

# Healthy Natural Environment *Resource Use*

## *Land Use and Open Space*

### *What are the Most Important Goals?*

- *Informed populace*
- *Visionary leaders*
- *Engaged institutions*
- *Accessible services*
- *Balanced demographics*
- *Continuous education*
- *Creative economy*
- *Directed growth*
- *Good health*
- *Integrated infrastructure*
- *Valued ecosystems*

### **What is this Indicator?**

This indicator measures the acres of land developed, the acres of land already protected as permanent open space, and the acres of land remaining (i.e., not already developed or protected as open space) as of the end of 2002. Open space is land that is owned by the town, state or federal government, or nonprofit conservation organizations for habitat, scenic, recreational, or water supply protection purposes, or subject to conservation restrictions or other permanent development constraints. The open-space acres also include wetlands.

### **Why is this Indicator Important?**

How we develop our land affects community character, not just visually, but economically, socially and environmentally. When we grow in a scattered manner, development impacts our water quality, generates traffic and congestion and harms wildlife habitat. This indicator is a direct reflection of the pattern, type and location of growth we have adopted. “Suburban sprawl”—a medium-density, decentralized, haphazard, and fragmentary pattern of development characterized by large-lot residential subdivisions, strip commercial areas along roadways, and orientation toward automobile use—is particularly consumptive of both our natural and municipal capacity. Moreover, it stands in stark contrast to the dense downtowns and village hamlets, with their pedestrian orientation and mix of complementary uses, that defined the first three centuries of growth on Cape Cod. Sprawl destroys much more habitat, consumes more groundwater, results in more vehicle miles traveled, and—when dependent upon septic systems for wastewater disposal—pollutes more waterways than the Cape’s historical pattern of dense village centers and rural countryside. This means that each man, woman and child consumes more of the Cape’s limited resources. This per-capita “ecological footprint,” made large by sprawl, ultimately limits the sheer numbers that can be accommodated within the Cape’s capacity constraints.

In 1998, Governor Cellucci set a statewide goal that aims to protect three acres of land for every acre of land developed in Massachusetts. Due in part to the ties between the Cape’s economic and environmental health, and because development pressures are greater on Cape Cod than elsewhere in the Commonwealth, Barnstable County has set a goal of protecting 50% of the Cape’s remaining developable land (i.e., not already developed or protected as open space). This means that for every acre developed, one acre should be protected. The creation of the Cape Cod Land Bank in 1998 established

**What Can We Do?**

■ **Individuals:**

- Support open-space purchases at Town Meeting.
- Support local land trusts.

■ **Communities:**

- Encourage decision-makers to place land purchases on the town warrant for Town Meeting.
- Support preservation of open space through regulatory requirements, including changes in zoning and wetland bylaws.
- Consider adoption of the Community Preservation Act.
- Support changes in zoning to promote cluster subdivisions and to encourage concentrated development in downtowns served by sewer.

■ **Decision-makers:**

- Support land protection initiatives.
- Identify areas for growth and areas for protection, and propose regulatory changes to steer development away from sensitive resources.
- Make public infrastructure investment that supports concentrated development and redevelopment of existing developed areas.

a dedicated funding source for the purchase of open space. This property tax surcharge has enabled Cape towns to protect open space. Since the inception of Land Bank funds in 1999, Cape Cod communities have purchased approximately 3,500 acres of open space for water supply protection, passive recreation, conservation and community character interests. However, more must be done to reduce the impacts of sprawl, to promote more concentrated development, and to redevelop existing growth while we preserve the most sensitive and important lands.

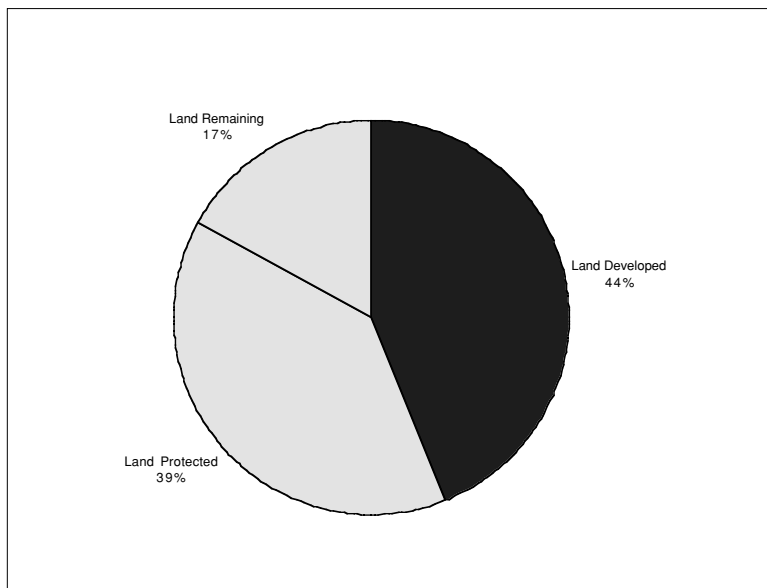
**Analysis of Data**

The method for compiling and calculating the data for this indicator has changed since the 1999 Sustainability Indicators Report. The relative acreages of land developed, land protected, and land remaining, as presented in this report, have been largely derived from 2002 assessors' data, with refinements made from a variety of sources. A strict comparison to the figures in the 1999 indicator is difficult, due to the changes in methodology. However, generalizations about trends showing increases in developed and protected land may be made, and support the common knowledge that development has proceeded at a steady rate on the Cape during the last four years, at the same time that we have made progress in open space protection. It is also important to note that between the time of the 1999 Sustainability Indicators Report and this report, approximately 15,000 acres of the Massachusetts Military Reservation were permanently protected as a water supply and wildlife reserve. These acres on the MMR were previously considered "land remaining" or developable.

Of the 263,800 acres that comprise Cape Cod, approximately 44% is already developed, 39% is protected or undevelopable (including some wetlands and bodies of surface water), and 17% remains undeveloped and unprotected.

**Figure 1.**

**Percentage of Land Developed, Protected, and Remaining, Cape Cod**





*Accuse not nature, she  
hath done her part; Do  
thou but thine!*

—Milton, *Paradise Lost*

*A thing is right when it  
tends to preserve the  
integrity, stability and  
beauty of the biotic  
community. It is wrong  
if it tends otherwise.*

—Aldo Leopold  
*Sand County Almanac, 1949*

*No witchcraft, no  
enemy action had  
silenced the rebirth  
of new life in this  
stricken world. The  
people had done it  
themselves.*

—Rachel Carson

## What Connections Does this Indicator Have?

Protecting land as permanent open space has major implications for the economy, the environment, and the social fabric of Cape Cod. Moreover, how we protect the land—for example, by changing zoning to encourage more compact growth and redevelopment of economically distressed areas—can have direct economic and social benefits while reducing impacts to the environment.

### ■ *Economic*

An increase in land protected as permanent open space will reduce the impact that future development will have on the Cape’s infrastructure, including construction of roads and schools. Similarly, guiding development toward those areas with growth potential and infrastructure can revitalize downtowns and commercial areas, providing jobs and economic growth with minimal land consumption.

The quality of life that open space provides is a critical asset as the Cape strives to compete economically. Studies have shown that land that is in proximity to public open space increases in property value, which translates into higher property tax revenues, which in turn benefits municipalities. The quality of life that comes with proximity to open space is a major factor in the competition for new businesses and jobs. So is the presence of rich, diverse downtowns that provide a panoply of services and a strong sense of community.

As a tourist destination, Cape Cod relies heavily on the attraction of its natural resources, including woodlands, beaches, marshes, and dunes. People also move here year-round and seasonally in order to enjoy the Cape’s natural resources. The increase in homeownership on Cape Cod and the attraction of the Cape as a tourist destination may bring additional revenues, but also degrade the very resources that make the Cape beautiful. If these resources are harmed, the Cape will be less attractive as a destination, and the Cape’s economy will suffer as tourist dollars are lost. Striking a balance between smart, focused growth and open-space protection will be the primary challenge until buildout is reached.

### ■ *Environmental*

Land is one of the Cape’s most precious natural resources. New sprawl development that relies on roads, parking lots, and dispersed houses and businesses strains our groundwater supplies, the cleanliness of our air and our ability to escape from traffic and noise. As traffic generation increases due to tourism and continuing development, traffic congestion and air pollution increasingly harm our environment and quality of life. Protection of land will help preserve the water quality and availability of our sole-source aquifer, as well as protect habitat and wildlife migration corridors. Open space offers a refuge for people, maintains the health of our environment, and provides habitat for a diversity of species. Promotion of more compact development, such as “clustered” subdivisions that concentrate the houses on a portion of the site, can help preserve open space as development proceeds. Designating areas for concentrated growth in areas served by sewer or other innovative wastewater systems can preserve undeveloped lands and reduce nitrogen impacts and habitat destruction.



*The true meaning of life  
is to plant trees, under  
whose shade you do not  
expect to sit.*

—Nelson Henderson

■ **Social**

Many people feel a sense of loss as well as increasing levels of stress as open space disappears and is replaced with houses, roads, congestion and noise. More time spent in cars, detrimental aesthetic impacts, degraded water quality for fishing and swimming, and fewer, more crowded places for recreation and solitude all contribute to a reduction in the quality of life. Sprawl, particularly the prevalence of single-family homes on large lots, tends to isolate individuals from one another and reduce the opportunity for incidental social interaction. Concentrated development and redevelopment can also provide more housing and a greater range of housing types and prices, meaning that affordable housing and open-space preservation can be synergistic rather than mutually exclusive.