
University of Pennsylvania
Institute for Environmental Studies

Presents



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Mississippi Mud: More Water Behind River's
Fine Sediment Problem

During the past several decades, upper Midwest state and local agencies have spent hundreds of millions of dollars on extraordinary conservation efforts to prevent the Upper Mississippi River from filling with mud, waste, and excess nutrients. Yet the waterway, which winds through prime agricultural lands, has seen an apparent ten-fold increase in sediment since the early 20th century. Fingers point to intensive farming practices and new-fangled farm implements, and critics charge that soil conservation, updated tillage practices, and drainage solutions aimed at fixing the problem are not working. Increased average precipitation, possibly due to climate change exacerbates the problem. In addition to increased precipitation, water is being routed more quickly to the river via an ever-expanding network of underground drainage pipes. Catastrophic floods in 1993 and 2008 floods caused economic losses in excess of one billion dollars. 2011 brought even more misery as higher-than-normal snowpack melt and precipitation inundated farms and communities.

Dr. Willenbring will describe new tools developed in the past several years that allow us to track sediment as it moves through landscapes and rivers and to identify 'natural' sediment sources versus recent sediment sources. Data from these novel geochemical tracers suggest that we are facing a new challenge in remediating nonpoint-source sediment pollution. Management efforts must expand from mitigating soil erosion and agricultural practices to monitoring factors contributing to increased runoff.

Date: January 25, 2012

Time: NOON - 1:30 pm

Place: Carolyn Hoff Lynch Auditorium

On the Penn campus: Chemistry Building
34 & Spruce Sts. (enter on 34 St)

NO REGISTRATION REQUIRED

Direct questions to: 215-573-3164

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