

Science in Support of Addressing National Concerns of Environmental and Human Health

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In recent months, the news media have reported increasing concerns about the effects that a growing number of concentrated animal feeding operations (AFOs) might have on water resources and the environment. Concerns include the possible release to the hydrologic cycle of an excessive volume of nutrients and the introduction of antibiotics used in animal husbandry. The U.S. Geological Survey (USGS), as a leading science agency within the Department of the Interior, has responsibility to provide Federal and State management and regulatory agencies with reliable and comprehensive scientific information needed for assessing the extent to which human and environmental health might be at risk. The USGS has convened this meeting to (1) provide a forum in which scientists, managers, and producers can share information and form partnerships to address AFO issues; and (2) listen and respond better to the needs of other agencies and organizations.

Integrated science and professional partnerships with university and government researchers and resource managers are part of the key to the resolution of complex environmental issues. Having a nationally distributed, multidisciplinary workforce, the USGS conducts a wide variety of short- and long-term studies, research, and methods development that are field and laboratory based. Scientific expertise is integrated among biologists, hydrologists, geologists, chemists, cartographers, statisticians, mathematicians, computer modelers, and other disciplines to provide the scientific underpinning needed to address global and regional concerns. The development and use of nationally consistent and technically sound protocols and quality-assurance procedures is an emphasis in all studies. Such studies typically are initiated in direct response to requests from local or State agencies, in addition to those developed in partnership with other federal and international agencies. The development and maintenance of long-term national and international databases is a vital component of the USGS program.

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