



THE WOODS HOLE RESEARCH CENTER

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Woods Hole Research Center Poster Addresses Land Use Change in Southeastern Massachusetts

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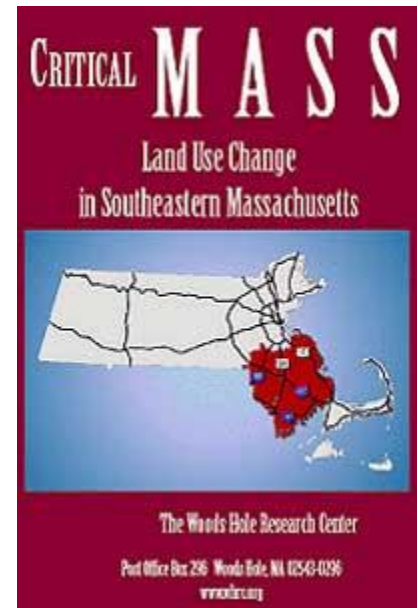
Promoting a more thorough understanding of the value of ecosystems and the implications continued commercial and residential development in Southeastern Massachusetts is the goal of a poster being published by The Woods Hole Research Center. The combination of declining profits for cranberries; a rapidly increasing population, better transportation, and large tracts of undeveloped land have created a significant threat to the remaining open space of Southeastern Massachusetts. The poster will assist communities in thinking critically about what further development may mean for their towns.

Despite development pressures, the region still has one of the largest blocks of undeveloped land in Massachusetts. The open space in this region includes globally significant and largely intact pine barren ecosystems, wetland/bog areas, and scrub oak forests. According to Thomas Stone, a senior research associate at the Center, "There exists now a unique opportunity to preserve much of this open space saving a valuable asset for future generations. The goal of this project is to inform the citizens of Southeastern Massachusetts about patterns of land use change, the detrimental effects of excessive change on the environment, and prospects for a future of land conservation. A secondary objective is to increase the regional identity for residents in this area and to help them become more aware of the fact that the problems are not town specific."

A program and reception marking the launch of the poster will take place on Saturday, March 4, at the New Bedford Whaling Museum. John Holdren, director of The Woods Hole Research Center, will speak. The event begins at 2 PM and is free and open to the public.

The Woods Hole Research Center poster illustrates regional changes in land use over the last thirty years and to provide insight into future development via modeling scenarios. Also included are a graph of population growth and a time line of key eras in the region's history that helped to characterize Southeastern Massachusetts as we know it today. This map will be distributed throughout the region to educate the general public and decision-makers about broad trends and to help create a regional identity. This effort parallels other proposed research in the region to examine the expansion of the area of impervious surfaces and its effects on water quality and, by employing a modeling approach, to predict the area of possible commercial and residential development.

The expansion of high-volume expressways in Southeastern Massachusetts that allow people to live further from their jobs and increase the ease of access to vacation spots and second homes has been a tremendous influence on land use in the last 50 years. The number and quality of limited access roads that were opened in the 1950s in Massachusetts, paralleled in other parts of the country, helped to begin an explosion of vehicular traffic in the region. Major new highways



[Poster Side One](#)

[Poster Side Two](#)



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include: Route 128 and the Massachusetts Turnpike, Route I-495, Route 3, Route 24, Route I-195, and Route 44 (E-W). All major highways in the region have experienced traffic volume increases from 20 to 60 percent over the last decade. The impervious characteristic of these roads has a negative impact on water quality, increases non-point source pollution, and fragments ecosystems. Moreover, they also serve as barriers to species movement, cause road kills, and road avoidance by wildlife. In addition, large residential developments are becoming more abundant. Significant residential growth can lead to a long-term degradation of the quality of life for current residents and places enormous burdens for services on local towns.

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