

KATHLEEN P. FERGUSON, Ph.D.

EDUCATION:

Ph.D., Forest Biology/Soils, Iowa State University, 1983

M.S., Soil Biology and Biochemistry/Statistics, University of Maryland, 1978

B.S., Natural Resource Management/Wildlife and Fisheries, University of Maryland, 1972

PROFESSIONAL EXPERIENCE:

2005-present. Senior Scientist, Cambridge Environmental Inc., Frederick, Maryland.

1984-2005. Senior Staff Scientist, Dynamac Corporation, Rockville, Maryland.

SELECTED EXPERIENCE:

US EPA, Office of Pesticide Programs, Environmental Fate and Effects Division, Environmental Fate and Ecotoxicity of Pesticides, Senior Scientist and Program Manager

Technical responsibilities include the review, statistical evaluation, and technical editing of chemical and biological data pertaining to the behavior of pesticides in terrestrial and aquatic ecosystems, and the assessment of the impact of pesticide use under a range of environmental scenarios.

US Department of the Interior, Bureau of Land Management; U.S. Forest Service; and EPA Regions 1, 2, 3, and 4; Senior Staff Scientist

Prepared ecological and human health risk assessments of soil, air, surface water, groundwater, and air contamination related to site activities in accordance with CERCLA and RCRA. Advised on risk policy issues, including sampling strategy, modeling, and statistical analysis. Critically evaluated soil and water sampling procedures, data quality, and contaminant fate and transport modeling. Analyzed the assumptions and numerical data used in calculating oral, dermal, and inhalation exposure concentrations at exposure sites. Evaluated the adequacy of habitat characterization, problem formulation and definition, identification of exposure pathways, selection and characterization of ecological receptors, assessment of potential exposure levels, and characterization of ecological risks.

Ecological Design Teams in US EPA Regions 3 and 4, Senior Staff Scientist

Developed detailed risk assessment protocols and advised on scientific issues, such as biological testing to reduce risk uncertainties, transport modeling assumptions, the validity of 95% Upper Confidence Limits compared to Maximum and Central Tendency risk calculations, the use and limitations of probabilistic models in risk assessments, and the use of statistics in performing background comparisons.

US Department of the Interior, Bureau of Land Management; Senior Staff Scientist

Prepared technical report with recommendations concerning laboratory and field procedures for quantitatively assessing injury to soils arising from discharges of oil and other hazardous substances as guidance for Natural Resource Damage Assessments.