

**POLICY COMMITTEE WORKPLAN
MAPPING & ENGINEERING STANDARDS
2017-2018
Sept. 22, 2017**

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1.0 Overview

The primary mission of the Mapping and Engineering Standards Committee is to provide policy guidance and support for floodplain mapping and engineering issues to foster reduction of future losses, costs and human suffering caused by flooding. Historically, this committee has had major impacts on FEMA's Flood Mapping Program, requirements for map modernization, Risk MAP and the NFIP and addressing technical issues related to flood hazards such as levees and dams.

Co-chairs for the committee are:

David Knipe, Indiana Department of Natural Resources

Steve Story, Montana Department of Natural Resources and Conservation

This committee will utilize the entire listing of members who have expressed an interest in the committee as maintained by the ASFPM executive office. A sub-committee list for various tasks will be maintained by committee chairs. In developing and completing the activities outlined in this workplan, committee leadership will attempt to solicit assistance from a core group of members who will serve as Capability Leads or Topic Leads. These members should have expertise or strong interest in a particular area or topic. The committee chairs can delegate action items to the appropriate Capability Lead(s), who in turn can coordinate with other committee members to complete the action and/or provide the deliverable. Some specialty areas may include:

- Hydraulics & Hydrology
- Coastal Mapping
- Levees & Dams
- Technology/Digital Data Management
- CTP Issues

A standing sub-committee of M&ES Committee focuses on the Cooperating Technical Partners (CTP) program. The goal of this sub-committee is to identify successes and challenges of the overall program, inspire collaboration among CTP's, and share best practices among mapping partners. This sub-committee is co-chaired by:

Thuy Patton, Colorado Water Conservation Board

Carey Johnson, Kentucky Division of Water

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Section 2 of this workplan lists the 2017-2018 committee tasks and describes the work required to complete these items. Many items directly support the FY18 Goals and Objectives for ASFPM that are mapping and/or engineering related.

2.0 Task Outline

2.1 ASFPM Goals and Objectives for 2017-2018

Following is a list of the Goals and Objectives adopted by the ASFPM board that directly influence the work of the Mapping and Engineering Standards Committee. These are provided as reference for the work tasks identified in this plan. Many other adopted goals and objectives are indirectly supported by M&ES tasks. Those are not listed below.

1.2.1 Facilitate outreach to Congress about basic concepts of floodplain and flood risk management, including updating and use of “Flood Mapping for the Nation” (with TMAC updates). Maintain and promote funding for the National Flood Mapping Program and improved quality of mapping products, including future conditions mapping, climate change and other flood-related hazards.

1.2.2 Promote the acceptance of flood mapping products and updates by developing tools and processes for improved communication about flood risks, mapping and insurance (especially in coastal areas, areas behind levees, and other residual risk areas). Emphasize local involvement in map development and outreach to owners of property with flood risk and integration with flood insurance.

1.2.3 Build and support state and local capacity through CTP program and expand CTP funding.

1.2.4 Support adequate funding for stream gage infrastructure for modeling, flood study calibration and early warning for public safety.

1.2.5 Increase funding and agency coordination for the collection of elevation data (LiDAR), building footprints and parcel data to support mapping and structure-based risk assessment.

2.2 Ongoing M&ES Activities

The following are the ongoing tasks and activities the M&ES Committee strives to complete each year:

Operating Partners Meetings: Use quarterly Operating Partners meetings to further committee goals and resolve technical and policy issues raised within the ASFPM membership. (David/Steve/Other committee members).

Technical Mapping Advisory Council: Review information and recommendations that arise from the TMAC committee. Provide support to Suzanne Jiwani (ASFPM rep).

CTP sub-committee Calls: Organize and facilitate regular calls and outreach with CTP sub-committee and general committee membership. (David/Steve/Thuy/Carey)

Policy and Rule Making Review: Review ongoing federal policy and rule making activities, including proposed federal mapping appropriations and FEMA Guidelines and Standards updates. Provide input and comments on issues that are relevant to the committee mission. (David/Steve/Other Committee Members)

Abstract Reviews: Review ASFPM annual conference abstracts and assist with session assignments. Coordinate with program chair and host abstract team with reviewing abstracts for the 2018 ASFPM conference in Phoenix. (David/Steve/Del Schwalls)

Annual Conference: Prepare for the national policy meeting and lead discussions at the annual committee meeting. Prepare notes of annual committee meeting for distribution to the committee members and/or posting on the website. (David/Steve). Lead discussions at the annual CTP sub-committee meeting and coordinate logistics on a CTP social event at the annual conference in Phoenix. (Thuy/Carey)

Annual Report and Work Plan: Prepare annual report and develop workplan (David/Steve)

Conference Calls & Committee Retreat: A co-chair will attend all conference calls and one co-chair will attend the conference retreat. (David/Steve)

Information Sharing: Explore social media options for communicating with committee members and work to identify a committee member as a webmaster. Maintenance and update of the M&ES Committee ASFPM webpage.

2.3 M&ES Committee Work Items:

In support of the mission to provide policy guidance and support for floodplain mapping and engineering issues, the M&ES committee and its CTP sub-committee will continue to develop strategies and promote support for the ongoing identification, updating and maintenance of flood hazard and flood risk data. In addition to the ongoing activities and functions of the M&ES Committee, there are several additional efforts and initiatives that have been prioritized for the 2017-2018 work cycle. Some of these activities will result in Discussion/White Papers related to policy issues while others will be administered through ongoing coordination with ASFPM Flood Science Center, FEMA, CTPs or other operating/mapping partners. Any Discussion/White Papers produced will be consistent with the ASFPM Goals and Objectives and follow the association's development policies and procedures.

ASFPM - Flood Mapping for the Nation - The association continues to use the cost estimates from this report to promote increased funding for flood hazard mapping.

Completed in 2013, this internally-funded project developed an estimate of the total cost to complete the floodplain mapping of the country based on the parameters specified in the Biggert-Waters Flood Insurance Reform Act of 2012 and ASFPM's projection of what constitutes adequate flood mapping for the country. This estimate shows the initial cost to complete flood mapping for the nation ranges from \$4.5 billion to \$7.5 billion. These cost estimates are repeatedly being cited by members of Congress justifying the need for increased funding for flood hazard mapping. An update to the report is planned for early 2018.

The M&ES Committee members will assist the FSC in the update of the "Flood Mapping for the Nation" report through input on cost estimates and peer review.

2-D Modeling issues: With the advent of the 2-D capabilities of HEC-RAS 5.0, SRH-2D and other 2-D modeling software programs, there are considerable interest and advances in 2-D modeling for floodplain, stormwater, dam safety and other water resources applications. As these types of models become more widely used, modeling, mapping and regulatory issues have arisen that need to be addressed. Work items associated with this topic included:

- Review work products / papers about 2-D & Unsteady modeling that may be issued by FEMA or by other organizations (NAFSMA, FMA, etc.) or any Regional guidance that may be available.
- Provide a forum at the annual conference (either during M&ES committee meeting, or an early bird session) for identification of issues for further discussion regarding advanced modeling techniques.
- Provide guidance to mapping partners, including FEMA, on how to incorporate advanced modeling outputs into regulatory and non-regulatory flood hazard products and datasets and 2D models will be regulated.
- Facilitate any ad-hoc review groups to address discussion topics.

National Flood Hazard Mapping program: M&ES leadership will moderate a discussion with selected ASFPM leaders to discuss the implementation of a full vision of the National Flood Hazard Mapping program. We are now five years into the National Flood Mapping Program, but there hasn't been much progress on the development and implementation of a formal mapping program as defined by legislation. The intent of this discussion is to explore what is being done, what is the gap, why does the gap exist, and how do we close the gap. Based on the ideas generated from this discussion, a more formal document could be developed if necessary. At least, this discussion should inform the update of the "Flood Mapping for the Nation" report.

ASWM/ASFPM Wetland/Floodplain mapping forum: The Association of State Wetland Managers, in conjunction with the Natural Floodplain Functions Alliance and Wetland Mapping Consortium, planned an all-day workshop April 10, 2017 at the Tommy Douglas Center in Silver Spring, MD. The purpose of the workshop was to explore ways in which wetland, river/stream and floodplain mapping efforts can inform each other for the purposes

of identifying ecosystem functions that are critical to protect and/or restore in order to increase resiliency to extreme weather events and maximizing ecosystem services. The major outcome of the workshop will be a roadmap for combining wetland/river/floodplain mapping of functions and services toward a long-term goal of developing a hierarchical national classification standard that can facilitate a more informed decision-making process for wetland and floodplain protection and restoration and community resiliency.

Support for other Flood Science Center Initiatives:

- **Effectiveness of the Regulatory Floodway Study** - ASFPM will review the current guidelines and policies associated with floodway mapping and managing development in mapped floodways and evaluate whether these procedures support efforts to responsibly manage development within the most hazardous part of the floodplain (i.e. with the fastest and deepest floodwaters). We will document any alternatives to current procedures that may better reflect the original intent of the regulatory floodway.
- **Access to the authoritative flood model** - the flood models associated with flood studies are valuable data needed for managing development in the Special Flood Hazard Area. ASFPM is aware of a number of entities that provide access to flood models. ASFPM will document state and local authorities who provide access to flood engineering models and evaluate the potential of using the National Hydrography Dataset in conjunction with the FEMA CNMS data layer to index the engineering models and enable access.

2.3 CTP Sub-committee work items:

CTP Support - FEMA has funded ASFPM to help support Cooperating Technical Partners. The project involves documenting best practices and providing training via quarterly webinars. In conjunction with this effort, a Mapping & Engineering Standards subcommittee has been established that focuses on CTPs. Thuy Patton with Colorado and Carey Johnson with Kentucky are co-chairs of this subcommittee. The ASFPM EO (Alan Lulloff) and Carey are on the FEMA CTP Community of Practice Steering Committee. ASFPM has highlighted that the Cooperating Technical Partner program is just as much about building partnerships as it is about mapping SFHAs. The goals of the CTP Subcommittee include:

- Fostering communication among federal, state, regional, and local mapping partners and data sharing.
- Providing a forum for mentoring and building capabilities in support of CTP and National Flood Mapping Program goals.
- Identifying topics for webinars and best management practices to support the FEMA CTP grant being completed by the Executive Office.
- Encouraging and coordinating feedback on CTP issues to FEMA, including program updates, partner engagement, and participation in working groups.

2.4 2017 – 2018 Topics for Future Development

With the commitment needed to maintain the ongoing tasks and activities, the M&ES Committee is limited on the number of new activities and initiatives that can be prioritized for each year. However, the following activities have been identified as priorities for the committee and in some cases potential paper topics if a committee member desires to serve as task lead. These activities are listed below in no particular order.

- Structure level floodplain analysis
- Base Level Engineering
- LiDAR for LOMRs
- LiDAR issues
- Advanced Modeling Issues