



## Risk Assessment

**Description of Technology** Environmental risk assessment tools developed at the Waterways Experiment Station, U.S. Army Engineer Research and Development Center (ERDC) include guidance for evaluating the risk posed by contaminated sediment and models for evaluating the likelihood for toxicity following contaminant exposure.

**Benefits** The environmental risk assessment tools developed at ERDC provide the means to characterize and describe the risk posed by contaminants to human health and the environment. These tools will enhance our ability to quantify the potential for adverse impacts caused by exposure to environmental contaminants. The guidance, databases, and models developed as tools for risk assessment will reduce our dependence on uncertainty factors and increase our ability to make objective determinations about the environmental risks posed by contaminants.

**Significant Accomplishments** An extensive database of tissue contaminant residue data and associated measures of toxicity has been developed to provide needed interpretive guidance for bioaccumulation data commonly collected in ecological risk assessments. Population models for aquatic organisms have been developed and used to project the ecological impacts caused by exposure to contaminated media. Risk-based guidance for evaluating contaminated sediment was published in 2005.

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