QUICK-2 v.2.0

Model Uses QUICK-2 is a simpler version of HEC-2 or HEC-RAS that can be used to compute flood Water Surface Elevations.

Major Categories Hydrology and Water Use

Subject Knowledge Level
Intermediate

Minor Categories Flood

Technical Difficulty Level
Intermediate

Model Type Physical Model

Geographic in Nature?
No

Abstract
QUICK-2 is a user friendly program that assists in the computation of flood Water Surface Elevations (WSEs) in open channels of all types. It is much easier to use than the United States Army Corps of Engineers (USACE) HEC-2 or HEC-RAS programs. However, a QUICK-2 step-backwater file can also be used, as is, with the HEC-2 program, which is also included in the QUICK-2 package of programs. Therefore a HEC-2 output file can be generated with a QUICK-2 input data file, without ever leaving the QUICK-2 environment; and, without having to know how to set-up and run the HEC-2 program. Since, HEC-2 files can be converted to HEC-RAS files by the HEC-RAS program; Quick-2 files are thus "compatible" for use with HEC-RAS without the need for purchasing any additional software. This version of QUICK-2 (Version 2.0) however, does not perform hydraulic calculations through bridges or culverts.

QUICK-2 was primarily developed to accompany the FEMA technical guidance manual titled, "MANAGING FLOODPLAIN DEVELOPMENT IN ZONE A AREAS - A GUIDE FOR OBTAINING AND DEVELOPING BASE FLOOD ELEVATIONS." That manual is intended to assist local community officials who are responsible for administering and enforcing the floodplain management requirements of the National Flood Insurance Program (NFIP). The purpose of that manual is to provide guidance for obtaining and developing base flood (100-year) elevations (BFEs) where Special Flood Hazard Areas (SFHAs) on a community's Flood Hazard Boundary Map (FHBM) or Flood Insurance Rate Map (FIRM) have been identified and designated as Zone A.

QUICK-2 will also be useful to community engineers, architect/engineer firms, developers, builders and others at the local level who may be required to develop BFEs for use in Special Flood Hazard Areas.

Future Developments
Unknown

Model Limitations
Unknown

Model Features
Computation of:

- Channel Capacity
- Normal Depth, and
- Step-Backwater Analysis (similar to the USACE HEC-2 and HEC-RAS programs)
- Critical Depth is also computed automatically for all Cross Section Capacity and Normal Depth Method computations, and during the Step-Backwater Method computations as necessary.
- Can handle cross section shapes including V, Trapezodial, Rectangular, Circular and Irregular.
- Includes automatic error checks

Required Data Types
Data input is based on a menu-screen system with user-prompted questions.

Model Outputs
Data results are published to a set of result screens.

Hardware Requirements

Windows 95 Users:	
Random Access Mem (RAM):	8-16Mb
Hard disk storage:	10Mb
Monitor:	Color
Screen Resolution (Rec. Min):	800x 600 256 colors
Printer:	Dot-matrix to Laser Jet
Disk Operating Sys (DOS):	Version 6.2 or higher

Windows 3.x Users	
Random Access Mem (RAM):	4-8Mb
Hard disk storage:	8Mb
Monitor:	Color
Screen Resolution (Rec. Min.):	800x 600 16 colors
Printer:	Dot-matrix to Laser Jet
Disk Operating Sys (DOS):	Version 6.2 or higher

Supported Platforms

DOS	☐	**UNIX**	☐
Windows	☒	**Macintosh**	☐

Software Requirements
None noted

Cost, Licensing and Availability
Free – available from link below.

Source
Federal Emergency Management Agency

Source URL
http://www.fema.gov/fhm/dl_qck22.shtm#ar