



## United States Department of the Interior

U.S. GEOLOGICAL SURVEY

Reston, Virginia 20192

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Mail Stop 415

February 9, 2015

OFFICE OF SURFACE WATER TECHNICAL MEMORANDUM 2015.04

**SUBJECT:** USGS Furnished Flood-Inundation Map Policy

### Introduction and Purpose

The U.S. Geological Survey (USGS) is partnering through the Integrated Water Research Science and Services (IWRSS) consortium with the National Weather Service and the U.S. Army Corps of Engineers to advance consistent flood-inundation mapping across the nation. The vision is to eventually provide flood-inundation maps for most USGS streamgages.

In addition to IWRSS partners, other organizations, both public and private, also produce flood inundation maps. The purpose of this policy memorandum is to explain the process by which USGS science centers may work with partners to accept and submit peer-reviewed and documented partner-developed flood-inundation maps (FIMs) for inclusion in the USGS FIM database and for display using the USGS FIM Mapper.

### Policy

It is the policy of the USGS to publish flood-inundation maps to the USGS FIM mapper produced by all organizations as long as those products are adequately documented, peer-reviewed, meet USGS standards, and are referenced to an active USGS streamgage stage. The USGS FIM standards are described in OSW Technical Memo 2015.03.

### Review and Documentation Requirements

The Water Science Center (WSC) responsible for the operation of the streamgage used in the furnished flood-inundation map library shall submit the furnished FIM to the USGS FIM Program once the map libraries are approved by the WSC director. The director's approval must be documented in a "memo to the record" that describes briefly the location and extent of the stream reaches included in the map, identifies the partners that are furnishing the libraries, and summarizes the factors leading to the director's approval including a copy or link to an adequately reviewed, publically available documentation report. The director's approval signifies that the furnished FIM library meets USGS FIM standards (OSW Technical Memo 2015.03).

A review by two peers (USGS or non-USGS) for the adequacy of the FIM modeling, mapping, and documentation must be available in order to submit a flood inundation map

library to the USGS FIM Program. Peer reviews shall meet the USGS Fundamental Science Practices requirements described in [Survey Manual Chapter 502.3](#). Required minimum documentation standards and suggested templates are available in the [USGS FIM Toolbox](#).

### **Submission and Archiving Requirements**

Files should be prepared and submitted to the responsible WSC Director. The WSC is responsible for submission to the USGS FIM Program. Submission guidelines are available in the [USGS FIM Toolbox](#).

The final report, prepared according to guidelines in OSW Technical Memo 2015.03 should be submitted as a pdf file by the project partners through the WSC. The FIM data (final inundation area shapefiles, flood-depth grids, standard metadata, and readme files) will be prepared and submitted following the guidelines in the [USGS FIM Toolbox](#). The documentation report and data files will be hosted by the USGS and served to the public through the USGS FIM mapper.

FIM product developers are encouraged to archive and make all supporting project files (hydraulic and terrain models) available via a public website. Links can be conveyed via the report and the USGS FIM mapper.

While the expenses related to the direct, routine hosting and display of the furnished FIM libraries will be covered by the Water Mission Area, the acceptance and maintenance of a reliable FIM library will likely entail ongoing assessments and updates resulting in future WSC expenses. Funding needed to support WSC operations related to the review and submission of furnished FIM libraries and the upkeep of them is the responsibility of the WSC.

Normal interagency funding agreements may be used to fund WSC work related to furnished FIMs. In addition, there is also a need to document the process that will be employed to resolve issues regarding public inquiries and map corrections and updates.

Private sector partners and the responsible WSC may enter into a USGS Technical Assistance Agreement (TAA). To facilitate development of TAAs, a template TAA is available in the [USGS FIM toolbox \(internal\)](#). All TAAs need to be vetted through the USGS Ethics Office prior to signature by the parties and will require that the USGS principal investigator sign a Conflict of Interest statement associated with that TAA.

For any questions and/or comments, please contact Marie Peppler at [mpeppler@usgs.gov](mailto:mpeppler@usgs.gov) or 703-648-5314.

Robert R. Mason, Jr.  
Chief, Office of Surface Water

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