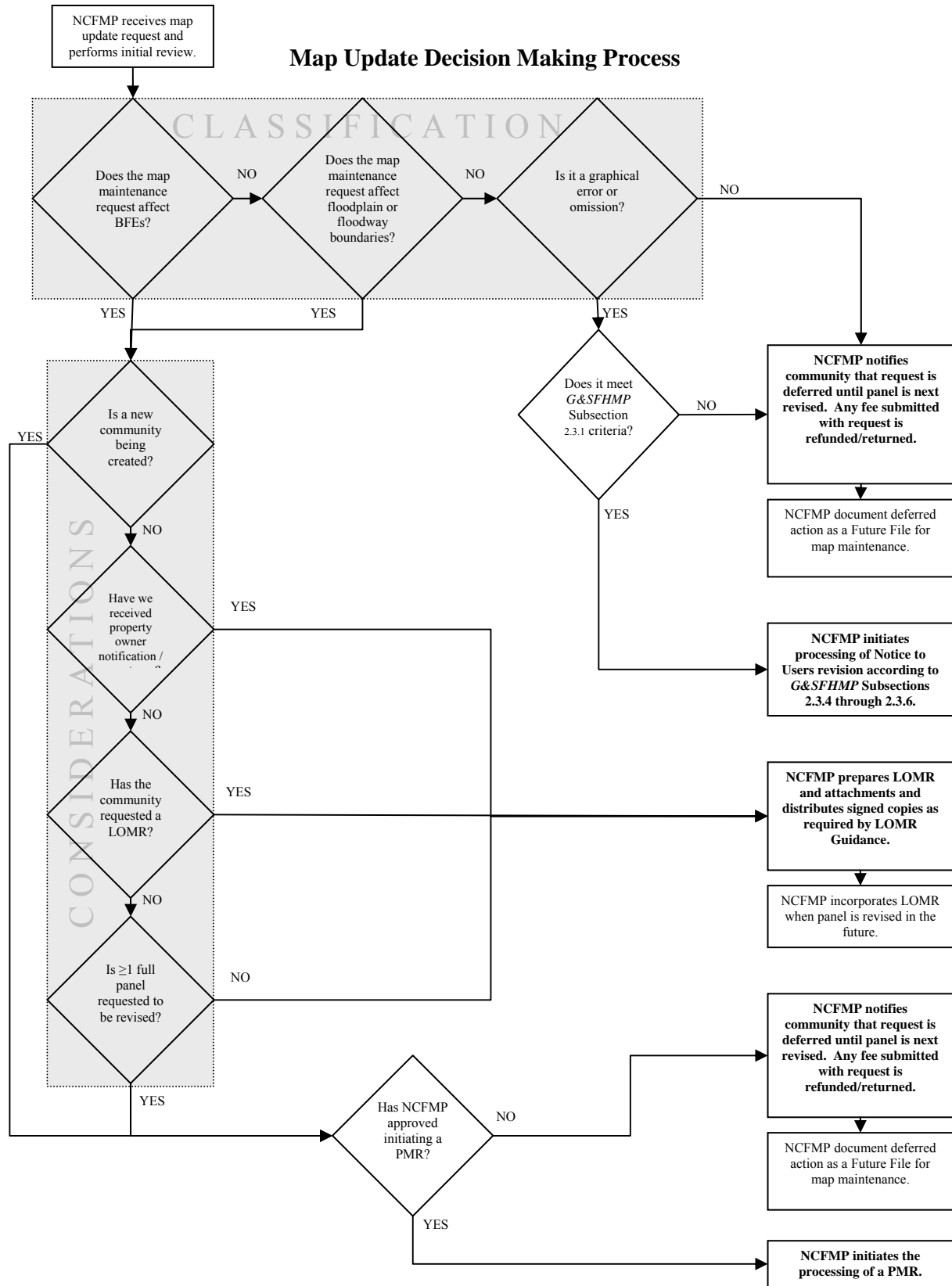
The decision-making process to be utilized by the NCFMP for map update requests in accordance with Part 65 of the NFIP regulations is presented in the attached flowchart. The NCFMP will use the restudy triggers listed above to determine on a case-by-case basis if a PMR should be processed and the timing of the PMR. Points are assigned to the PMR triggers per Issue Paper 47: Defining Priority Ranking in MENCA and the NCFMP Restudy Manual. In cases where the point total is greater than 75, the NCFMP will process the revision as a PMR; where the point total is between 25 – 74, the NCFMP will process the revision as a PMR if funding allows; where the point total is between 0-24, the NCFMP will incorporate the revision into the next map revision to take place as part of map maintenance activities 2.5 years after the map effective date.

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The following are points to note during the decision-making stage:

- Response to map update requests should be in a timely fashion and within funding limits. To ensure community needs are met to the greatest possible extent, close coordination between the NCFMP and community officials is encouraged.
- Consideration should be given when a specific product (i.e., LOMR or PMR) is requested by a community. If possible, the requested product should be prepared for the community.
- Other criteria, in addition to those already mentioned and those shown on the following flowchart, should also be considered during the LOMR versus PMR decision making process. Such criteria include the following:
 - Funding – LOMRs can be processed with a fraction of the funding required for PMRs.
 - Distribution – PMR distribution is greater than that of a LOMR.
 - Final Product – Is a revised map panel preferred and/or easier to use than an annotated portion of a map panel?

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Discussion Summary

Date Discussed: N/A

Discussion Attendees: N/A

Summary of Discussion

N/A

Final Guidelines

See Recommendations above.

Reference(s)

NCFMP Restudy Manual, September 12, 2006

Points of Contact

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