

COMPUTER APPLICATIONS FOR EVALUATION OF WATER-QUALITY IMPACTS OF COAL MINING¹

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Abstract: Minimizing impacts of coal mining on surface-water and ground-water quality is mandated by Federal regulations. As part of the impact evaluation, premining (baseline), mining and postmining water-quality must all be taken into consideration. The efficient management and logical analysis of water-quality data is fundamental to this process. The Office of Surface Mining's Technical Information Processing System (TIPS) offers a variety of software programs that can be used for both large- and small-scale water-quality studies. Applications include database management, statistical analysis, graphical presentations and three-dimensional modelling. Use of the TIPS computer applications, in conjunction with a well-lanced sampling and quality assurance/quality control program, can be a valuable tool for accurately determining water-quality changes due to mining.

Additional Key Words: TIPS computer applications, database management, statistical analysis, graphical presentations, three-dimensional modelling

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