

Emergency Action Plan (EAP) for Village of Tarrytown Dam Westchester County, New York

Design Data

Owner

Village of Tarrytown,
New York

Location

Village of Tarrytown,
New York



PCI prepared the Emergency Action Plan (EAP) based on FEMA 64 guidelines for the Village of Tarrytown high hazard dam. The project comprises of a detailed dam break analysis conducted on HEC-RAS. The dam break analysis includes the following:

- Determination of dam physical condition, type, hydrological and hydraulic parameters.
- Determination of mechanism of failure. This includes realistic assumption for dam breach (size and shape), time of breach formation, hydraulic head and reservoir data information.
- Determination of Dam failure hydrograph for two extreme scenarios such as “Sunny Day” reservoir at normal full pool elevation, normal stream flow condition and “Flood Flow Condition” i. e. failure at inflow design flood (IDF) equivalent to PMF as required by NYSDEC.
- Routing of the Dam failure hydrograph (the resulting flood wave) down stream for determination/delineation of “Inundation Map”.
- Sensitivity Analysis to investigate the effect of failure on downstream areas.
- Preparation of Evacuation map based on the inundation area delineation.
- Topographic map for digital terrain modeling (DTM) for the down stream area, to create import file (geospatial data) for HEC-RAS. The geospatial data will be prepared using HEC-GeoRAS.

PCI
Professional Consulting, Inc.

Consulting Engineers