QUAL2EU

Model Uses   QUAL2EU is a steady state model and planning tool used for evaluating conventional pollutants in branching streams and well mixed lakes.

Major Categories Water Quality	<u>**Subject Knowledge Level**</u> Intermediate
Minor Categories Pollution	<u>**Technical Difficulty Level**</u> Intermediate
Model Type Physical Model	<u>**Geographic in Nature?**</u> No

Abstract

The Enhanced Stream Water Quality Model (QUAL2E) is a steady state model for conventional pollutants in branching streams and well mixed lakes. It can be operated either as a steady-state or dynamic model and is intended for use as a water quality planning tool. The model can be used to study impact of waste loads on in-stream water quality and identify magnitude and quality characteristics of non-point waste loads.

The Enhanced Stream Water Quality Model with Uncertainty Analysis (QUAL2EU) is an enhancement to the QUAL2E model that allows the user to perform uncertainty analysis. Three uncertainty options are available. AQUAL2 is an interactive data preprocessor program for the QUAL2E and QUAL2EU models. AQUAL2 can be used to build input data files for either model. Q2PLOT is an interactive data post processor program for both.

Future Developments
Unknown

Model Limitations
- Maximum of 25 reaches
- No more than 20 computational elements per reach, or a total of 250
- A maximum of 7 headwater elements
- A maximum of 6 junction elements
- A maximum of 25 input and withdrawl elements

Model Features
- Performance of uncertainity analysis through AQUAL2 (data pre-processor), and post data processing through Q2PLOT.

Required Data Types
User inputs data through a series of parameter definitions at the DOS prompt.

Model Outputs
After executing a QUAL2EU model system executable task image file, exiting HSPF, and returning to the DOS prompt, the user can view an output file, if any, produced by the execution of a program or model if and only if that file is in ASCII text (non-binary) format. Results can be viewed by scrolling through the output file that was (1) a result of model or program execution and/or (2) named by the user at a run time prompt. A word processor or text editor is convenient for this purpose.

Hardware Requirements
QUAL2E typically requires 256kb of memory and uses a single system input device (cards or disk file) and the system's line printer (or disk file) as the output devices

Software Requirements
None noted

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

Source
US Environmental Protection Agency

Source URL
http://www.epa.gov/ceampubl/swater/qual2eu/

Supported Platforms

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