United States Department of Agriculture

NC-ENG-34
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HAZARD CLASSIFICATION DATA SHEET FOR DAMS

Landowner:	**County:**
Community or Group No.:	**Conservation Plan No.:**
Estimated Depth of Water to Top of Dam: _____ Ft.	
Length of Flood Pool: _____Ft.	
Date of Field Hazard Investigation: _____	

Evaluation by reach of flood plain downstream to the point of estimated minor effect from sudden dam failure.

Reach	Length (Ft.)	Width (Ft.)	Slope (%)	Land Use	Kind of Improvements	Est. Elev. Improvements Above Flood Plain (Ft.)	Est. Elevation of Breach Floodwater Above Flood Plain (Ft.)
1							
2							
3							

Describe potential for loss of life and damage to existing or probable future downstream improvements from a sudden breach:

Hazard Classification of Dam (low, significant, high) (see NEM-Part 520.21) _____

Dam Classification (I, II, III, IV, V) _____

By: Name: _____ Title:_____ Date: _____

Concurred by: Name: _____ Title: _____ Date: _____

Note: 1. Instructions on reverse side.
2. Attach additional sheets as needed.

Instructions

All dams built with technical assistance from the Natural Resources Conservation Service must have a hazard classification assigned by the person responsible for approving the design. Most farm ponds, except in borderline cases, can be classified after a complete field investigation without assuming failure and making breach studies. This data sheet is to be used for recording the information obtained through field studies and for documenting the hazard classification. Where there is a possibility for loss of life or major property damage from a dam failure, an approved breach routing procedure is to be used. (Consult with the area engineer.)

Hazard classifications of dams are made by evaluating the possibility for loss of life and the extent of damage that would result if the dam should suddenly breach – that is – a section of the dam be suddenly and completely washed out. It is to be assumed that a wall of water will be released equal to the height of the dam. This flood wave will be reduced in height as it moves down the flood plain. The wave height (depth of flooding) should be evaluated for a sufficient distance downstream until the estimated flood level will not cause significant damage to improvements, such as homes, buildings, roads, utilities, reservoirs, etc. The breach flood level will be reduced depending on the valley storage, slope, and openness of the flood plain; however, in a narrow steep valley, slopes steeper than 10% should be given special consideration. One method of evaluation is to compare available valley storage (under flood conditions) to impoundment storage (figured to the top of the dam) for each reach evaluated with a judgement estimate made of the flood wave height at all critical points downstream.

Should there be any questions about the hazard classification for a dam, the area engineer should be consulted before making design commitments.