Threats to Public Health and Safety from the Proposed Kentucky Trimodal Transpark, Warren County, Kentucky

Alan Glennon
Chris Groves, PhD
Rhonda Pfaff
Laura DeMott
Daniel Hatcher
Julie Neltner
Melissa Thornton
Hoffman Environmental Research Institute
Western Kentucky University

Abstract

The Kentucky Trimodal Transpark is a proposed 5,000-acre industrial park being planned by the government of Warren County, Kentucky. The philosophy behind the development is to create a transportation-based industrial park with access to highway, rail, and air transportation. For the development, the Warren County government has selected a location between the City of Bowling Green and Mammoth Cave National Park. The entire proposed development and surrounding area is situated on a highlykarstified sinkhole plain. All drainage is through the subsurface. Numerous public health and safety issues have arisen during the site's feasibility and planning phase. Public safety issues include sinkhole flooding, surface and groundwater contamination, cover collapse, collapse of lagoons resulting in waste spills, air quality degradation, increased congestion along roadways, urban sprawl (pressure on public health and safety infrastructure), radon, and noise. Health threats from the proposed industrial airport include cancer, asthma, liver damage, lung disease, lymphoma, depression, myeloid leukemia, and tumors. Furthermore, many of these public health and safety concerns are exacerbated by the presence of the highly-karstified landscape. For this investigation, a Geographic Information System has been developed using ESRI ArcView 8.1 to describe, analyze, and predict public health and safety issues and their relationship to the area's karstlands. Digital data from this report are available at: http://hoffman.wku.edu