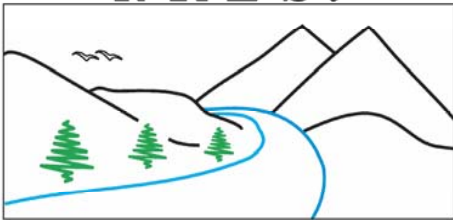


NRESi



"Our environment is our future"

RESEARCH COLLOQUIUM SERIES

Dr. Larry McKay



2008 GSA Birdsall-Dreiss Distinguished Lecturer
University of Tennessee

WEDNESDAY

Sept. 10, 2008

3:30 - 4:30

LECTURE THEATRE

7 - 152

LIGHT
REFRESHMENTS
SERVED AT 3:20 PM

Chattanooga Creek:

How 30,000 tons of Coal Tar Brought Together Scientists, Social Workers and a Community

Chattanooga Creek flows through a mixture of low income urban neighborhoods, commercial developments and old industrial sites. One of the largest contaminant sources in the area is a former manufactured gas/coke plant, which is typical of many of the thousands of such sites found across the U.S. Researchers at the University of Tennessee (UT) investigated distribution and transport coal tar compounds (mostly PAHs) in the soils at the coke plant site and in laboratory experiments. The studies show that immiscible tar and dissolved PAHs can readily penetrate fractures and macropores in the fine-grained soils and are transported through groundwater at substantially higher rates than previously expected. However, contamination is also widespread in the creek, which was the principal concern of local residents. In response to community concerns, we shifted our research to focus on transport and persistence of PAHs in the streambed and floodplain, as well as investigations of the residual contamination that remains after typical excavation-based cleanup measures. In conjunction with the scientific research, we've worked with the UT College of Social Work and local community groups to establish an Environmental Health and Justice Collaborative, which is funded by the National Institute for Environmental Health.

Activities for the collaborative include environmental education for residents, health and wellness training, mentoring of high schools students and collaboration with environmental health researchers. The point of this story is that successfully dealing with environmental problems often requires collaboration between a variety of different groups, including local residents, community activists, scientific researchers and regulatory agencies.