HYDRAULIC AND DAM BREACH METADATA

HYDRAULIC MODELING METADATA TABLES

In the tables below, the modeler will need to identify which scenario their descriptions apply to in the second column or copy applicable Flow Data and Geometry Input tables to better describe each scenario. For example, different scenarios may use different initial and boundary conditions; these should be described and assigned to a scenario in the Description Column of the Flow Data table.

General Information:

Category	Description
Project Name:	
Confidential Nature of Project:	
Model Purpose:	
Date of last edits:	
Engineering Firm(s):	
Modeler/Originator:	
Contact(s) for digital file sharing (i.e., owner, regulator, engineering firm)	
Software Name and Version:	
General Model Assumptions: (i.e., 1D vs. 2D, steady vs. unsteady, etc.)	
Limitations:	
Modeled Scenarios (provide the Plan name(s) and associated geometry/flow files):	

Flow Data Input Information:
Copy table as needed for multiple flow scenarios

Category	Description
Flow Data Source(s): (e.g., stream gage, runoff model, USGS StreamStats, etc.)	
Boundary Conditions (BCs): (e.g., location, type, steady vs. unsteady flow, flow rates, water surface elevations (WSELs), internal BCs etc.)	
Initial Conditions (ICs): (e.g., initial elevations or flows, restart filenames, etc.)	
Other applicable input data: (e.g., meteorological data, observed data, etc.)	

Geometry Editor Input Information:
Copy table as needed for multiple geometries.

Category	Description
Terrain Source(s): (e.g., USGS, State GIS database, horizontal and vertical datums, data resolution):	
Terrain Modification(s): (description of any modifications to the existing surface and/or proposed design alternatives)	
1D cross-section spacing or 2D mesh cell sizes:	
Source(s) of energy loss coefficients and surface roughness values: (e.g., Landcover dataset, field observations, etc.)	
Source(s) of reservoir/dam characteristics: (e.g., key elevations, stage-storage, stage-discharge curves)	

Category	Description
Inline structure/bridge characteristics: (e.g., sources of key elevations/geometry, stage-discharge curves, solver type etc.)	
Other applicable input data:	

Flow Analysis Input Information:
Copy table as needed for multiple flow analyses scenarios

Category	Description
Solver used: (e.g., diffusion wave, SWE-ELM, subcritical, mixed)	
Computation Settings: (e.g., timesteps, output intervals)	
Other applicable input data:	

DAM BREACH METADATA TABLE

Modeler needs to note breach geometry and/or methodology for each scenario modeled.

Breach Geometry Input Information:

Category	Description
Breach Scenarios: (e.g., IDF, sunny-day, top of dam, etc.)	
Method(s) used: (e.g., FERC, USACE, Froehlich 1995 or 2008, MacDonald 1984, etc.)	
Assumed failure mode: (i.e., overtopping or internal erosion)	
Breach Invert:	
Bottom Width:	
Side Slopes:	
Formation Time:	
Other applicable input data:	