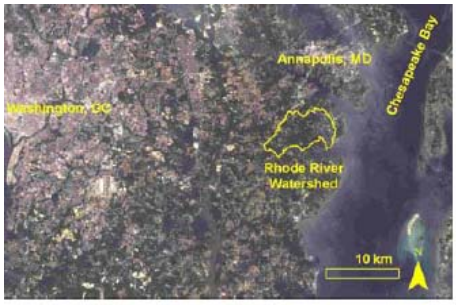
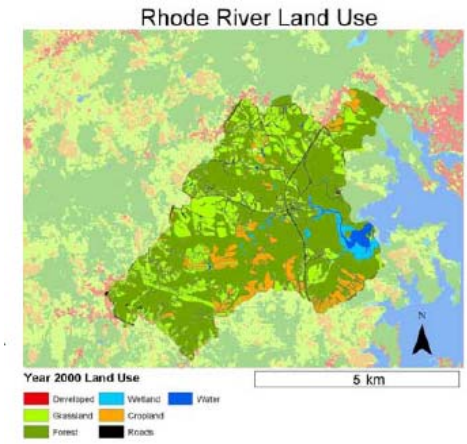
Smithsonian Environmental Research Center Site

Contact: Pat Megonigal (megonigalp@si.edu)

The Smithsonian Environmental Research Center (SERC) is world renown for long term ecological studies at the land-sea margin. Our research is both local and global, including studies on land use, eutrophication, climate change, invasive species and many other ecological challenges. Our long term data sets on watershed discharge, stream chemistry, elevated CO_2 responses, UV radiation, and forest cover span 20-32 years. For 40 years, SERC has been engaged in research, professional training, and environmental education (http://www.serc.si.edu).

The research center is located 25 miles from the Nation's Capital, along the western shores of the Chesapeake Bay. The main campus encompasses 2,800 acres of land, and is expected to grow in size. Land uses include forest (60%), grassland pasture (32%), cropland (6%), freshwater and tidal marshes (1%). Much of our research focuses on the Rhode River subestuary and its 12-square-mile watershed as a model system for the enormous Chesapeake drainage basin. Like the Chesapeake watershed itself, the Rhode River watershed has been impacted by human activities such as agriculture, forestry, and extensive commercial fishing; there has also been an influx of diffuse pollutants, and invasions by non-native plants and aquatic organisms.





The SERC site supports research missions with considerable existing infrastructure. Most of the Center's land is available for various research activities, including large, contiguous tracts of pasture and cropland (1200 ha), and forest (2000 ha). Importantly, land use decisions on the property are made locally by SERC staff. We maintain a network of eight stream weirs that have been sampled for water chemistry for >30 years, a forest canopy tower, a second tower measuring UV radiation and mercury deposition, and meteorological stations. The campus has 38,000 ft_2 of lab and office space, 35 dormitory beds, a dock on the Chesapeake Bay, and T3 data lines. Finally, we have a close partnership with the Smithsonian Conservation Research Center, an ideal wildland research site.