FEMA

Coordinated Needs Management Strategy (CNMS)

The Department of Homeland Security's Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program and provides reliable flood hazard data and maps for the United States. Floodplains are constantly changing, a characteristic that makes managing and mapping them a challenge. Updates to Flood Insurance Rate Maps (FIRMs) will always be needed because the physical environment, climate patterns, and engineering methods (PCE) may change. FEMA recognizes that mapping needs include areas where mapping has not occurred or where previously performed flood studies have been questioned because of one or more factors related to changes in PCE. An important step in maintaining FIRMs is assessing FEMA's inventory of floodplain studies to determine whether the conditions on the ground are still satisfactorily represented on a FIRM. Whenever the information on a FIRM is not representative of actual conditions, it is considered a mapping need and will be considered by FEMA for a new study. FEMA is mandated by the National Flood Insurance Reform Act of 1994 to assess all FIRMs once every five years to determine which ones need to be revised.

FEMA uses modern geospatial technologies and current FEMA policies, requirements, and procedures to coordinate the management of mapping needs in a comprehensive approach. This is referred to as the Coordinated Needs Management Strategy (CNMS). CNMS uses existing digital map data to inventory and manage flood map update issues and support FIRM revision and production planning activities.

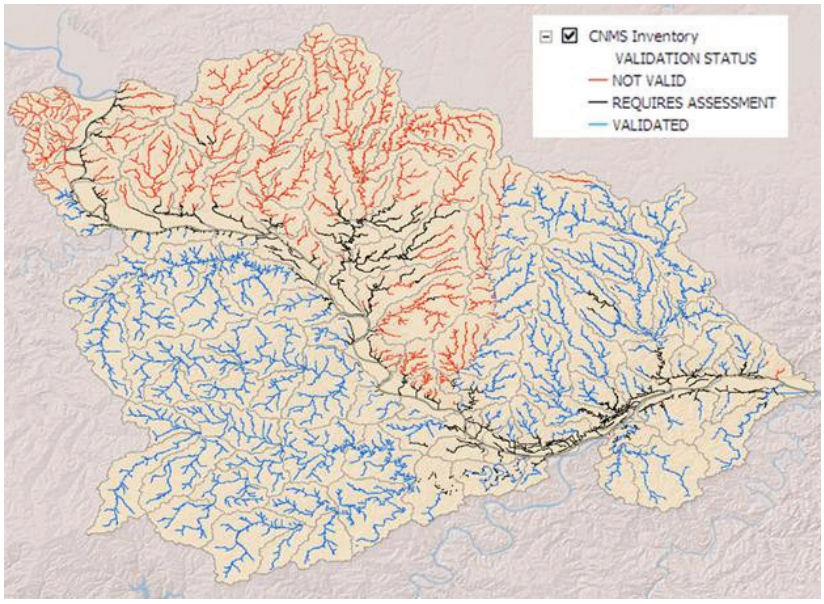
The vision for Risk Mapping, Assessment and Planning (Risk MAP) is to analyze and depict risk so that communities and the public can understand their risk and make informed decisions to safeguard their lives and property. The CNMS inventory contributes to the identification of risk in two important ways. The first is by indicating where the depiction of flood hazards on FIRMs has been validated through detailed assessment. The second is by showing which previously studied or unstudied floodplains inadequately represent flood hazards. In this way, CNMS leads to the improvement of flood hazard data.

Additional Information

- CNMS is FEMA's strategy for coordinating the management of mapping needs using modern geospatial technologies and current policies, requirements, and procedures.
- CNMS makes information related to mapping needs readily accessible and more usable because the needs information is stored in a predictable, standardized, and digital format. CNMS reference materials are available through the FEMA Regional offices.
- For more information about CNMS please reference "Procedure Memorandum No. 56: Guidelines for Implementation of Coordinated Needs Management Strategy (CNMS):" http://www.fema.gov/library/viewRecord.do?id=4542

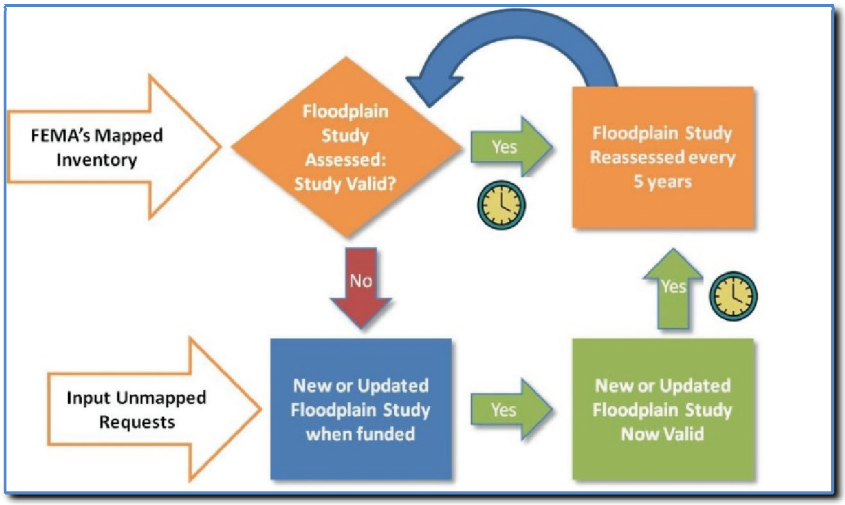
RiskMAP
Increasing Resilience Together

Tracking of Engineering Analyses



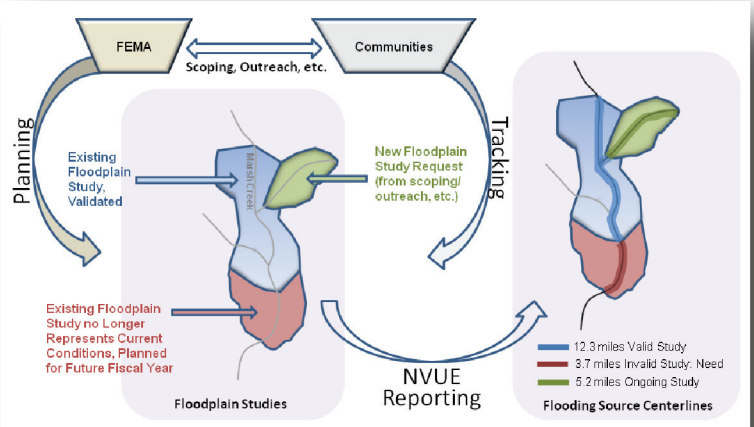
One of the goals of CNMS is to assess the validity of engineering study data through a series of triage checks. The engineering study validation process evaluates whether or not there is an adequate level of flood hazard risk identified on a community's FIRM. The process evaluates the existing floodplain study against 17 possible change indicators that may have occurred since the date of the effective analysis, not the map date. These elements include changes in land use, new/removed bridges and culverts, and accounting for recent flood events captured by gage data. When a floodplain study is found to be deficient as a result of this validation process, it is labeled as "Invalid" in the CNMS database. FEMA utilizes CNMS to report New, Valid, or Updated Engineering (NVUE). NVUE metrics distinguish between engineering studies that adequately identify the level of flood hazard risk from those that are in need of restudy.

CNMS Lifecycle



FEMA's mapped inventory will be managed by changing the validation status of existing floodplain studies, adding new study needs to the inventory, updating the status associated with studies in progress, and including new input and requests from communities. The changing validation status of existing floodplain studies is affected by PCE. The assessment of each floodplain study also has a limited shelf life. FEMA will be assessing the inventory of each community's floodplain studies every 5 years for as each floodplain study is to be re-evaluated or validated this frequency.

FEMA may choose to assess, restudy, or defer portions of their inventory dependant on available resources. Floodplain studies in CNMS that are determined to be 'Invalid' are eligible to receive resources for restudy based on annual production planning criteria and can identify that a study is planned or underway. For studies to go from 'Invalid' to 'Valid' status, they must be restudied. Requests for mapping of previously unmapped areas can be added to the inventory of studies and will, when completed, join the study reassessment schedule.



CNMS: FEMA's Inventory of Floodplain Studies