Prepared by/for:

Modeling, Mapping, and Consequences

Appendix 4.1.6

MMC Map Data Specifications

FY2023 Standard Operating Procedure for Dams

March 2022

Date	Principal Author	Comments
11-29-2012	MMC	SOP Updates
04/08/2014	MMC	SOP Updates
5/30/2014	MMC	Technical Edit
1/25/2015	MMC	Technical Review
1-7-2016	MMC	Reviewed Document
12/7/2016	MMC	Template Conversion/Edit
12/8/2016	MMC	Technical Review
10/4/2018	MMC	Annual Update
10/28/2019	MMC	Annual Update

SECTION 1
Basemap Data

The data used in the Modeling, Mapping, and Consequences (MMC) Dam Failure Inundation Map atlases can be divided into four broad categories: basemap, boundary, infrastructure, and inundation data. An additional class of data is annotation produced in the course of map production from attributes of the vector data. All these are stored in the MMC working geodatabase for the study dam.

Basemap imagery and street data will is provided by ESRI Online Services. Services used in the atlases include:

- World_Street_Map
- World_Shaded Relief
- Reference/World Transportation
- World_Imagery

Information about the ESRI Imagery for ArcGIS can be found at:
http://www.esri.com/software/arcgis/arcgisonline.

SECTION 2
Boundary and Infrastructure Data

The boundary and infrastructure elements are derived from national level datasets compiled by the U.S. Army Corps of Engineers (USACE) and other federal agencies. The following are sources of the data used in the maps. These layers are consolidated and provided to the mapping team in the national mapping data geodatabase.

2.1 HOMELAND INFRASTRUCTURE FOUNDATION LEVEL DATA

The proponent for the Homeland Infrastructure Foundation Level Data (HIFLD) is the Department of Homeland Security.

HIFLD Data is divided into two access groups, Open and Secure. HIFLD Open data is publically accessible via https://hifld-geoplatform.opendata.arcgis.com/

HIFLD Secure is For Official Use Only (FOUO) data that cannot be shared with the public and is available for credentialed users via the Department of Homeland Security.

The infrastructure and boundary data layers used from the HIFLD Open dataset are:

- CIKR_Airports
- CIKR_Broadcast_Comm
- CIKR_Colleges_and_Universities
- CIKR_Correctional_Facilities
- CIKR_Electric_Power_Generation
- CIKR_Electric_Substations
- CIKR_EMS
- CIKR_Fire_Stations
- CIKR_Fire_StationsEMS
- CIKR_Heliports
- CIKR_Hospitals
- CIKR_Hydroelectric_Power_Generation
- CIKR_Law_Enforcement
- CIKR_Natural_Gas_Storage
- CIKR_Nuclear_Electric_Power_Generation
- CIKR_Petroleum_Terminals
- CIKR_Schools
- CIKR_Waste_Water_Treatment_Plants
- Cities_Area
- Counties_Area
- Natural_Gas_Pipelines
- Railroads
- States_Area
- States_Line
- US_Border
- USGS_Gages

The infrastructure and boundary data layers used from the HIFLD Secure dataset are:

- CIKR_Chemical_Industries
- CIKR_Potable_Water

2.2 ESRI DATA FOR ARCGIS 10

ESRI data was copied from the distribution DVD for ArcGIS 10. The ESRI dataset used in the MMC National Data is: utmzone.

2.3 NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY DATA

The Military Grid Reference System lines were downloaded from http://earth-info.nga.mil/GandG/coordsys/gislayers/zips/world_mgrs.zip. The proponent is the National Geospatial-Intelligence Agency.

The layers used from the NGA is: Mgrs_region

2.4 NATIONAL INVENTORY OF DAMS

The National Inventory of Dams (NID) proponent is the USACE–Army Geospatial Center (AGC).

Datasets generated from NID:

- NID_Dams_NonUSACE
- NID_Dams_USACE

2.5 NATIONAL LEVEE DATABASE

The National Levee Database (NLD) is developed by USACE. The dataset continues to be updated with levee data from federal agencies, states, and tribes. So it can be updated as necessary, it is not stored with the rest of the national data.

Layers used from the NLD are:

- closure_structure_line
- floodwall_line
- levee_centerline.

2.6 UNITED STATES GEOLOGICAL SURVEY

The river gages being displayed on mapping products are from the United States Geological Survey (USGS). Datasets used is: gages.

SECTION 3
Inundation Elements

3.1 INUNDATION AREA

Data Source: HEC-RAS output database
Data Type: Raster
Use: Sheet index map, standard sheets, detail sheets