

Fritz Boettner

Principal
Geographic Information Systems



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Profile

Mr. Boettner has over ten years of professional experience in a wide array of environmental consulting activities. He has developed and managed complex environmental projects, including organizing resources, outlining project scopes, and developing and working within project budgets. He offers clients expertise in applying computer-based GIS systems, simulations, and animation. He utilizes GIS and computer visualization to complete projects at the local, regional, and national levels in the fields of planning, water resources, and environmental science. He also has experience performing complex spatial analysis to assist with natural resource management, as well as providing GIS tools and support.

Skills and Experience

Project developer and coordinator to create a spatially explicit data analysis and modeling system that will conduct fish habitat condition assessments across the Midwest and Great Plains, based on a range of habitat condition metrics.

Project developer and manager for the development of a methodology that will inventory, score, and ultimately index forest and water resources in all Appalachian counties for a federal agency.

Significant experience as a GIS coordinator for alternative analysis studies, which include a wide array of impact analyses, modeling, and multiple criteria decision making (MCDM). Coordinating and working with multiple resource specialists, sub-consultants and government officials.

Served as GIS project manager lead for large-scale environmental impact statements and environmental assessments. Provided resource specialists with analyzed data and helped create an online public comment database that serves as the public participation piece of the overall study.

Project manager and lead investigator for watershed-based plans and studies throughout West Virginia.

Experience in surface- and ground-water quality monitoring, planning, and research design.

Performed GIS analysis and provided expert testimony regarding the extent of surface mining impacts to streams in the eastern coal fields of Kentucky,

Served as GIS technical lead for developing a GIS-based routing and siting analysis model for electric transmission line construction corridor for a wind farm.

Provided GIS coordination for infrastructure assessment projects for the United States Air Force. The project utilized GIS technology to analyze, inventory, and ultimately report all utility infrastructure on bases in North America.

Performed and lead ASTM Phase I and II Environmental Site Assessments.

Education

M.S., Environmental Management, West Virginia University, 2002. Emphasis in environmental management, law, and policy; considerable coursework, research, and utilization of GIS.

B.S., Parks and Recreation, Natural Resource Management, West Virginia University, 1998.

Representative Publications

Hartz L, Boettner F, Clinger J. 2011. Greenbrier Valley local food: the possibilities and potential. Prepared for Greenbrier Valley Economic Development Corporation. Downstream Strategies.

Boettner F, Hansen E, Hereford A, Martin R, Zegre S. 2011. Elk Headwaters GIS analysis, data, and management system. Submitted to West Virginia Department of Environmental Protection. Downstream Strategies.

Downstream Strategies. 2010. Spatial analysis of coal mining impacts on eastern Kentucky watersheds. (Primary author: F Boettner.)

Boettner F, Hereford A, Hansen E, Merritt A, Burns D. 2009. Watershed-based plan: Muddy Creek of the Greenbrier River, West Virginia. Downstream Strategies.