Appendix G – Project Flyer

Sustainable Energy Parks
on Mine Scarred Lands in Appalachia

A pilot program to develop a framework for the establishment of Sustainable Energy Parks (SEPs) on mine-scarred lands in Appalachia. SEPs will benefit the environment and mining communities by producing renewable energy, reducing greenhouse gas emissions, protecting and restoring water quality and degraded lands, diversifying our energy portfolio and enhancing of the region's economic competitiveness.

Project Personnel

Paul Ziemkiewicz, Director, WVWRI, Principal Investigator
(304) 293-2867 x 5441, paul.ziemkiewicz@mail.wvu.edu

Tamara Vandivort, Assistant Director, WVWRI, Project Management (304) 293-2867 x 5448
tamara.vandivort@mail.wvu.edu

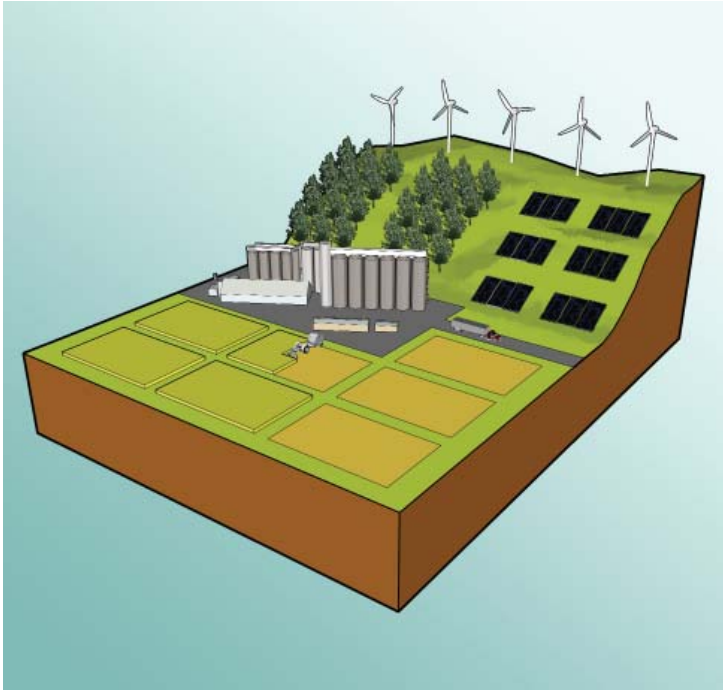
Brady Gutta, Research Associate, WVWRI,
(304) 293-2867 x 5445, Brady.Gutta@mail.wvu.edu

Patrick Kirby, Director, Northern WV Brownfields Assistance Center, (304) 293-2867 x 5459
Patrick.kirby@mail.wvu.edu

David Saville, Outreach Coordinator,
(304) 293-2867 x 5458, dave.saville@mail.wvu.edu

Funding: US EPA $600,000.00

Mine Scarred lands could help provide the large acreages necessary to establish Solar Power generating Arrays



Project Description:

Initially, the West Virginia Water Research Institute will identify mine-scarred lands suitable for the growing of switchgrass as biomass to produce alternative transportation fuels, electricity and heat. Additional consideration will be given to the potential of other forms of alternative energy generation such as wind, solar and geothermal. As a sustainable reuse of brownfields, these SEPs will provide a catalyst to foster a "green" energy companion to coal in Appalachia.

Switchgrass is a superior plant for bio-fuel production for many reasons. It will grow in many areas of the United States, offers high yields, efficiently uses available soil nutrients, is perennial, and requires no irrigation. It captures carbon from the air and stores it in the soil and is an efficient energy producer. Because it has a large and very deep root structure it holds soil thus reducing erosion and its high evapotranspiration rate further reduces runoff when planted on former mining sites. It has a flexible harvesting schedule and can be grown and harvested using conventional farming equipment.

Sites will be evaluated and assessed for their SEP potential. The preferred project location will take advantage of existing infrastructure such as transportation, a large contiguous land mass and a labor force familiar with processing natural resources. One selected site will then be developed and showcased as a pilot SEP project.

Paul Ziemkiewicz, Ph.D. WVWRI Director examines a test plot of switchgrass on a former surface mine.

Located within WVU's National Research Center for Coal and Energy, the West Virginia Water Research Institute has been in existence since 1967 and serves as a statewide vehicle for performing research related to water issues. It is the premier water research center in West Virginia and, within selected fields, an international leader.

West Virginia Water Research Institute

West Virginia Water Research Institute

150 Evansdale Dr. NRCCE Building
PO Box 6064
Morgantown, WV 26506
Telephone: (304) 293-2867
Fax: (304) 293-7822
www.wvwri.nrcce.wvu.edu