

# Cape Cod Sustainability Indicators

# 2003 Report

## *An Uncertain Future*



**The Cape Cod Sustainability Indicators Council**

*Produced in coordination with*

The Cape Cod Center for Sustainability  
([www.sustaincapecod.org](http://www.sustaincapecod.org))

## ***Sustainability . . .***

**. . . “meeting the needs of the present without endangering the ability of future generations to meet their needs.”**

—*The Bruntland Commission, United Nations 1987*

This report, the second Sustainability Indicators Report for Cape Cod, discusses how individual and collective decisions and actions impact the long-term well-being of our region.

It brings together social, economic and environmental indicators to be tracked over time. While no single indicator is able to give the entire picture, tracking representative indicators in many areas provides an overall sense of trends and of our progress toward becoming a sustainable region.

The 2003 Report highlights some challenges for the Cape, as well as some successes, based partially on tracking the indicators included in the 1999 Report. It is our hope that the data and information will provide reinforcement for positive trends and warning signals for trends that are negative. We also hope that the report helps in starting community dialogue about what a “sustainable Cape Cod” means for all who live and visit here, as well as in encouraging planning and action toward sustainability.

*Cover photo acknowledgements:*

*Massachusetts Executive Office of Environmental Affairs (Wellfleet, upper left; Sandwich, lower center)*

*Kathy Sferra/Cape Cod Commission (Provincetown, upper right)*

# An Uncertain Future

*Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has.* —Margaret Mead

*This is a crisis... Once one understands this crisis, no thinking person can stand idly by and do nothing. When you get past denial, you must do whatever you can.*

—Ray Anderson

Cape Codders are becoming concerned that current social, economic, and environmental trends will make living conditions in our communities unsustainable in the long run. The existence of the Cape Cod Center for Sustainability and the Sustainability Indicators Project mirrors this concern. Yet increasing local interest in these issues is also a reason for optimism.

The 2002-2003 Indicators Project brought together diverse local institutions in a joint effort to collect data, assess trends, and characterize current conditions on Cape Cod. It is hoped that this report will encourage public dialogue about what needs to be done, both individually and collectively, for Cape Cod to become sustainable.

After many hours of discussion and debate, the Sustainability Indicators Council has concluded that the current social, economic and environmental trends that have been tracked on Cape Cod are, as a whole, not sustainable, which is troubling. However, the fact that Cape Codders are talking about it is promising—suggesting an uncertain future.

## **How Did We Get Here?**

In order to move toward a sustainable future, we must recognize the various influences that have shaped our region.

The landform of Cape Cod was created by glacial advances and retreats; then, as warming temperatures melted the North American ice sheet, it became inundated by the rising waters of the Atlantic Ocean. The natural forces that separated the Cape from the mainland have defined its sense of place and shaped its communities. Natural capital has always fueled the Cape's economy. Shellfishing, agriculture, hunting, whaling, forestry, fishing, construction, and tourism have been the main sources of sustenance and income over time.

With the growth in the Cape's resident and visitor populations, the depletion of its natural capital has become increasingly evident. The situation here is by no means unique—the expanding scale and reach of human enterprise are exceeding the regenerative capacity of ecological communities worldwide. But as a tightly bounded, increasingly crowded ecosystem, Cape Cod is particularly vulnerable to impacts resulting from economic activities. Environmental impacts related to the depletion of natural capital include contaminated groundwater, degraded air quality, closed shellfishing beds, eutrophied surface waters, diminished open space, collapsed fisheries, and elevated atmospheric concentrations of greenhouse gases, to name a few.

As environmental amenities become scarcer, economic and social pressures on them increase. Socioeconomic impacts include the lack of affordable housing, the prevalence of low-paying jobs, and an unbalanced age-related demographic, among others.

*According to Jewish teachings in the Talmud, God brought Adam to the Garden of Eden and warned: Take heed not to corrupt and destroy My world. For if you corrupt it, there will be no one to set it right after you. —Ecclesiastes Rabba 7.13*

*Magic has often been thought of as the art of making dreams come true; the art of realizing visions. Yet before we can bring birth to the vision, we have to see it. —Starhawk*

Two factors make these challenges particularly difficult. The first is the long-term nature of the impacts. To act sustainably, we have to change our behaviors to ensure that future generations have the opportunity to satisfy their needs. The second is that local actions are only partly responsible for these impacts. For example, the national and global energy economy is contributing to climate change, which threatens to inundate our low-lying areas and otherwise alter community character.

To address these challenges, individuals and communities must adopt a sustainability ethic, manage natural capital in ways that, while not depleting it, will improve social and economic conditions, and encourage such action in other communities throughout the world. Envisioning a sustainable future represents an important starting point.

### **Where Do We Want To Go?**

When the Sustainability Indicators Council steps back from the data to consider the connections among individual indicators, it is apparent that the synergies among indicators are where progress toward sustainability is to be made, and where action should be focused going forward.

Synergies are interactions among two or more agents or forces whose combined impact is greater than the sum of their individual effects. In other words, an improvement (or a decline) in one area contributes to an improvement (or a decline) in connected ones. Considering this, the Council's vision for a sustainable Cape Cod includes:

- A Vibrant, Caring Society; and
- A Healthy, Nurturing Environment; and
- A Diverse, Growing Economy

Because this vision is so broad, the Indicators Council has also identified a set of underlying goals that relate to the diverse social, economic and environmental challenges identified in this report:

- **Accessible Services:** *Cape Cod residents will be able to afford and obtain reliable access to housing, food, water, health care, education, child care, energy, transportation, communications, recreation, and other services.*
- **Balanced Demographics:** *The Cape's resident and visitor populations will be balanced in terms of age and income distribution, and will be racially and culturally diverse.*
- **Continuous Education:** *Cape Cod communities will offer educational opportunities that include preschool, primary, secondary, trade, two-year, four-year, graduate, and continuing education.*
- **Creative Economy:** *The Cape's economy will continue to rely largely on natural resources, but it will diversify and grow by reinvesting in human, social, and natural capital rather than diminishing it.*
- **Directed Growth:** *The Cape's growth will consist of a mix of uses concentrated in higher-density village centers, focusing on infill and redevelopment rather than conversion of open space.*

*Man did not weave this web of life. He is merely a strand of it. Whatever he does to the web, he does to himself.*

—Chief Seattle

*Social theory shows it only takes 15% of a society to bring about fundamental change.*

—2002 Sustainability Associates

*We criticize and separate ourselves from the process. We've got to jump right in there with both feet.*

—Dolores Huerta

- **Good Health:** Cape Cod residents and communities will enjoy a state of physical, mental and social well-being, as well as a reduction in disease and infirmity.
- **Integrated Infrastructure:** Cape Cod officials and agencies will apply a holistic perspective to the planning, design and operation of water supply, wastewater, energy, transportation, communications and other systems.
- **Valued Ecosystems:** The Cape's ecology will be protected and managed in recognition of the value that natural capital contributes to our quality of life, community character, and economic prosperity.

These synergistic goals are perhaps the most important outcome of the Sustainability Indicators Project because they identify discrete yet cross-cutting areas for action.

## How Do We Get From Here To There?

By providing a reasonably comprehensive description of current economic, environmental and social conditions on Cape Cod, the Sustainability Indicators Council hopes to encourage community conversation about sustainability. The goals listed above take the data in the report a step further by defining the characteristics of a sustainable Cape Cod and by providing guidance for identifying leverage points where focused action could move us toward sustainability on several fronts. Consider the following three examples.

First, young people are leaving Cape Cod at a disproportionate rate, taking with them their capacity to invigorate communities with ideas and energy, fill entry- and mid-level jobs, and balance local demographics. Why? The answer lies in the availability of better opportunities off-Cape for young people and families. Multiple factors are at work, including heavy reliance on a seasonal low-wage service economy, limited advanced on-Cape educational opportunities, and a shortage of affordably priced workforce housing. Changing one side of the equation, such as creating and attracting businesses that provide year-round, well-paying jobs, would increase the likelihood that young families could afford to live here. Likewise, the availability of more affordable workforce housing would enable them to stay here. So too would a four-year college institution and other educational opportunities that would prepare young people for substantive local employment. Under such scenarios, Cape Cod would become stronger, both economically and socially.

Second, the Cape's current energy supply, like that in the rest of the nation and most of the developed world, relies on fossil fuel for its energy. The health of Cape Cod's natural and human communities is adversely impacted by combustion by-products, while greenhouse gas emissions present rising concerns. The global nature of climate change means that worldwide conditions will have local effects. What can Cape Codders do? By tapping Cape Cod's abundant renewable resources and using those resources that we consume more efficiently, local communities could leverage natural capital—wind, oceanic and solar energy flows—to reduce environmental impacts and improve ecological and human health, while stimulating economic diversification along sustainable paths. This would help mitigate the potential adverse impacts of climate change on Cape Cod's prospects for a sustainable future, while setting an example for other communities to follow.

*Sustainability may seem unrealistic, but in 1750, so did democracy. We believe that moving in the direction of sustainability—creating a world where nature thrives, economies prosper, societies work, and everyone has the chance to live a long and fulfilling life—is the great challenge of the 21st century. It's going to take a tremendous amount of innovation and development to make that transformation happen. We believe the transformation is possible, because it's already under way.*

—Alan AtKisson

Third, people are attracted to Cape Cod for its natural beauty and cultural resources. Many visitors become enthusiastic homebuyers, worsening sprawl development, consuming undeveloped open space, and changing the Cape's historic rural character. Residents, second-homeowners and visitors alike impose burdens on water supplies, introduce water pollutants through septic and other treatment systems, consume natural resources, produce solid wastes, and generate traffic. Not only do these impacts reduce our quality of life, they reduce the Cape's appeal as a tourist destination and have negative effects on the economy. In this case, the answer may be discouraging consumptive land-use patterns, encouraging higher-density village-style development, and creating integrated water supply, wastewater, energy, transportation, and communication systems. Directed growth would reduce the pressure on open space and better meet the needs of both year-round residents and the peak seasonal influx of visitors and workers.

To help Cape Cod communities manage the transition from current conditions to a sustainable future, the Sustainability Indicators Council has identified three near-term touchstones necessary to begin incorporating the idea of sustainability in individual and community decision-making processes and institutionalizing it in local and regional planning processes:

- **An Informed Populace:** *Cape Cod residents and visitors will recognize sustainability's relevance to their lives—and the lives of their children and grandchildren—and will make decisions, vote on issues, and participate in civic activities that contribute to a sustainable future.*
- **Visionary Leaders:** *The Cape's elected and appointed officials and other community leaders will balance short-term and long-term perspectives to manage environmental, social and economic systems in sustainable ways.*
- **Engaged Institutions:** *Cape Cod's citizens groups, regional and local agencies, businesses, educational and religious institutions, foundations, advocacy groups, and research institutes will focus on sustainability challenges within their purview and collaborate with other organizations to achieve mutual goals.*

The Sustainability Indicators Council and the Cape Cod Center for Sustainability are planning activities to educate the public, encourage visionary leadership, and engage local institutions.

Public forums will provide a means to explore the synergistic goals and examine how Cape Cod's natural, human and social capital, along with physical and financial assets, can be used to move local communities in sustainable directions.

To turn the Sustainability Indicators Project into an ongoing process, organizations will be encouraged to "adopt an indicator" and continue collecting, analyzing and reporting data to spur collaborative action and assess community progress.

Although findings in the 2003 Indicators Report suggest an uncertain future, the fundamental message from the Sustainability Indicators Council is one of hope: A sustainable Cape Cod is achievable if individuals and communities are willing to envision it and are committed to making it happen.



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