

Changing Landscapes Developing a Comprehensive Land Use/Land Cover Program for the Commonwealth of Pennsylvania (71)

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Almost daily we hear of new evidence confirming that global environmental change is happening all around us. As humans have modified the landscape, first for food and fiber through agriculture and more recently through industrialization and urbanization, we've had a growing impact on surrounding environmental systems. We are now beginning to feel the effects of these impacts on the land surface—soils, water and vegetation—and the subsequent impact on our micro- and macro- climates (urban heat island), water quantity and quality, and biodiversity. At this time, more than ever, the academic community must develop new outreach efforts to help the average citizen connect to their surroundings with a deeper understanding of the long-term implications for human impacts on landscapes. The audience for this new effort spans the complete range of citizens, from urban, to suburban, to rural—individuals in each of these community settings will benefit from a deeper understanding of the consequences of land use and land cover changes occurring around them.

Our developing program, entitled “Changing Landscapes” addresses the need for high quality information about land use and land cover in the Commonwealth of Pennsylvania. The components of this program include areas devoted to core information resources development as well as traditional and web-based education elements. With support from the PA Department of Conservation and Natural Resources (PADCNR), we are currently developing core information resources including an historical aerial photography database known as PennPilot, with nearly statewide 100,000 images dating from the 1930's. The PAMAP project, initiated in 2003, is producing high resolution (1' foot pixels) digital orthophotography statewide on a continuous basis. These resources, along with high-resolution satellite data provide, in turn, the basis for the PALand effort also sponsored by PADCNR. PALand, when completed in mid-2007, will provide the first generation of an anticipated long-term, continuously-revised statewide land cover map for PA.

The core of our education program is focused on conveying the impact of human modification of PA's land surface to the citizens of the Commonwealth. We seek to support both individual education as well as multi-group interactions through a unique combination of traditional outreach approaches as well as web-based tools. We believe that citizen groups, such as local watershed organizations, in all regions of the Commonwealth can participate simultaneously and have discussions around various topic points fostered via the web-based educational resources and tools that we develop. In this way their understanding of interdependence can be fostered and new civic relationships built. We seek to not only build capacity with future decision makers

about landscape change, but to also inform the current generation of decision makers on how their decisions about land use impact the total quality of community life.

This presentation will focus on the challenges of building a comprehensive land use/land cover change program and our approach to combining core information on land use and land cover with both traditional and web-based educational resources.