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## An Interface between the Agricultural Non-Point Source (AGNPS) Pollution Model and the ERDAS Imagine Geographic Information System (GIS)

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Michael P. Finn<sup>1\*</sup>, E. Lynn Usery<sup>1</sup>, Douglas J. Scheidt<sup>1,2</sup>, Gregory M. Jaromack<sup>1,3</sup>, Timothy D. Krupinski<sup>1</sup>

<sup>1</sup>U.S. Geological Survey, National Geospatial Technical Operations Center, Rolla, Missouri, USA

<sup>\*</sup>Corresponding author. USGS, NGTOC, 1400 Independence Road, Rolla, MO 65401, USA

E-mail: mfinn@usgs.gov

<sup>2</sup>Now with AT&T, Inc., St. Louis, MO.

<sup>3</sup>Now with Werner Enterprises, Inc., Omaha, NE

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### Abstract

The U.S. Department of Agriculture developed the Agricultural Non-Point Source (AGNPS) pollution model. The AGNPS pollution model simulates the behavior of runoff, sediment, and nutrient transport from watersheds that have agriculture as their prime use. This model has been used extensively by scientists conducting hydrologic or water quality analyses using computer modeling in an attempt to further understand the complex problem of managing non-point sources of pollution in a watershed hydrology domain. A difficulty with AGNPS is creating and formatting all of the data necessary to execute the model to conduct landscape modeling and watershed analyses. A unique Windows-based program, the AGNPS Data Generator (*ADGen*), has been developed to simplify the task of preparing and creating the input for AGNPS through an interface with ERDAS Imagine (a Leica Geosystems product). Because of the complexity and quantity of the input required and the nature of the output text file produced by AGNPS, *ADGen* is a helpful tool for the researcher who is trying to analyze non-point source pollution.

### Keywords

pollution model, non-point source, GIS, landscape, AGNPS, watershed, environmental modeling, software

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