



Prepared by/for:
**Modeling, Mapping,
and Consequences**

Appendix 4.1.2

Supplemental Data Research Guide

**FY2023 Standard Operating Procedure
for Dams and Levees**

March 2022

Date	Principal Author	Comments
03-2011	MMC	Original doc
05-2013	MMC	Doc review
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
12/08/2016	MMC	Technical Review
10/4/2018	MMC	Annual Update/Technical Edit
10/28/2019	MMC	Annual Update
6/30/2021	MMC	Annual Update

In addition to the standard National Elevation Dataset (NED) pre-model data, the Modeling, Mapping, and Consequences (MMC) Geographic Information Systems (GIS) mapping and modeling team members are jointly responsible for attending the project kickoff meeting. This meeting is to notify the district that the dam or levee is going to be studied and allows the MMC to solicit pre-existing Hydraulics and Hydrology (H&H) and GIS terrain data.

1.1 PRE-EXISTING HYDRAULICS AND HYDROLOGY DATA

Contact district H&H staff to request any available information on the study dam or levee including (but not limited to):

- Existing digital models (HEC-RAS or otherwise)
- Water control manuals
- Design memorandums
- As-built drawings
- Any updates to drawings
- Top of dam profile data
- Levee profile data
- Screening profile risk assessment (SPRA) reports
- Potential failure mode analysis (PFMA) reports
- Any other information they think might be useful.

1.2 PRE-EXISTING GEOGRAPHIC INFORMATION SYSTEMS DATA

Contact district GIS staff to request any available data relevant to the MMC study. The most emphasis is on elevation data, specifically if the district has possession of or knowledge of elevation datasets that are more accurate than the existing NED data. Best available data should be used for the MMC study. The district may have a previous CWMS basin study for the same area. The CWMS terrain may be best available terrain if no major changes or new data has been collected since the CWMS study.

1.3 DATA TRANSFER

Any available H&H data should be collected on every dam and levee. If a district has access to digital elevation model (DEM) data better than the NED and it is readily available, it should be collected, but may not be processed for use in the project unless specifically requested by the modeler. If the elevation data requires significant processing (i.e., light detection and ranging [LiDAR]) or is not readily available, the information is recorded so it can be gathered if needed. Information should be collected electronically via file transfer protocol (FTP) if possible. If file sizes are too large for FTP to be feasible, the data should be shipped on temporary media or storage devices (hard drives can be sent to the district for this purpose). If only hardcopy documentation and/or maps exist, record the information and provide them to the modeler.

1.4 DOCUMENTATION

All available data, whether collected or not, should be recorded in the following format so that future data requests can be targeted to the correct dataset and POC.

Create a Microsoft Word document data manifest for each study dam or levee from the following example.

Study Dam or Levee Name
USACE
Division
District

Division Dam or Levee Safety Officer Contact Information

District Dam or Levee Safety Officer Contact Information

GIS Technical POC Information

H&H Technical POC Information

Available Data (Collected)
 Dataset/Document Name
 File Location
 POC Name
 Notes

Available Data (Not Collected)
 Dataset/Document Name
 POC Name
 Notes

For each dataset/document collected or recorded, the POC name should tie to a complete point of contact under one of the technical point of contact headings. There may be multiple H&H or GIS contacts for each project.

After collecting and cataloging the available data, organize the data into the following folder structure and provide to the MMC GIS lead so the information can be passed on to the modeler responsible for the dam or levee.

- Root
 - [Dam_Name] or [Levee_Name] (folder)
 - HH_Data (folder)
 - Any digital H&H datasets or models.
 - HH_Documentation (folder)
 - Any digital documents or tables.
 - GIS_Data (folder)
 - Any digital GIS datasets.
 - Manifest
 - The Word document created describing the data cataloged.

Any data and information collected should go into the district data folder under reference materials. See Appendix 4.3.1, MMC File Schema Guide.