MARTHA'S VINEYARD COMMISSION

# Martha's Vineyard Indicators Project
# Measures of Sustainability

**July 2005**

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**Sustainability**: relating to, or being a method of harvesting or using a resource so that the resource is not depleted or permanently damaged.

**Indicator**: 1. a device for showing the operating condition of some system

3. a signal for attracting attention
3. a number or ratio (a value on a scale of measurement) derived from a series of observed facts; can reveal relative changes as a function of time

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# Martha's Vineyard Indicators Project
# Measures of Sustainability

July 2005

Prepared under the auspices of the
Martha's Vineyard Sustainability Indicators Steering Committee[1].

Final report compiled by William Veno, AICP,
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Including work prepared by AtKisson, Inc

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[1] *Note that, as explained in this document, the Steering Committee had disbanded and the project officially expired before this report was completed. Although the process and this report largely reflect the work of the Steering Committee, it was not in a position to review or approve this document.*

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# 1. Introduction

If cars didn't have speedometers, people would find it much harder to know how fast they were going, and how to adjust their speed to be under the limit. It would be harder to follow through with a weight-loss program without a scale or tape measure. A useful first step in any program of behavior adjustment is having reliable, quantifiable information on where we are, as we progress towards our goal.

This is the basis for Sustainability Indicators, an international movement to help communities move towards greater sustainability by providing accurate information on how sustainable they are today, coupled with a program to update this information on a regular basis.

At the end of 2000, a group of Islanders decided to do just this for the Vineyard. The aim was to create a broad set of measures that would provide a gauge of the natural, economic, social and individual well-being of Martha's Vineyard and its inhabitants. These indicators would illustrate the interconnection of issues and stimulate the community to think more broadly in its decision-making.

The next year, a consultant was hired – thanks to grants from the Commonwealth and the Edey Foundation – and a multi-layered community input structure began, involving about a hundred people on various steering, advisory, and technical committees. Over the course of three sessions spanning seven months, the advisory group identified community assets and concerns, potential indicators and how to measure them, linkages among the indicators, and inventoried actions already underway affecting each indicator. Unfortunately, efforts faltered in the spring of 2002.

The term "sustainability" has become a catch-all that, like "truth" and "justice", means very different things to different people. Its widespread use can be traced back to the 1987 World Commission on Environment and Development (Brundtland Commission), which emphasized the intimate interrelatedness between the natural environment and human society including the economy. The Brundtland Commission called for the development of new ways to measure and assess progress toward sustainable development.

Sustainable development is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs". It requires taking a holistic approach, looking at the social, ecological, and economic consequences of human activity – both positive and negative – in a way that reflects the costs and benefits for human and ecological systems, in monetary and non-monetary terms. It considers equity and disparity within the current population, and between present and future generations. It considers the ecological conditions on which life depends, considers economic development and other, non-market activities that contribute to human/social well-being. It is intimately related to the carrying capacity of the land.

In late 2004, members of the staff of the Martha's Vineyard Commission and members of the project steering committee met several times to discuss how to revive the effort. We decided to finish off those indicators that could be finalized relatively expeditiously, and to publish them in conjunction with a forum on sustainability that the MVC was planning for this summer. This somewhat abridged version of the Martha's Vineyard Indicators Project was released at the July 20, 2005 MVC forum on sustainability entitled "Paradise Lost? – Are We Loving the Vineyard to Death?"

The Martha's Vineyard Indicators are organized into four broad categories: Nature, Economy, Society and Well Being. Of the original 37 potential indicators, 15 are included in this report. For each indicator, the committee chose a specific measure to monitor. For example, to monitor Political Engagement they chose the percent of registered voters who attended Town Meeting and the percent that voted in the annual town election. Sometimes, there is no obvious way to measure an indicator, so a "proxy" is used to try to get at the information indirectly; for example, to measure Sense of Community, the proxy used is the percent of people living in the same place for the past five years.

For several of the indicators excluded from the current report, there is simply no reliable information available (which in itself is a type of indicator). For example, the most recent information about the cost of living on the Vineyard was a 1998 statewide study – using 1990 data – performed by the Women's Educational and Industrial Union, which calculated a "Self-Sufficiency Standard", how much money working adults must earn to meet the basic needs of their families for housing, child care, food, transportation, health care and taxes. At that time, the percent of households whose income did not meet the standard was 27%, about the same as the overall average for the Commonwealth. Unfortunately, the union's subsequent report using 2000 data only updated statewide figures. Recently, the Martha's Vineyard Commission has been discussing with the Martha's Vineyard Community Services starting to compile an annual Vineyard Cost of Living Index.

Each indicator includes a general summary statement, a graph of how the measure has changed over time, and a narrative that explains what was measured, what it means, its interrelatedness with other indicators, and its relevance to the Vineyard's future.

Much of the information compiled for the Sustainability Indicators project will be used in the Comprehensive Island Planning process that will begin this fall. And the planning process could help complete some of the indicators that were not done for this round. However, for the indicators project to be successful, we not only have to complete the portrait of where we are today, we also have to set up a system to update the indicators on a regular basis. More importantly, how can we use the indicators to improve decision-making and help us grapple with the fundamental question: What can we do to make the Vineyard a more sustainable Island community?

*Summary by Mark London and Bill Veno*

# 2. Methodology

## 2.1 Objectives

The intentions of the Martha's Vineyard Indicators Project (MVIP) were to:

- Develop a set of measures by which the community can readily assess whether elements important to the overall quality of life on the Vineyard are improving or worsening – be they related to natural, economic, social, or personal well-being.
- Get people with different perspectives and orientations to think through how these elements may, in fact, influence one another.

The project entailed gathering an array of information and developing broad consensus on a set of quantitative measures that illuminate the interconnections among water quality, the broader natural environment, the economy, development, and the social fabric of the Island community.

Ongoing updating of the indicators would enable the community to stay aware of changing trends. Also, it will allow decision makers to consider the potential broader impacts of their actions, thereby avoiding inadvertently working at odds with other groups and to combine efforts to devise projects or policies that advance more than a single community goal, thus optimizing the community's efforts and resources.

## 2.2 Chronology

The initial idea of developing sustainability indicators came from two individuals on the Island – Patricia "Paddy" Moore and Leah Smith. They drafted a grant application on behalf of the Martha's Vineyard Commission to conduct the project.

While the MVC sponsored the indicators project, the structure of the process was intended to be largely independent of the Commission, with a variety of citizen committees established to oversee or participate in the process. The Commission's Planning Economic Development Committee decided to engage a consultant to assist a citizen-based group to develop the indicators.

The project was funded from the following sources:

- a Watershed Initiative Grant from the Executive Office of Environmental Affairs
- a grant from the Edey Foundation;
- a grant from the Wampanoag Tribe of Gay Head (Aquinnah);
- in-kind services from the MVC;
- considerable volunteer time from Islanders and several off-Islanders.

The various committees met actively between September 2001 and April 2002 to identify issues (community assets and concerns), to identify indicator measures, and to discuss development of implementation strategies to advance ideas evolving from the project. The steering committee

selected a list of 37 proposed indicators. However, it did not succeed in identifying a process to use the indicators to promote better, broad-based decision-making among the community.

Although funds ran out in spring 2002, MVC staff and the consultant continued to work on a sporadic basis collecting data and drafting narratives for the three-dozen proposed indicators.

In three meetings in November 2004, Steering Committee members and MVC staff reviewed and evaluated the entire set of indicators, as it existed, with the intent of releasing the indicators for community comment and use. They classified 37 candidate indicators into three categories: 1) Relevant Indicators with Data, 2) Relevant Indicators Needing Data or Other Work, and 3) Less Compelling Indicators.

MVC staff proceeded to update the first category of indicators and combined the presentation of them and the entire MVIP project as part of the "Looking at the Vineyard" summer 2005 forum series on July 20, 2005.

## 2.3 Committees and Other Entities

The following entities made the project work or provided input.

- Steering Committee (SC). A core group of citizens, selected by the Commission for their diversity of perspectives and professions, oversaw and managed the project. The group was empowered to make decisions at every stage of the process. The initial number of eleven committee members met from July 2001 through April 2002. In January 2002, the committee invited another thirteen individuals to further broaden the committee's experience and knowledge base.
- Martha's Vineyard Commission Planning Staff. The Martha's Vineyard Commission hosted the project, providing administrative support and lead staff. MVC planning staff took on principal responsibility for primary and secondary data collection, interpretation and analysis relative to local conditions, and administrative coordination.
- AtKisson, Inc. This consultant on sustainability and indicators had conducted many similar projects nationwide and internationally, including providing assistance to sustainability projects on Cape Cod and Nantucket. The consultant provided direct assistance in the form of strategic advice, meeting planning and facilitation, data interpretation and text editing, and technical support. The consultant continued to assist MVC staff beyond the formal project timeframe and into 2004 to complete the indicators.
- Community Advisory Group (CAG). Drawn from all walks of life, fifty-eight people selected by the Steering Committee agreed to act as a large panel of community advisors. High school students were also specifically recruited to serve on this group. The CAG was convened to develop a list of preferred or suggested indicators reflecting both citizen input and their own knowledge on what is necessary to promote the long-term sustainability of the Island. It met at three critical times during the process to infuse the

broadest array of ideas and feedback as the project evolved. CAG members were encouraged to invite additional people they thought should be part of the discussion.

- Technical Advisors Group (TAG). Some two dozen experts from various fields agreed to provide their informed opinions on the technical aspects of the indicators, focusing on the appropriateness of characteristics to be measured and data availability. This group was comprised of academics, consultants, and analysts from business, government, and public agencies – both on and off-island. As development of the indicators became protracted, involvement of the TAG members, along with the other groups, was largely curtailed.
- Focus Group. Once a tentative list of specific indicators had been identified, a group of a dozen citizens with no prior knowledge of the indicators project was convened in November 2001 to get their reaction to the selection. The group provided another range of perspectives for consideration by the Steering Committee.

## 2.4 List of Project Participants

### Steering Committee Members

John Abrams
Marie Allen
Renee Balter
John Early
Ned Robinson-Lynch
Chris Murphy
Priscilla Sylvia
Woody Vanderhoop
Kate Warner
Paul Watts

### (Added February 2002)

James Athearn
Charles Bradley, Jr.
Tad Crawford
Mary Etherington
Ray LaPorte
James Lengyel
Norman Rankow
B.T. Robinson
Cassie Roessel
Andrea Rogers
Linda Sibley
Skye Sonneborn
Richard Toole

### Citizen Advisory Group

Lorna Andrade
Janet Bank
Tom Bennett
Margueritte Bergstrom
Alden Besse
Nancy Billings
Katie Brewer
Christina Brown
Sadie Burton-Goss
Emmett Carroll Jr.
Joe Carter
Doris Clark
Leo Convery
Leslie Elish
Linda Hearn
Kristina Hook
Bill Jones
Philippe Jordi
Chris Joyce
Joan Kocian
Linsey Lee
Cassidy Look
Ann Margetson
Katie Mayhew
Lois Mayhew
Gene Mazzaferro
Deborah Medders
Paddy Moore
Henry Nieder
Brendan O'Neil
Ned Orleans
Megan Otten-Sargent
Gerard Peterson
Sherry Purdy
Herb Putnam
Diann Ray
Camille Rose
Kerry Scott
Bill Searle
Casey Sharpe
Charles Silberstein
Elio Silva
Bill Stafursky
William Stahl
Tom Wallace
Jennifer Watts
Elaine Weintraub
Roger Wey
Rez Williams
Alan Wilson
Arthur Wortzel

## Technical Advisory Group

Lois Adams, Chief, Toxic, Radiation and Urban Programs, EPA / New England Region (Boston)
Pedro Arce, Economic Development Director, Metropolitan Area Planning Council (Boston)
Tom Chase, Director, Islands Program, The Nature Conservancy
Chief Paul Condlin, Edgartown Police Department
Douglas Cooper, Principal, Cooper Environmental Services
Wesley Ewell, Special Projects Manager, Nantucket and Martha's Vineyard Steamship Authority
Murray Frank, MV Health Council
John Glyphis, Second Nature (Boston)
Andrew Grant, engineer and former MVC transportation planner
Jim Hogan, Realtor, Tea Lane Associates
Alice Ingerson, Associate Director, Institute for Cultural Landscape Studies, The Arnold Arboretum (Jamaica Plain)
Rick Karney, Director, MV Shellfish Group, Inc.
Elisabeth Miley, Municipal Development Specialist, Dept. of Housing and Community Development (Boston)
Patricia Moore, President, Moore II Resolutions
Deacon Perrotta, Supervisor, Oak Bluffs Water District
Leah Smith, Consultant on education, environment and economics
Woody Tasch, Chair, Investors Circle / Nantucket Sustainable Development Corporation
Peggy Vance, Director, Featherstone Meetinghouse for the Arts
John Varkonda, Supervisor, Manuel F. Correllus State Forest
Friend Weiler, Senior VP of Commercial Lending, Compass Bank (New Bedford)
William Wilcox, Water Resources Planner, MVC

## Focus Group

Cynthia Aguilar
Wendy Andrews
Charles Cameron
David Douglas
Jamie Harris
Tony Higgins
Bruce Slater
Seth Wakeman
Adam Wilson
Maurice Young

## AtKisson, Inc. (project consultant)

Alan AtKisson, Project Director
Cynthia Staples, Project Coordinator
Kit Perkins, Technical Coordinator
Lee Hatcher, Technical Support
Francesca Long, Associate

## Martha's Vineyard Commission Staff

William Veno, Project Manager
Christine Flynn,
Economic and Affordable Housing Planner
William Wilcox, Water Quality Specialist
Mark London, Executive Director
Jo-Ann Taylor, Coastal Planner
Chris Seidel, GIS Specialist
Jennifer Rand, Meeting Facilitator

## Martha's Vineyard Commissioners at Inception of Project (2000)

John Best
Christina Brown
Marsha Cini
Michael Colaneri
Michael Donoroma
John Early
Ann Gallagher
Jane Green
Benjamin Hall, Jr.
Tristan Israel
Leonard Jason, Jr.
Michele Lazerow
Megan Ottens-Sargent
Linda Sibley
Richard Toole
James Vercruysse
Robert Zeltzer

# 3. Recommended Candidate Indicators

As the Community Advisory Group, the Technical Advisory Group, the Focus Group and the project Steering Committee considered various possible measures of sustainability for Martha's Vineyard, members used the following criteria from *The Community Indicators Handbook* on what makes for a good indicator.

Indicator Selection Criteria

| | |
|---|---|
| Relevant: | Does the community need to know this? |
| Valid: | Are you measuring what you think you are? |
| Credible: | Is the information source suspect? |
| Measurable | |
| Consistent and Reliable: | Is quality data likely to be produced over a number of years? |
| Comparable: | …to other communities? |
| Understandable | |
| Leading: | Forewarn of trouble (e.g. canary in a coal mine)? |
| Compelling | |
| Engaging for Media | |
| Accessibility and Affordability | |

Narrowing Down the List of Indicators

Does the indicator…Relate to the whole community?
Connect with Vision and Values?
Make linkages and relationships?
Focus on Resources and Needs? (not just detriments; what is working?)
Be Creative and Action-oriented?

In January 2005, Steering Committee members and MVC staff organized the 37 candidate indicators into three categories of readiness and utility (the rationale for the identification and the later categorization of the indicators is found in A6 and A7 of the Appendices document).

## 3.1 Relevant Sustainability Indicators

These indicators contain sufficient information to examine trends or relationships to other indicators and should be distributed to both inform the community and to solicit feedback to the indicator process.

- Land Use
- Water Quality of the Great Ponds
- Solid Waste
- Energy Use
- Affordable Housing
- Jobs
- Transit Ridership
- Civic Participation
- 1st-Time Homeowners
- Access to Doctors
- Emergency Room Visits
- Seasonal Residents
- Cultural Continuity
- Sense of Community
- Registered Cars

### 3.2 Relevant Sustainability Indicators Needing Data or Definition

These indicators are recommended to be pursued, but, thus far, data has been inadequate, incomplete or not available. For some indicators, no consensus yet exists on what to measure.

- Habitat
- Groundwater Quality
- Air Quality
- Cost of Living
- Immigrant Workers
- Travel to Mainland
- Infrastructure
- Beach Access
- Library Use
- Health Insurance
- Mental Health
- Domestic Abuse
- Public Safety
- Youth Opportunities
- SSA Excursion Use

### 3.3 Less Compelling Indicators

Candidate indicators placed in this category were felt to be less compelling, less specific, or less likely to be quantified than the other indicators.

- Groundwater Levels
- Water Consumption
- Sea Level Change
- Guest Houses
- Commuting
- Seasonality of Businesses
- Education
- Tranquility

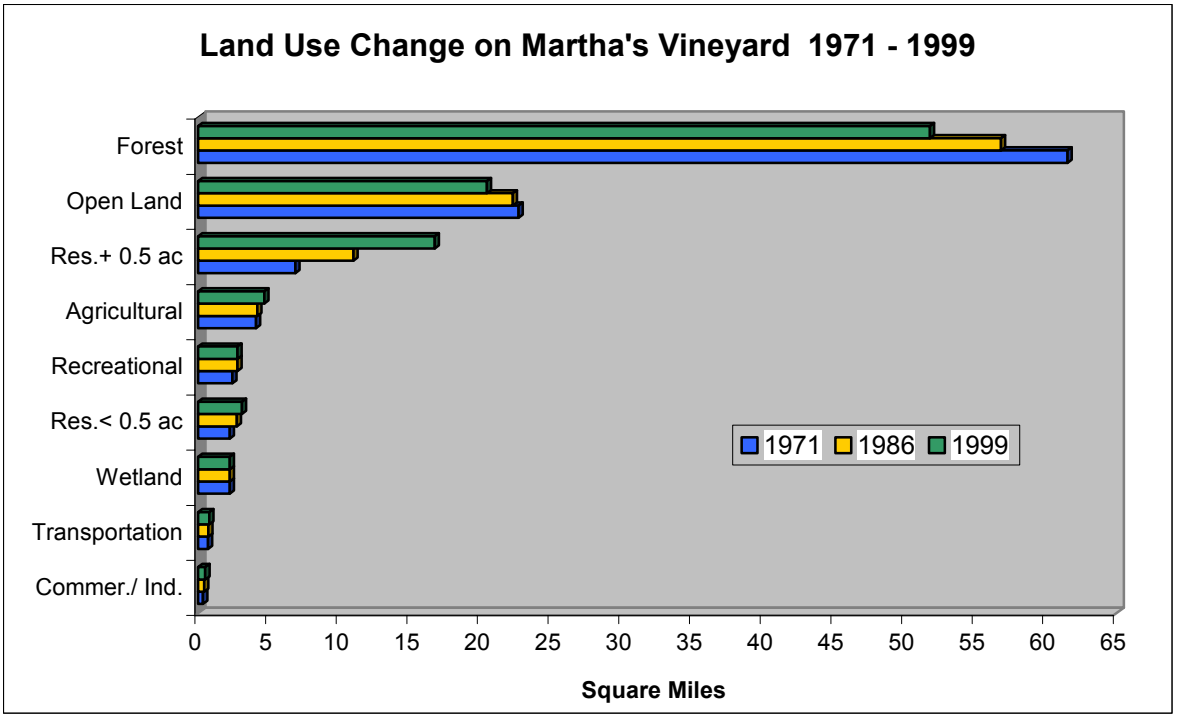
## 4. Proposed Indicator Set

The remainder of this document outlines the 15 indicators that were chosen by the Steering Committee as the most relevant Sustainability Indicators for Martha's Vineyard for which data was available. They are organized in four broad categories:

N - Nature E - Economy S - Society W - Well-Being

## ***INDICATOR N1*** **Land Use Change**

***STATUS:*** Nearly 1/10th of the Vineyard changed from Forested to Low-density Residential in the last three decades of the 20th century.




**TREND**

Martha's Vineyard woodland is steadily being replaced with the buildings, driveways and yards of incremental, low-density residential development (i.e. "sprawl").

**WHAT WE MEASURE**

Whether we choose to use the land on Martha's Vineyard for agriculture, woodland, residences, commerce, or transportation reveals much about our values and our economy. It often seems we see land clearing and new building everywhere we look. As the Island's undeveloped areas diminish, we increasingly wonder about how much land remains to be developed or protected as open space, and how we should make those choices. The only comprehensive land use data that exists over an extended period of time comes from the University of Massachusetts prepared from aerial photography (MacConnell Land Use). This data shows how the use of the land has changed over the past three decades. A 2001 "build-out study" by the Commonwealth using the latest land use data also looked at lands protected as open space or otherwise not buildable to calculate how much of the Island's undeveloped land could possibly be developed. The build-out study determined the Vineyard to be roughly divided equally among three categories: developed, protected and developable.

## WHAT IT MEANS

The most noticeable changes in our land-use patterns are the 16 percent decline in our forest cover and the nearly three-fold increase in the amount of residential land. In 1999, just over half of the island was forested. However, the loss of woodlands alone does not necessarily mean a decline in environmental quality – nutrient cycling, retention of water and biological diversity can sometimes be greater in non-forested ecosystems. More significant is the fragmentation to any habitats from low-density residential growth. The land use data also suggests we have accommodated unprecedented growth over the past three decades while successfully conserving a key part of our island ecosystem; wetlands have remained stable at two percent of the Island's area throughout the period.

The fact that a third of the island remains to be either developed or conserved for open space is cause for both hope and concern. The opportunity to substantially add to the Island's protected open space is inversely proportional to whether additional year-round and seasonal residential development continues at consumptive densities that increases land fragmentation.

## WHAT IT CONNECTS TO

This is a particularly well-connected indicator. For the past few decades, the conversion of land for new residences has been one of the primary economic engines of the Vineyard, expanding the tax base and providing real estate gains, a range of employment opportunities, and, not inconsequently, revenues for the Land Bank's protection of open space. At the same time, the change in land use has effected the Island's natural habitats, our access to open space – even if only in the form of vistas from roadways – and what we commonly call the "character" of the Vineyard. Land use patterns also affect our investment in community infrastructure, including an increase in the demand and cost of services, the shape and nature of transportation and service delivery systems, as well as the quality of life for every one of us.

## WHAT WE STILL NEED TO KNOW

The extended time-periods between the MacConnell land use data is not frequent enough for us to keep abreast of changes. Our most predominant form of development, low-density residential, is often not clearly differentiated from the forest, open land and, even, agricultural land use categories. Even the estimates of how much land remains available for development contain assumptions that need to be more closely examined to improve their relevancy.

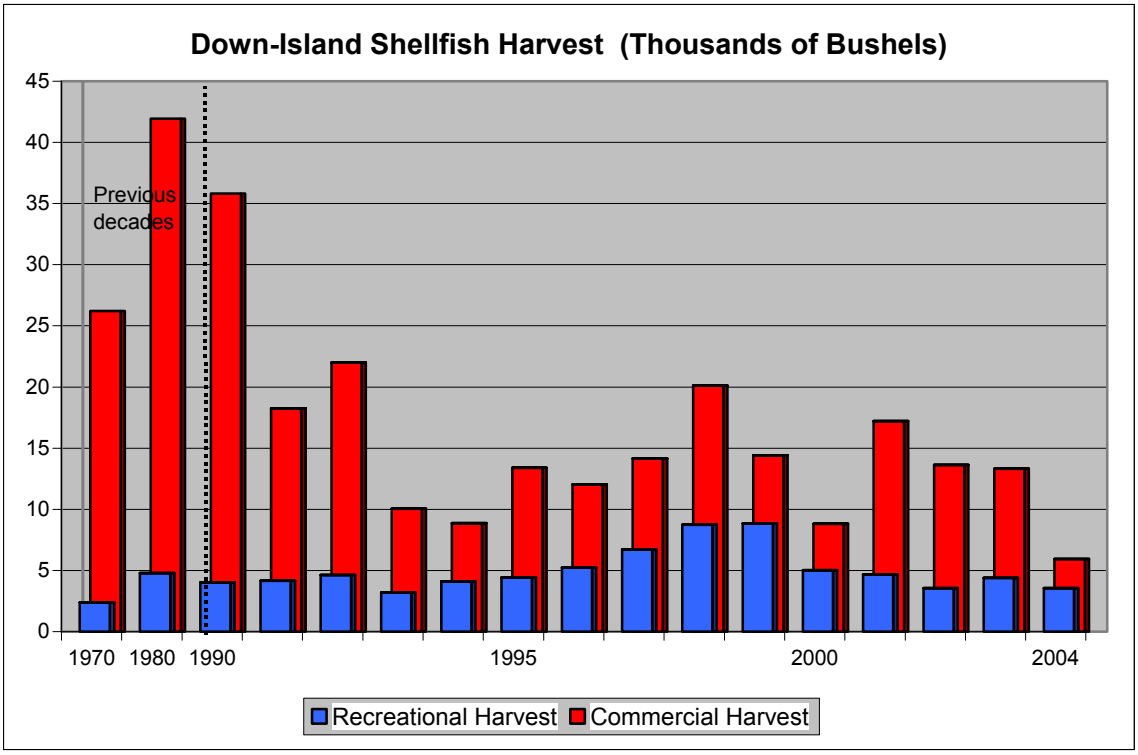
## ACTION INVENTORY

With all the development pressures on the Vineyard, it is not surprising that there are so many groups involved with measures intended to affect land use. It is vital that good information is available to avoid duplication of efforts, or worse, working at cross-purposes. The towns' development of master plans and open space plans weigh the resource and community demands and are indispensable for informing local decision-making. In the new millennium, several towns have modified their development regulations to allow use of substandard lots or increased density to accommodate affordable housing. In assisting the towns with preparing Community Development Plans in 2004, the MVC created maps of development suitability and of open space suitability. In 2005, the MVC is promulgating open space guidelines for DRI applicants. The MV Conservation Partnership, comprised of the Island's five principal conservation organizations, already works to better coordinate and complement each other's conservation efforts. Affordable housing groups are partnering with conservation groups to optimize the location of needed housing and conservation of open space. These two groups are employing the historic Vineyard practice of moving buildings to different locations. Such "undevelopment" – the returning of developed land back to a native state – holds the promise of allowing the community to reconsider development decisions of the past.

*Last updated: July 1, 2005*

## INDICATOR N3 Water Quality of the Great Ponds

***STATUS:*** Shellfish catch has reached new lows.




**TREND**

Over past decade, harvest can fluctuate by 100 percent and more. Increasing erratic swings in commercial shellfish harvest…but two of the last five years have set record lows.

**WHAT WE MEASURE**

Evaluating the water quality of the Vineyard's great ponds is not a straightforward undertaking. While a great many water quality measurements have been and continue to be conducted in the great ponds across the Vineyard, there are a range of characteristics measured which vary greatly over time and location within a single pond, let alone from pond to pond. Although many similar variables also apply to the shellfish catch in these ponds, shellfish are a good indicator species – the "canaries in the coal mine" of our great ponds. We look at how many have been caught with commercial and recreational permits as an indication of the quality of our principal surface waters – the great ponds. There are two reasons for using shellfish harvest as an indicator: shellfish require clean water to thrive and they help purify the water, potentially offsetting nutrient loading into the ponds. If the shellfish are in low numbers, the ponds are likely to be stressed and less ecologically productive.

**WHAT IT MEANS**

Like all animal populations in nature, the volume of our shellfish catch oscillates over time, sometimes wildly. We don't have complete data from each of the towns for every year, so we focus on the three down-Island towns that usually accounts for three-quarters of the Island's harvest and for which we have the most complete information. The data show we are harvesting the fewest shellfish in the last 30 years. This data coincides with the extraordinary growth in residential development over these three decades, particularly around the great ponds. But averaged over the years, the decline in productivity is no more severe than that experienced in the mid 1990s.

## WHAT IT CONNECTS TO

The aquatic ecosystems in the surface waters of Martha's Vineyard are closely linked to the rest of the Island. Runoff from different land uses and roads can contribute nutrients, pesticides, oils and metals into our streams and ponds. Good water quality is vital to supporting the shellfish and finfish that are important economic resources to commercial and recreational fishermen, to island residents and tourists for a cheap meal, and to tourists as they can witness the harvesting of the animals they may soon be eating at some restaurant and appreciate the quality of environment necessary for that to be possible.

## WHAT WE STILL NEED TO KNOW

While the shellfish harvest is well connected to other important characteristics of the Island, there are limitations to its use as a measure of the great ponds' water quality. In addition to natural fluctuations in animal species, a high catch may actually over-harvest the shellfish, which can reduce future populations, thereby reducing the capacity of the shellfish to fight pollutants and potentially diminish water quality. The market price for shellfish also affects the incentive for commercial harvesting. The aggregation here not only of all species of shellfish, but of all the down-Island ponds, may hide significant variations in one species or in a particular pond. Complete data from each pond would allow a better assessment of the shellfish harvest.

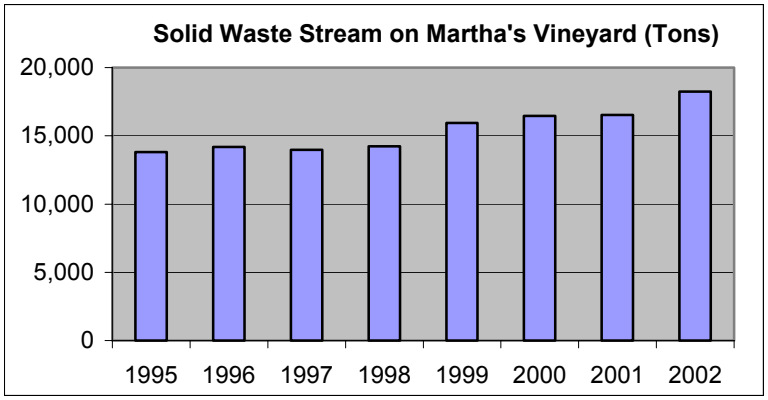
More broadly, we have yet to fully analyze the interactions of the chemical and physical measures of water quality with the shellfish harvest, climate variations and tidal flushing in order to better understand what is the customary variability in water quality.

## ACTION INVENTORY

If we wish to continue to track shellfish harvest as an indicator of great pond water quality, more detailed and timely aggregation of data from town shellfish constables should be conducted. The MV Shellfish Group might be the principal agent to coordinate this. The extensive water quality data collected over the years by the Martha's Vineyard Commission and other bodies interested in the health of the great ponds could be synthesized into a standardized monitoring program for each pond. Several towns have committed to enrolling at least four great ponds in the Massachusetts Estuaries Study. This study promises to shed light on the mechanics of the many traits contributing to water quality in the individual great ponds. The Martha's Vineyard Commission has assisted a couple of the towns with sampling water runoff into storm drains along roadways to determine their affect on water quality and examining mitigation measures. The MV Shellfish Group, the MV Water Alliance, Edgartown Great Pond Association, Tisbury Waterways, Inc. and other groups also educate homeowners of how their actions may be affecting the ponds – positively or negatively.

## INDICATOR N8 Solid Waste Stream

**STATUS:** The volume of Trash continues to increase.




**TREND**
Increasing

**WHAT WE MEASURE**

Solid waste is our garbage. It includes household trash, commercial refuse, yard waste, construction debris and recyclables. The Island's figures are a combination of three sources: the Martha's Vineyard Refuse District (MVRD) – which is a partnership between Aquinnah, Chilmark, Edgartown, and West Tisbury – and the towns of Oak Bluffs and Tisbury. Figures from Oak Bluffs and Tisbury do not include commercial waste, which is handled by a private contractor. We look at waste collection rates for both off-season and peak season to determine the magnitude of difference that might be due to the annual influx of seasonal visitors.

**WHAT IT MEANS**

This graph demonstrates the total amount of trash that is brought to the municipal refuse facilities on Martha's Vineyard. From 1995 to 2002 the total tonnage of solid waste has increased steadily. Between 1998 and 1999 the total tonnage jumped more than 10%. Reasons for the sharp increase could be attributed to several factors such as improvements in tracking methods or an overall increase in consumption and recycling; however, further analyses is needed to determine a direct cause.

As the year-round population continues to increase, the six towns of Martha's Vineyard should examine how to manage solid waste more efficiently. During the 1990s, five of the six town landfills closed permanently. Chilmark had the last operating landfill but closed it in 2004. It now only accepts construction and debris materials. Thus, the majority of solid waste is shipped off-island to treatment facilities. The transporting of waste represented just over 11 percent of all SSA freight trips in 1997 but increased to one out of every seven freight trips, or 14 percent, in the year 2000. It is also important for the towns to look at the variation in tonnage figures over the course of the year particularly February and August.

While there is no regional composting facility on Martha's Vineyard, the towns of Tisbury and Oak Bluffs accommodate the composting of yard waste. The MVRD facility is designed for a composting operation that is to begin in the near future. Since the 1990s, the ability to recycle certain materials has improved significantly.

**WHAT IT CONNECTS TO**

The solid waste stream is connected to ground water quality and the overall state of the Vineyard's natural environment. Steamship Authority freight space is required for each truckload of waste that is shipped off-

island. Examining the amount of materials that are being recycled and reused is a telling indicator of the consciousness of individual residents and sense of community. Other connections are infrastructure and costs to the towns.

## WHAT WE STILL NEED TO KNOW

The Tisbury and Oak Bluffs Districts and the Martha's Vineyard Refuse District operate differently and therefore data is not maintained in a consistent, comparable manner to each other, which would aid in an island-wide analysis. Differences in the amounts of solid waste generated by residential and commercial land uses need to be determined. We do not have figures for the magnitude of commercial waste within the Towns of Oak Bluffs and Tisbury. Other information regarding the disposal of hazardous waste materials and the disposal of septage from septic tanks should also be examined.

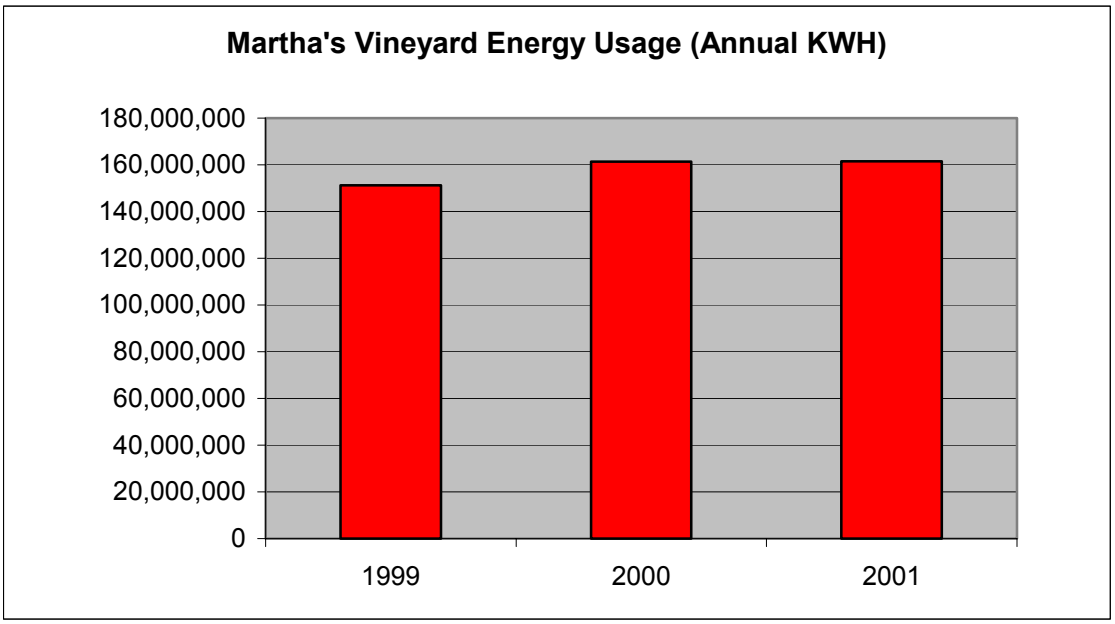
## ACTION INVENTORY

Encourage Oak Bluffs and Tisbury and the Martha's Vineyard Refuse District to find common ground by consolidating efforts to achieve efficiencies in refuse and recycling, management, and ultimate disposal.

*Last updated: July 20, 2005*

## INDICATOR N9 Energy Consumption

***STATUS:*** Slight increase since 1999.




**TREND**
Rising slightly from 1999-2001

**WHAT WE MEASURE**
How much energy do we consume? To measure our total energy consumption, we would need to know more than we present here: our annual use of electricity in kilowatt hours. For the sake of simplicity, we use electricity consumption as a bellwether for our overall energy appetite.

**WHAT IT MEANS**
We have only three years of available data, but the trend over those years is up, by just under 7 percent. Since this is greater than our population growth over the same period (about 5.6%), our use of electricity is increasing slightly in both absolute and per-capita terms. But industry experts tell us that electricity demand is more directly related to structures – with new buildings or rehab of existing buildings or occupation of vacant buildings. Since more than half of the houses on the Vineyard are seasonal dwellings, it makes sense that electricity use would rise faster than the year round population growth rate.

**WHAT IT CONNECTS TO**
Our electricity comes primarily from a mixture of fossil fuel and nuclear sources. Our increasing use of this energy connects us to two very significant global problems: global climate change, and the management of nuclear waste. The oil-fired Canal plant in Sandwich that produces much of our electricity also contributes to air quality problems. Although there is a high level of awareness across the Island of the negative consequences of excessive or misdirected night lighting, increased background lighting can

degrade the visibility of our night sky, affecting the rural character we cherish. The increasing sizes of homes being built require more energy to heat, cool and illuminate.

**WHAT WE STILL NEED TO KNOW**

A growing number of people on Martha's Vineyard have installed solar panels or other forms of alternative energy, but we do not know how many have done this, or what percent of our total energy use is coming from clean and renewable sources. We also do not know about our consumption of other forms of energy such as gasoline, fuel oil, propane, aircraft fuel or wood, which may have no correlation with electricity consumption.

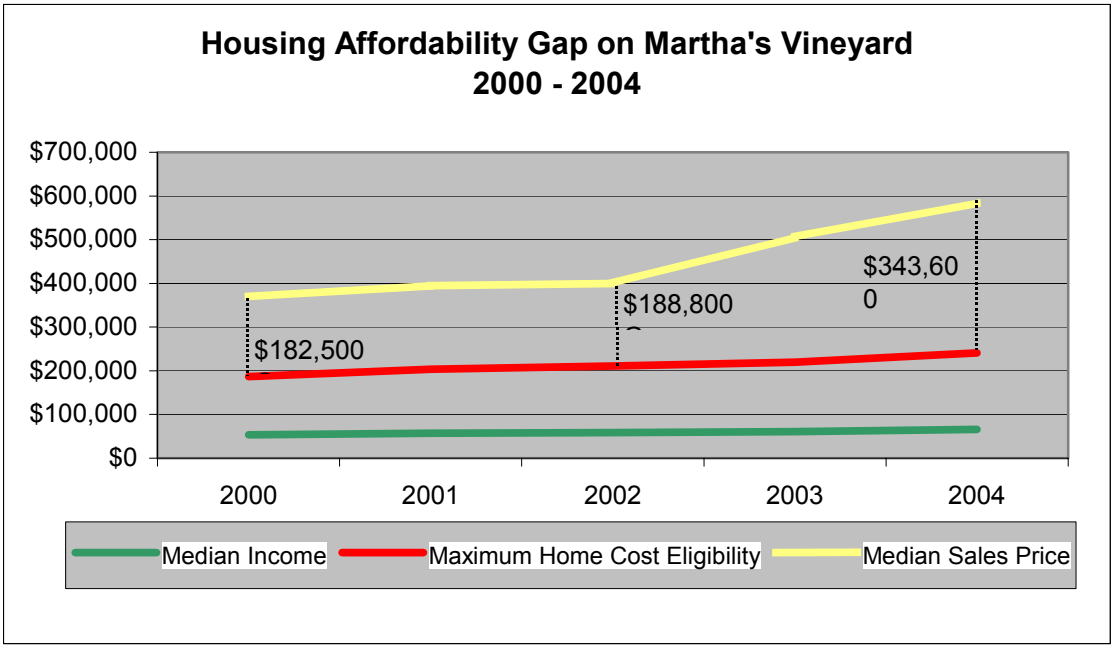
**ACTION INVENTORY**

The Cape Light Compact, a cooperative of 21 Cape and Island towns and Barnstable and Duke counties, formed in 1997 to collectively negotiate with electric energy providers and advance consumer protection. The compact's Energy Efficiency Plan targets services to assist consumers who want to reduce bills by switching from electric heat to oil or gas. It also offers rebates for energy-efficient appliances; free reviews of electric energy use; subsidies and no-interest loans for new construction and renovation; and a local education and marketing program. The general effort is to increase comfort and service and reduce usage and bills at the same time. The compact has also embarked on examining how its member communities might examine their respective land use and development regulations in anticipation of small electricity-generating facilities such as solar cells, wind turbines. These small generators would be designed for use by the landowner and would allow the landowner to sell excess electricity back to the power company. An example of how one person can make a difference, Island architect Kate Warner obtained a federal grant to promote the use of solar energy on the Vineyard and subsidize the installation of solar panels on 500 roofs by 2010. She formed the organization Vineyard Unplugged, which is sponsoring the development of an Island energy plan in 2005.

*Last updated: July 18, 2005*

## INDICATOR E2 Housing Affordability

***STATUS:*** A near doubling of affordability gap in just two years.




**TREND**
Worsening

**WHAT WE MEASURE**
We measure the affordability of homes in our community by looking at our median income, calculating the most expensive house that that income can afford according to the Department of Housing and Urban Development's standard of no more than 30% of gross income going to mortgage, property taxes and insurance (and renters should not pay more than 30% of gross income for rent and utilities). Put another way, we can typically afford to buy a house that is no more than about three and half times our annual income. The difference between the home that our income makes us eligible to afford and the sales price of homes constitutes the "housing affordability gap."

**WHAT IT MEANS**
While median home sale price was nearly double the price of what could be afforded by the median Vineyard income in 2000 through 2002, the next two years show a dramatic rise in the median sales price. The rise is on pace to more than double the size of the affordability gap from 2002 to 2005. To afford the 2004 median sale price of $584,500, a Vineyarder should earn about $160,000, or two and half times the Island's 2004 median income of $66,100.

There are several aspects to the Vineyard's housing dynamic that are directly affected by the tourist and seasonal nature of the Vineyard. Year-round residents, especially first time homebuyers, are competing with

second homebuyers who are often in the position to out bid them. The same also holds true for those renting a housing unit. As a seasonal community, year-round residents renting do not always have stable year-round housing. The seasonal rental market on the Vineyard provides a lucrative opportunity for landlords to rent their home(s) on a weekly or monthly basis during the summer months. As a result, year-round residents renting that housing unit are given a short-term lease and are then forced to compete with vacationers in addition to seasonal workers for summer housing at sharply higher rents. This also results in the all too common "island shuffle" of having to move two or more times each year, which has physical and sociological impacts in addition to economic effects.

The difficulties that some of us face to find homes is ironic in the sense that there is nearly one dwelling for each man, woman, and child living year round on the Vineyard (14,836 units and 14,987 people in 2000). But 56% of the housing units are vacation or retirement homes and only occupied seasonally.

**WHAT IT CONNECTS TO**

Affordable housing affects our business' ability to attract and retain employees. It influences the cultural continuity of our community by enabling successive generations to live in the same area or to even to stay on the Island during the summer. Having affordable housing increases the economic diversity of our community, and it allows us to have enough wealth, after paying rents or mortgages, to afford health care and other basic needs. Affordability of housing also connects to our successful land conservation efforts, which some people contend have inadvertently raised the overall cost of housing and increased property values. . Also, when housing costs are absorbing disproportionately large amounts of our income, we have less left over to make other investments that could help us live more sustainably, such as improvements to our home energy systems. Finally, while the seasonal homeowners have driven up the property values, they also are providing – through their property taxes – the majority of revenues to the towns for the public services Vineyarders depend upon year round.

**WHAT WE STILL NEED TO KNOW**

For something so basic to our being able to live on the Vineyard, we do not have a particularly good understanding of the variety of factors that so dramatically push up housing costs. To what extent are values inflated by the ability to rent homes or rooms in the peak summer season or by our being able to erect guest houses? We need to understand how housing affordability affects different age groups, such as retirees and our households with school kids. We need to know which members of our community are more vulnerable to rising housing costs, and which have a more tenuous foothold on the Island. We also need to continue to monitor land values and conduct ongoing surveys to determine current construction costs for housing. There is also widely differing opinion on the impact of the community's advances in land conservation is having upon land values.

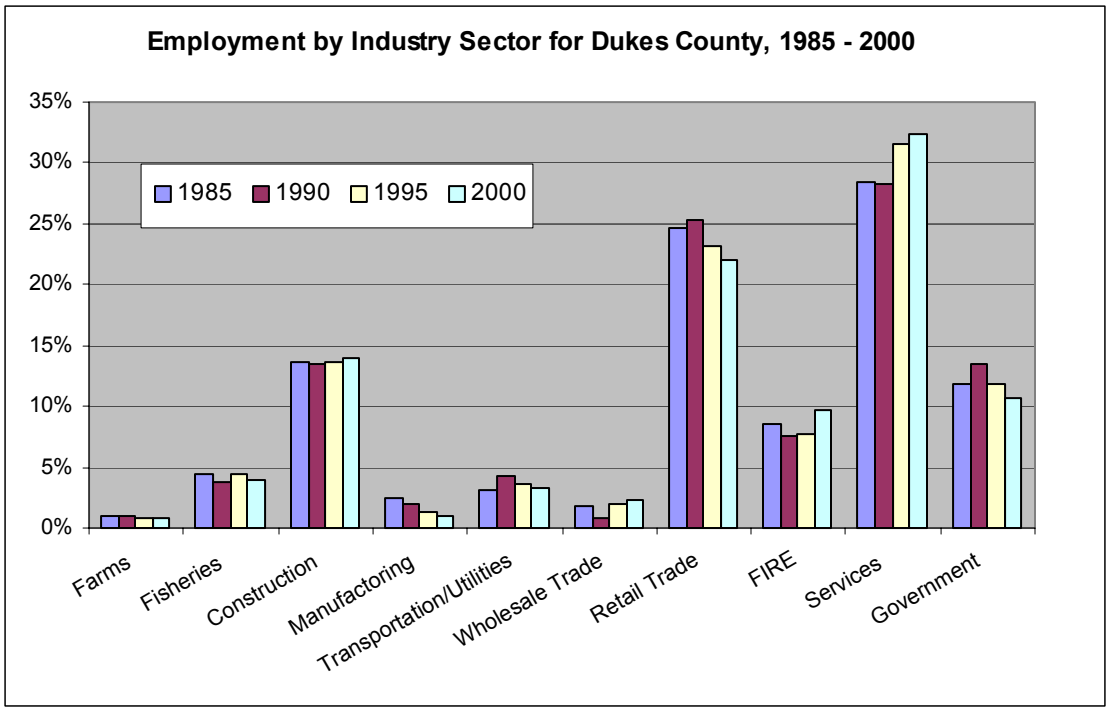
**ACTION INVENTORY**

Affordable housing is one Island issue around which much community organization and action has occurred in the past several years. Aquinnah and Chilmark adopted the Community Preservation Act in 2001 and the other four towns adopted it in 2005. The potential that the Island will create a Housing Bank modeled after its successful land bank holds even more promise to direct resources to the need for affordable housing. Among the many entities involved with housing are: towns housing and resident homesite committees, Habitat for Humanity, Housing Ecumenical Action Team, Bridge Housing, Island Elderly Housing, Aquinnah Wampanoag Tribal Housing, Island Affordable Housing Fund, Island Housing Trust, Dukes County Regional Housing Authority, Island banks and lending institutions, MV Land Bank and MVC.

*Last updated: July 7, 2005*

## INDICATOR E4 Jobs

***STATUS:*** Our mix of Island jobs stays fairly constant




**TREND**

Stable

**WHAT WE MEASURE**

We measure the distribution of our employment on Martha's Vineyard as reported by employers with payroll taxes. We want to know how this measure of our economy may be shifting and whether we are abnormally over/under represented in particular job sectors.

**WHAT IT MEANS**

Combined, retail and service (health care, landscapers, lodging, etc.) jobs have consistently accounted for more than half of all reported Vineyard employment. Construction and government jobs account for another quarter of reported employment. . Perhaps most surprisingly, construction jobs have consistently represented between 13 and 14% of total employment for the five-year intervals measured between 1985 and 2000.

Many of our jobs connect in some way to the large number of people who visit the Island. This explains, in part, why we have many service jobs; and it accounts for some of our retail trade and construction work. While we can be happy about this for many reasons, it also involves one cause for concern: the Island is sustained by off-island money. We are not self-sustaining. If the visitors or second-home owners whom we

depend upon for some of our jobs (not to mention our property taxes) were to go elsewhere, then we could find ourselves with a shortage of work. Since our service sector has been growing slightly faster than our other sectors, we should keep an eye on this dependence

## WHAT IT CONNECTS TO

The most significant challenge posed by the seasonal nature of the Vineyard has been the adverse impact on the housing availability and affordability for both year-round residents and seasonal workers. Other connections are issues such as employment, wages, parking, transportation, and the market demands of the year-round and seasonal economies. With regards to the traditions and physical character of the island, this indicator is also linked to Cultural Continuity because when we lose certain kinds of jobs, we lose the way of life, culture, and connections to history that are associated with that work. Our Sense of Community is also affected because changes in the kinds of jobs that our communities have, and in the location of those jobs, shapes our community and the ways that we connect to them and depend upon them

## WHAT WE STILL NEED TO KNOW

The available job data does not account for three aspects of Island jobs, each assumed to be substantial: self-employed sole proprietors, workers commuting to off-Island jobs, and illegal immigrant workers and the "underground" (unreported) economy. Also, in 1997 the federal government revised its standards for categorizing businesses from the Standard Industrial Classification (SIC) to the North American Industry Classification System (NAICS). This change results in preventing comparison of some pre- and post-classification change data, but greatly improves the ability to examine the great diversity of businesses formerly lumped together in our largest employment sector – services, which will now be divided into seven classifications.

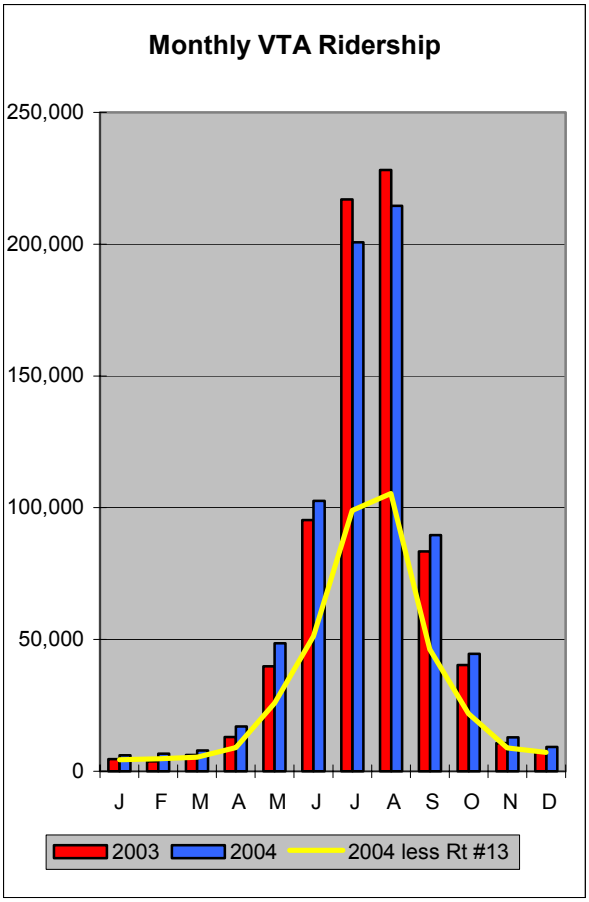
## ACTION INVENTORY

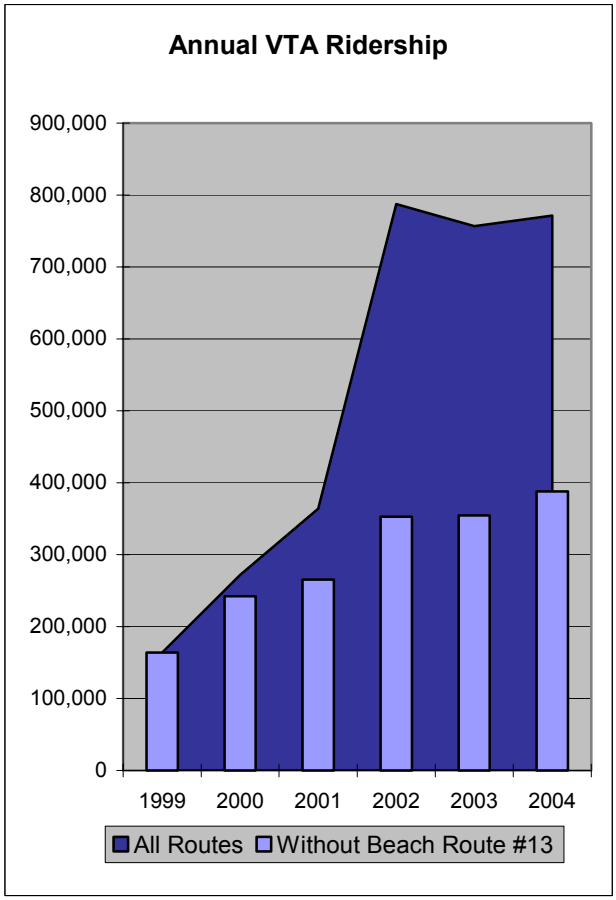
The MVC is working with the towns and the business organizations to utilize assessor and business permit data in compiling inventories of island business with attributes on type of business, employment, seasonality, residency and longevity.

*Last updated: July 24, 2005*

## INDICATOR E9 Transit Ridership

***STATUS***: More and more people are opting to use the bus.




**TREND**
Increasing

**WHAT WE MEASURE**
Here we are looking at the number of times one of us got on the bus during the course of the year, thereby avoiding one more car trip and keeping one more car off the road.

**WHAT IT MEANS**
Since 1994, when the Vineyard Transit Authority bus system had less than 100,000 riders, it added year round service in 1999 and in 2001bought-out the lucrative beach route running between the three down-Island towns. These changes and more resulted in a 2004 ridership of more than 775,000 people. More accurate mechanical counters added to busses in 2002, and an accounting change from calendar years to fiscal years interfere somewhat with comparing figures from year to year, but several observations are clear. The beach route (Route #13) accounted for half of the total ridership in 2004, and slightly more that half in July and August. These two months provided 55 percent of the year's riders. Each month in 2004

outpaced the ridership numbers from 2003, except for the two peak summer months. Factoring out the Route #13 figures also shows growth in the remainder of the VTA routes and less dependence upon the prime tourist route.

**WHAT IT CONNECTS TO**

Public transportation is generally good for air and water quality and ecosystem health because it reduces the total number of car trips. Fewer car trips translate to less road run-off, less car emissions, and less need for extensive new roadway expansion, thereby minimizing the visual impact upon our rural roadways that are so associated with our Island character.

Use of public transportation also links to public safety and community connectedness. Fewer cars on the road means less congestion, and hopefully safer roads. Public transportation also provides an opportunity for people to see each other and interact; bus riders see the faces of their neighbors and meet new people more often than those of us who are isolated in our cars. Riding the bus can also save us time by not having to worry about finding a parking space and being able to read or relax during the bus ride.

**WHAT WE STILL NEED TO KNOW**

The VTA already transports significant numbers of people, mostly in the peak summer. We need to focus efforts on understanding the transit need of year round residents and attract their patronage if we are to significantly reduce vehicular traffic. We need to better understand the characteristics of riders and to examine trends in off-season ridership.

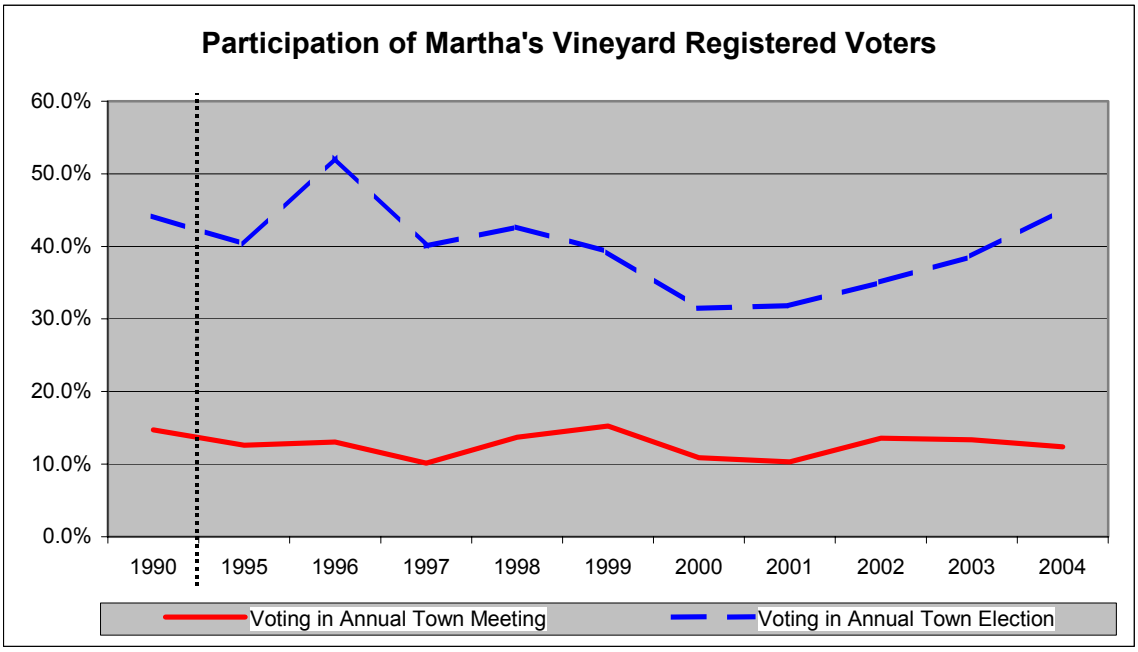
**ACTION INVENTORY**

The VTA continues to focus on frequency and dependability of service to instill rider confidence and satisfaction. It will be installing several bus shelters in suitable locations. The Chamber of Commerce and business associations, hospitality industry and SSA continue to market transit convenience to visitors and employees in attempts to reduce traffic congestion on the Island. The SSA continues to promote use by islanders via park-and-ride shuttle, which may cause islanders to consider transit for other purposes. The use of special shuttles to large events such as the Agricultural Fair also exposes people to transit whom might not otherwise consider the service. The MVC recently partnered with the SSA and the VTA to learn more about people's transportation habits. Because most homes, particularly up-Island, are some distance from a bus route, bicycling and walking are an integral component of transit service. The towns and MVC should examine their subdivision and development regulations, and signage and street maintenance practices to promote mobility on foot or bicycle. The VTA could also bolster efforts to accommodate bicycles, both on the buses and at bus stops.

*Last updated: July 20, 2005*

## INDICATOR S1 Political Engagement

**STATUS:** Our voting rates fluctuate widely.




**TREND**

Stable town meeting attendance; voting in town elections has fully rebounded from dramatic dip in 2000 and 2001.

**WHAT WE MEASURE**

We measure our engagement in community decision-making. Here we are interested in how many of us vote in annual town elections – rather than in statewide elections – because local participation demonstrates a commitment (whether out of passion or a sense of obligation) to our own community. We can compare this rate to the voting rates of other communities to gain insights into our lives and our towns. We also collect data about our attendance at annual town meetings – an activity that demonstrates an even greater commitment to our community. Finally, we look at how many of our local offices are sought by more than one candidate; and how many local offices no one has chosen to seek.

**WHAT IT MEANS**

Participation in politics and government is central to our society, our history, and our sustainability. As many as 70% of us have voted in elections in some of our towns, but in other elections, our participation has only been in the teens. Those of us who live in Edgartown and Chilmark have remarkable swings in participation from year to year – presumably because of interest (or lack of interest) in particular issues and candidates.

Oak Bluffs has had the most consistent voter participation since 1995, with a voting rate of about 45%. It recorded its highest rate (62%) in 1990 and lowest (32%) in 1980. West Tisbury's voter turnout has fluctuated more than Oak Bluffs', but 40% to 50% consistently exercise their right to vote.

Attending a town meeting is a larger commitment than voting. Perhaps as a result, fewer of us attend our annual town meetings than vote. Only about 10% of us who are registered voters in the three down-island towns attend town meetings – and each of those towns represents about one-quarter of the Island's total year round island population. In the two towns with the smallest populations, Aquinnah and Chilmark, our attendance figures stay consistently above 20%. In West Tisbury, which has grown five-fold since 1970, town meeting attendance ranges in the mid to upper teens. Its population figures fall midway between the other up-island and down-island towns and its town meeting attendance also falls midway between the other two groups. Attendance at our town meetings may be limited in part by the size of some meeting halls – they can't fit in any more people. Another may be the frequency of additional, special town meetings.

Among the largest community commitments we can make is to serve in voluntary public office. Each of the Island's towns elect people every year to fill 10 to 20 positions. Less than one-third of these positions are contested, with the down-island towns being twice as likely to have election races as the less populous up-island towns. But population size does not seem to affect whether or not some seats are sought by any candidate. Until 2003, Edgartown has consistently drawn a full roster of candidates for all of its seats; but Oak Bluffs, with a similar sized population, had the most positions on the ballots with no contestants.

## WHAT IT CONNECTS TO

Cost of living affects participation in elections and government: those of us who work two jobs to stay afloat do not have time, opportunity or energy to run for office, vote, or go to town meetings. Our sense of community affects this participation as well: the more engaged we are in the community, the more we see and know each other and care about local affairs. Also, many of us are active with civic groups beyond the town boards; selecting those issues to best invest our time.

Dissatisfaction can increase participation too, as we react to existing officeholders and contentious issues. As our communities grow, we have more people who can participate and fill elected posts, and therefore more "social capital;" but sometimes the percentage of us voting has gone down when our towns became more populated.

## WHAT WE STILL NEED TO KNOW

We need to know how we are doing when it comes to civic participation. If our attendance at town meetings declines, could we reach a point where our communities lose confidence in local decision-making? Towns have lowered the required number of voters that constitutes a quorum, for example, despite growing populations. Is this a danger sign? Local governing is increasing in complexity, requiring more time and more town meetings. Is there a threshold at which communities commonly consider changing to alternative forms of local governing?

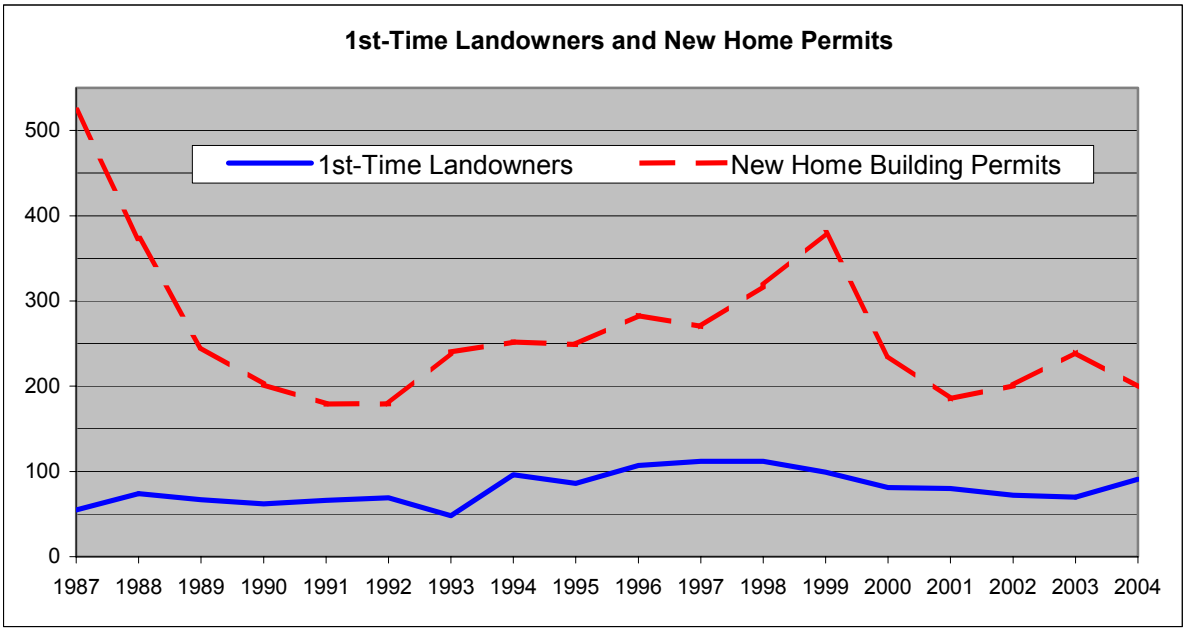
## ACTION INVENTORY

The League of Women Voters is diligent in hosting candidate and issue forums to inform the voting public. The town clerks and volunteers spend many hours to host elections. The local newspapers also advance public awareness by often running advance copies of voter ballots, candidate interviews and informative articles on ballot issues. The MVTV local access cable television stations and continues to expand its taped coverage of Island governmental meetings and represent a powerful tool for individuals to express themselves and for new ideas to be aired.

*Last updated: July 14, 2005*

## *INDICATOR S2* First-Time Homeownership

***STATUS:*** Despite skyrocketing building costs and fewer homes being built, the number of first time property owners remains steady.




**TREND**

Steady despite great obstacles.

**WHAT WE MEASURE**

We look at the number of first-time land-owners, as represented by the Land Bank's "m" exemptions from the Land Bank's transfer fee, and compare it to the number of new-home building permits to see the magnitude of new development in relation to the number of people trying to make their initial home on Martha's Vineyard.

**WHAT IT MEANS**

There is a clear trend in the numbers – the meaning of the trend is less clear. The number of people becoming landowners for the first time has remained surprisingly stable, despite the fantastic escalation in real estate prices in recent years and swings in the number of new home starts. Measured over nearly two decades, the number of people buying property for the first time has ranged yearly from 48 to 112, and averaged 90. The first four years of the 21st century, when real estate prices experienced their latest extraordinary jump, the numbers of first-time landowners was in the low 80s and low 70s (still above pre-1994 levels). However, in 2004, 91 people became landowners for the first time. And while the annual numbers of first-time landowners generally reflect the direction of the numbers for new home permits, the ratio of "m" exemptions to new home starts has ranged from nearly 1 in 10 for 1987 to almost 1 in 2 in 2004.

## WHAT IT CONNECTS TO

This indicator connects to cultural continuity because the ability to afford housing is necessary for keeping new generations on the Island. The affordable housing gap also connects to this indicator, as does general economic well-being.

## WHAT WE STILL NEED TO KNOW

The measure for this indicator does not directly measure how many new house permits are for first-time homeowners, whether the newly purchased land includes an existing home, or how long first-time landowners wait to build on their land. Nor does the number of "m" exemptions quantify how much demand there might be for first-time land ownership – only the number of people who are successful. This indicator also does not include any first-time landowners who receive property from a family member, nor does it identify whether some first-time owners are recipients of other types of affordable housing financial assistance, which, considering the substantial community efforts recently to address affordable housing, might explain the seeming contradiction of a constant number of first-time landowners during distinctly unaffordable real estate prices. Using the exemption figures also assumes that virtually all "m" exemptions will continue to be granted to islanders, though there is no regulation restricting such. Given all these caveats, it may be necessary to examine some of the individual building permits and "m" exemptions to gain a better perspective on the extent to which this is an appropriate indicator for this issue.

## ACTION INVENTORY

Many organizations are involved in addressing the affordable housing issue. They include: Dukes County Regional Housing Authority; Affordable Housing Coalition; Habitat for Humanity; Resident Homesite committees of the towns; Housing Ecumenical Action; Bridge Housing; Island Elder Housing; Island Affordable Housing Foundation; Island Affordable Housing Development Corp.; Land Bank; and the Chamber of Commerce's housing for seasonal residents project.

## DATA SOURCE

Martha's Vineyard Land Bank Commission; Town Building Inspectors; Town Reports

*Last updated: July 6, 2005*

## *INDICATOR S3* Physical Health: Access to Primary Care Physicians

***STATUS:*** Room for interpretation

**TREND**
Unclear

**WHAT WE MEASURE**
"You don't have anything if you don't have your health." A common saying that speaks volumes about the importance of our physical well being. Our access to primary care physicians is a keystone to our continued health as generally it is they who are responsible for overseeing our individual overall health care, preventative care, health education, and who make appropriate referrals for care. We also distinguish a primary care physician from a primary care provider, the latter of who is either a specialized doctor or specialized health care provider such as a chiropractor or homeopathic practitioner. There has been an average of nine primary care physicians on the Vineyard year round for the past several years. The count of physicians does not include part-time primary care doctors, nor does it include nurse practitioners.

**WHAT IT MEANS**
The importance of maintaining and having ready access to primary care physicians due to the role they play in the overall health care system of a community, particularly a small community, should not be undervalued. Ideally, preventative health care, health education, and routine health care begin at childhood and should continue for the duration of one's life. But for many island residents, like many mainlanders, that access to health care is not easily available or affordable for a number of reasons – one of which can be the shortage of doctors or a limited choice of doctors.

An intensive study by the Foundation for Island Health revealed that over 70% of year-round residents and 84% of part-time residents surveyed saw a doctor for regular health care services. The foundation determined this to be a much higher rate than nationally. But one in four residents went off-Island to seek health care services because they were not able to get a doctor's appointment within a reasonable amount of time or they needed specialty care that was not available on the Vineyard. Some people also replied that they preferred to see doctors off-Island. This suggests that it may be appropriate to include primary care physicians in Falmouth in the inventory of doctors available to Vineyarders.

Indeed, this might explain the foundation's survey finding of a much higher than normal percentage of the Vineyard population reporting having been to a doctor for regular health care. The foundation's survey also concluded that Vineyarders in 2002 were very healthy compared to the rest of the county. Overall, we are in better shape, less likely to be obese and smoke less. It also noted that one in three year-round respondents reported regularly using a complementary or alternative care practitioner such as touch, herbal or other therapy, which the report states is "a lot more common than" on the mainland.

## WHAT IT CONNECTS TO

This indicator is the first step in measuring the accessibility of health care on the Vineyard. This relates to the overall quality of care that is provided, along with the efficiency of any health care system within a community. The inability of residents with non-emergency ailments to see a doctor places serious strains on our hospital's emergency room, which has a much higher cost of care. The lack of health insurance may also deter a person from seeking treatment from a primary care physician or a health care provider. The rate of substance abuse is also connected to having education and preventative care services provided to patients by their primary care physician. Access to physicians off-Island also has implications for the demand for ferry service.

A sustainable community must also examine the overall issues of health that relate to education, prevention and wellness. Lifestyle choices affecting one's health, such as exercise, rates of obesity, smoking and time spent with our families, go hand-in-hand with access to medical professionals in keeping ourselves fit.

## WHAT WE STILL NEED TO KNOW

The integral elements of access to primary care physicians, the overall health care system, ability to pay (insurance), as well as lifestyle choices make it difficult to understand the relative importance of each. The recent Island health survey contained some very positive findings about the percentage of Islanders who see doctors and enjoy good overall health. As the survey was self-selecting, we need to examine the results more fully to determine how representative it is of the full range of socio-economic segments or our community. In terms of the number of full time primary care physicians on-Island, we do not know what combination of factors may be discouraging their numbers from increasing. Certainly economics is a consideration. To what extent does the availability of doctors an hour away in Falmouth factor into the market of potential patients for Island doctors? To what extent do Vineyarders use alternative health care practitioners as their primary care provider? While most of us are healthier than much of the rest of the nation, how to we compare to places with similar lifestyles?

## ACTION INVENTORY

The Foundation for Island Health works to continually improve local health care for Vineyarders. It builds partnerships among Island organizations involved with health care to optimize information and resources. It launched a pilot program in 2003 exploring the potential for "electronic office visits" that could increase the accessibility of doctors to their patients.

## DATA SOURCE

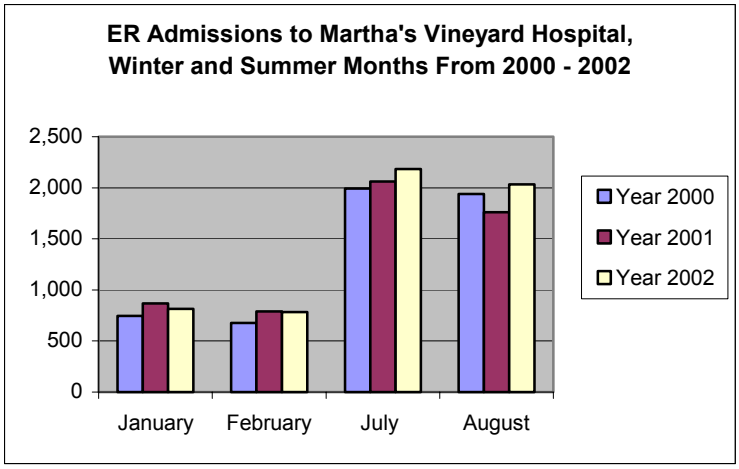
Foundation for Island Health, The Martha's Vineyard Health Report, 2003

*Last updated: July 6, 2005*

## *INDICATOR S4* Emergency Room Admissions

***STATUS:*** The Emergency Room is feeling the strains of an inadequate health care system.

**TREND**
Too soon to tell?




**WHAT WE MEASURE**

One of the many challenges that a tourist community faces is the ability to provide basic services for its year round residents and seasonal population. One service that has been an on-going challenge to maintain is a year-round operating Emergency Room. Many times individuals who do not have a primary care physician or primary care provider will go to an Emergency Room for non-emergency medical services. The difference between the winter months versus summer months admission rates to the ER is significant not only to the overall operational needs of the ER but also the overall access to a adequate health care system.

**WHAT IT MEANS**

The raw numbers of ER admissions indicate that the summer time admission rates place more strains on the ER than the winter months. Until there is further analysis, the rates of admission for both winter and summer would indicate that there is an insufficient amount of health care services that specifically deal with either non-emergency ailments or routine health care services. In a recent health care survey, 29% of year round residents who were surveyed reported to use the ER in 2001 and 2002 for non-emergency related services and 12% of part time residents surveyed reported the same thing. To alleviate some of the strains on the Emergency Room is to provide more health care services by establishing a greater number of walk-in- clinics or increasing the number of year-round primary care physicians or health care providers. There are other effective methods that could help the overall health care system on Martha's Vineyard but those methods may not be as effective until more detailed data has been collected.

**WHAT IT CONNECTS TO**

The Emergency Room admission rates connect to the inability of year-round and seasonal residents to easily access a doctor for what many times are non-emergency ailments. The seasonal demands placed on the ER also connect to the issues of health insurance and the overall quality of health care that is provided to patients. But most importantly the ER admission rates connect to the lifestyle choices of individuals, which have an enormous impact on the overall issues of health that relate to education, prevention and wellness.

## WHAT WE STILL NEED TO KNOW

The data from the hospital also tracks information regarding the status of a patient's health insurance coverage and also the patient's primary residence. Further analysis of the data collected from the hospital would need to be conducted, specifically, gathering information breakdowns of emergency versus non-emergency visits to the ER. This information can assist hospital administrators to improve the day-to-day operations of the Emergency Room as well as provide other cost effective services for non-emergency ER visits. Other information that should be collected is the number of work-related accidents.

## ACTION INVENTORY

Create a database to track detailed information regarding patients. Examine the overall access to health care and its impact on the ER more closely.

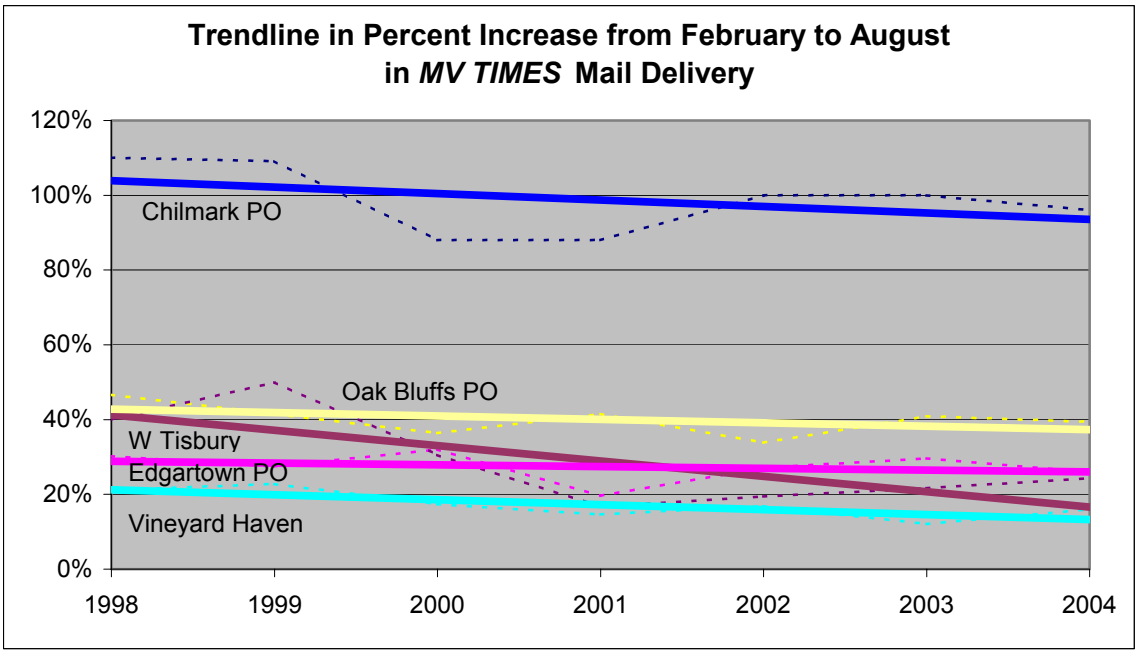
## DATA SOURCE

Martha's Vineyard Hospital; The Martha's Vineyard Health Report, 2003

*Last updated: Summer 2004*

## INDICATOR S10 Seasonal Residents

***STATUS:*** "Part-timers" seem to be a shrinking percentage of our summer population.




**TREND**
Decreasing?

**WHAT WE MEASURE**

While it may seem odd to mainlanders that people who only live here part-time, our seasonal residents, are not looked at as visitors but as an essential part of what comprises the community of Martha's Vineyard. Seasonal residents are a stabilizing force in our culture and in our economy; they are an important part of the Vineyard community. Generations of families have summered here in second homes or in long-term rentals. Week by week throughout the summer, familiar faces return and we reacquaint ourselves. They are as much a part of summer as the Agriculture Fair or Illumination Night. It is important that we are aware of changes in this segment of our community.

To get a sense of the change in the numbers of seasonal residents, we look at the difference between our peak-season and off-season populations. Since we only have estimates for summer population numbers, we use a more consistent measure: the difference in the mail distribution of the *Martha's Vineyard Times,* a weekly newspaper free to all postal patrons. While not all residents (or summer residents) subscribe to the *Times*, we make the assumption that the percentage change in the *Times* circulation is reflective of the change in the overall population.

## WHAT IT MEANS

Plotted on the graph is the difference between *Times* delivery volume in February and August, shown as a percentage. While there continue to be summer spikes in additional volume of papers delivered, the magnitude of the spikes is diminishing, as illustrated by the bold trend lines in the graph. This trend is consistent across the Island – from Chilmark, whose summer paper circulation doubles from the off-season numbers, to Vineyard Haven (a popular postal "home" for residents of other Island towns) where the summer spike is less than 20 percent. West Tisbury shows the most precipitous drop change in seasonal paper distribution – dropping from a 40% jump in the summer to less than 20% in the summer of 2004. Our year-round population size has been steadily increasing. But the percentage of our summer population that is "seasonal" appears to be shrinking. There may be the same number of seasonal residents, but they are staying for shorter periods of time – perhaps too short to bother with a summer mailing address.

These circulation figures also show that the Island's year round population that receives mail is growing – that there is a smoothing out of the seasonal variation in the number of people living on the Vineyard. An expanded year round population has its own set of pros and cons for the community.

## WHAT IT CONNECTS TO

This indicator strongly affects our sense of community, our cultural continuity, our Island's physical character, and the kind of life that we have here on the Island. Seasonal residents are often just as passionate as we year-rounders and contribute mightily, both financially and otherwise, in local issues and in community activities. The property taxes from their homes and money they spend on-island exceed the cost of services they use. If the number of seasonal residents is indeed dwindling, the number of shorter-term renters and visitors may increase, which could increase the turnover of rentals and the demand for transportation to and from the island. Seasonal residents offer important tourist dollars to Martha's Vineyard, this annual fluctuation in our population size, and the transience that represents, can make the community less stable.

## WHAT WE STILL NEED TO KNOW

We have more to learn about the specifics of our seasonal population. If people are indeed staying on the Vineyard for shorter periods, it is less likely they will get mail delivery, suggesting that an alternative measure be found for this indicator. Are our seasonal guests the same people every year, or how many of them are new? And what is driving this change, in general?

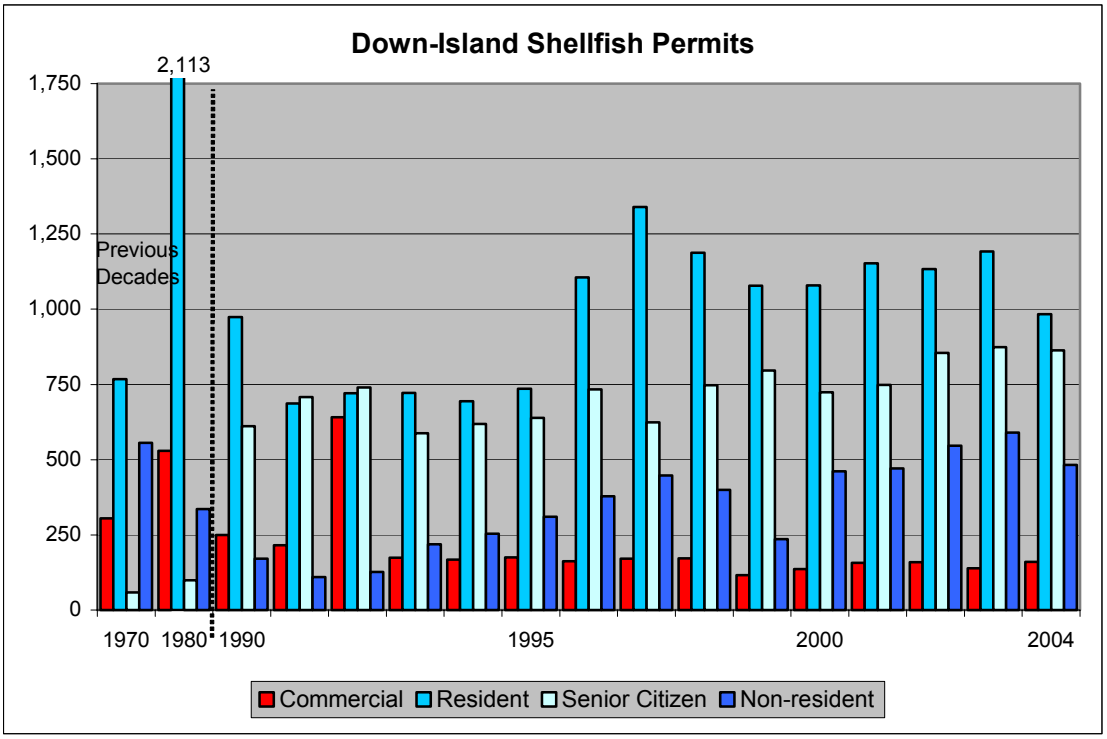
## ACTION INVENTORY

The summer is when the Island's arts, services and philanthropic groups elicit exposure and monetary support, seizing the opportunity when many wealthy landowners and visitors vacation here. These groups may have other perspectives on the changes in seasonal residents and the ramifications to our community. Some towns attempt to keep track of the number of seasonal residents. Their numbers could be compared to our proxy to perhaps yield a better indicator. Recent surveys by the MVC have included questions intended to provide insight in to the characteristics of visitors to the Island.

*Last updated: July 18, 2005*

## INDICATOR W1 Cultural Continuity

***STATUS:*** A lot more people interested in shellfishing, but fewer earning money from it.




**TREND**

Commercial permits reduced by at least one-half of pre-1990 figures while recreational permits are up sharply from mid-1990s and about on par with 1980 volume.

**WHAT WE MEASURE**

Passing Island tradition and culture from one generation to another is clearly a priority for Martha's Vineyard residents. To be able to sustain values for the island way of life, the "way life used to be," is very important to this community. What exactly defines our "culture" or constitutes "continuity," however, is quite elusive to pinpoint. While it may seem odd at first to suggest there is a correlation between the volume of shellfish permits and the Island's Cultural Continuity, shellfishing embodies many of the values inherent to our community: being outdoors and attuned to the vitality and changes of the natural environment; the simplicity and self-sufficiency of directly harvesting seafood. The whole family can participate in shellfishing. Tracking the types of permits also shows the extent to which people are engaged in shellfishing for their livelihood and whether islanders' and visitors' continue to have a connection to and awareness of – even if only recreationally – the value of the island's aquatic resources. Changes in the number of commercial permits may illustrate trends in the viability of shellfishing on the Vineyard – a long-time economic, as well as cultural, community trait. We use just the information for the down-Island towns since data for the up-Island towns is less complete and usually represents less than one-quarter of the number of down-Island permits issued.

## WHAT IT MEANS

From this data it appears that interest in recreational shellfishing is increasing while the number of commercial permits remains steady, although significantly lower than pre-1990 levels. Perhaps one of the indications of the cultural significance of shellfishing is that permits for seniors are generally free and their numbers are substantial – for every 10 resident shellfishing permits in the down-island towns in 2004, there were 8 additional senior permits and 5 additional non-resident permits. In the 1990s, down-island senior permits increased 18 percent while the senior population increased by less than 15 percent. The number of non-resident permits jumped more than 180% since 1990, but, at around 500 permits, is back to the volume recorded for 1970 and emphasizes that visitors also appreciate the quiet ways and natural character of the Vineyard.

## WHAT IT CONNECTS TO

The number and type of shellfishing permits is linked to the health or our estuaries and wildlife. Shellfishing promotes awareness of the interconnectedness of water quality with recreational and commercial shellfishing. Seeing people wading in a great pond with decidedly "low-tech" equipment reminds us of how this same scene has played out for many generations.

## WHAT WE STILL NEED TO KNOW

How often are permits used? Most non-resident permits are for less than a month in duration. Are these permittees mostly repeat visitors? What is their typical length of stay on the island? We also have not examined what role changes in the cost for obtaining permits may have had on the number of permits issued. What are the implications for the shellfish resource, pond access and competition for fishing space as the number of people shellfishing increases? Even if we can answer all of these questions, is shellfishing really the best measure of Cultural Continuity on Martha's Vineyard?

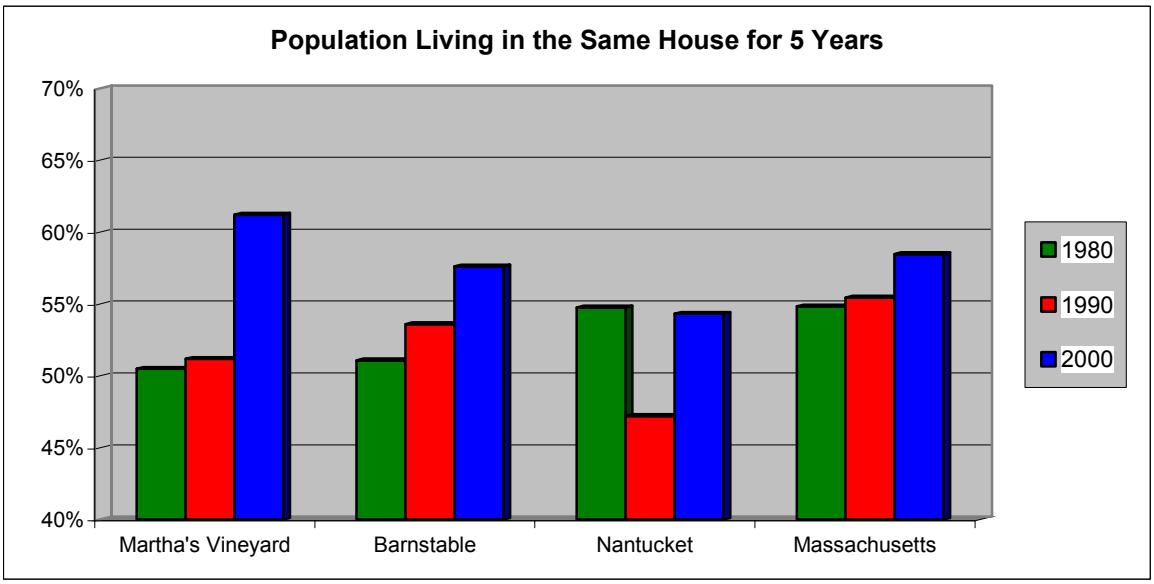
## ACTION INVENTORY

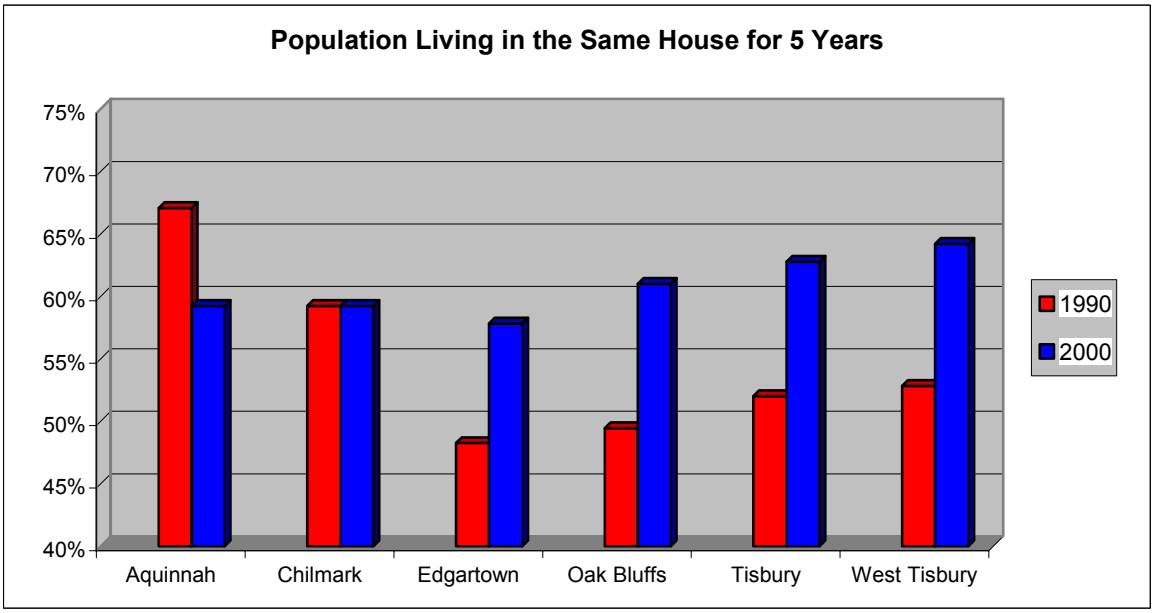
Much could be learned about the residential shellfishemen from speaking with the town shellfish constables. As towns sell shellfish permits, perhaps questionnaires could be given to permit seekers to learn more about, among other things, who gets permits and why, and how frequently are they actually used.

*Last updated: July 12, 2005*

## INDICATOR W2 Sense of Community

**STATUS:** As of 2000, more and more of us staying put.




### TREND

Increasing numbers of us continue to reside in the same houses.

### WHAT WE MEASURE

When citizen groups identified important characteristics to monitor the Island's vitality, "sense of community" was among the highest rated factors. And yet, they had difficulty in trying to quantify what exactly this is. In part, this is due to our individual differences in what we sense or perceive our relationships to be with our neighbors, townspeople, and fellow Islanders. Community is something that we "sense," but it is often difficult to quantify. Here we attempt to measure it by looking at the percent of families who still live in the same house they were living in five years ago. While five years of continuous

residency may not sound like a long time to some of us, it is longer than people in many parts of the United States stay in one place. Half of all Americans age 15 and over move to a new home within 5.2 years.

**WHAT IT MEANS**

In 2000, about 60 percent of us had lived in the same house for at least the previous five years, up from about 50 percent in 1980 and 1990. More than four of every five of us in 2000 had lived somewhere on the Vineyard for at least the previous five years. It means that many of us know each other and have a deep familiarity with the society and landscape around us. This is a strong sign of continuity of residency and community stability. By this measure, in 2000 the Vineyard had a more stable population than elsewhere on the Cape and Islands, or in the Commonwealth as a whole. But does this equate to a feeling of community? Why do we commonly lament that we don't recognize as many people as we used to? Because that is also true; there are more new faces among us. Also, when someone we know moves off-Island – let alone several people – it directly decreases our portion of the "community."

**WHAT IT CONNECTS TO**

When we run into our dentist at the bait shop or see our child's teacher at a local benefit, it increases the sense that our lives are intimately connected. Knowing the person in front of us in line at the grocery store helps remind us that we live in a community and that we all share similar needs. It contributes to mental health in feeling that we are part of a supportive community – that people know and care about us. This continuity helps us to feel connected to our community and our decision-makers, and gives us more reason to feel responsible for public safety and local well-being.

**WHAT WE STILL NEED TO KNOW**

The extraordinary escalation in Vineyard real estate prices since the 2000 Census figures on housing tenure may have significantly changed the volume of Islanders who have remained in their houses or remained on the Vineyard. We need to determine whether Sense of Community can be quantified. Using tenure of residency as a measure of the vitality of our community discounts the extent to which our seasonal residents and recent "wash-a-shores" contribute to our sense of community, whether by involvement in community affairs or civic groups, or just being a neighbor we know. If our sense of community is associated with change – whether people, buildings or landscapes – we should not expect that these factors will ever stop changing.

**ACTION INVENTORY**

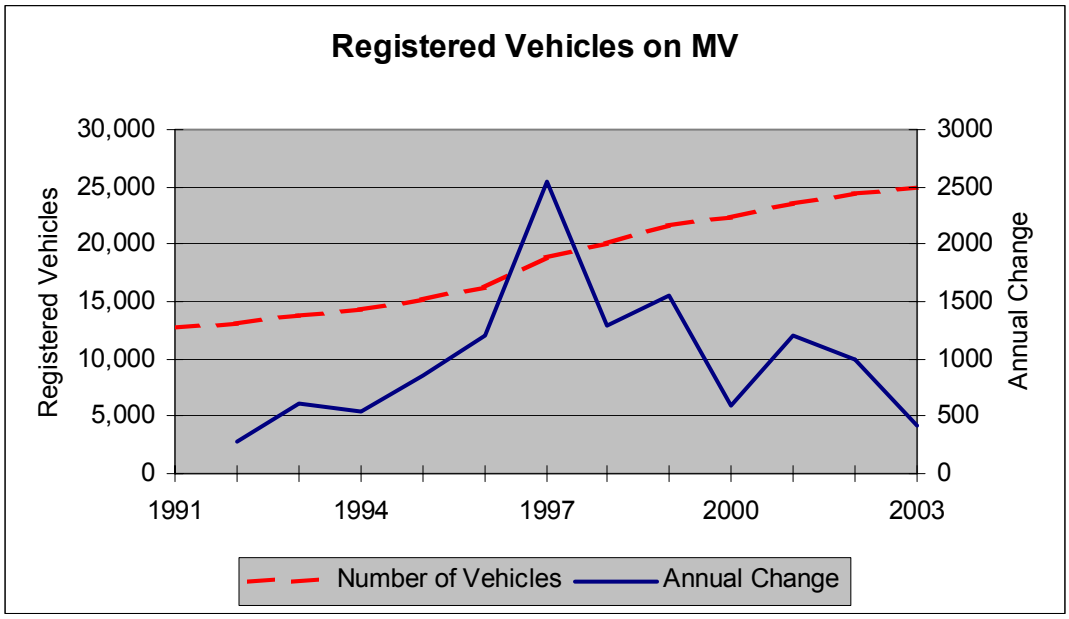
The best way to increase our sense of community is to become involved in community activities and to talk with our neighbors. There is no shortage of town, civic, or cultural committees and activities in which to participate. As for gauging the island's overall sense of community, we hope to add two customized questions to the annual standardized ACT survey of High School seniors: "Were you born on Martha's Vineyard?" and "Did either of your parents attend High School on Martha's Vineyard?" These questions are not perfect in that they will not account for Islanders with no children in the public school, which in light of our desirability as a retirement location could be a substantial omission. But over the long term, this will give us an additional measure of continuity in our community.

It may well be that sense of community cannot be measured by only one indicator but must use several to address the range of individual perspectives – just as we monitor two dozen characteristics to get a broad understanding of the Island's condition. So, we must be on the lookout for suitable indicators of what makes people feel they are part of a supportive community.

*Last updated: July 19, 2005*

## INDICATOR W6 Traffic Congestion

***STATUS:*** The number of registered motor vehicles continues to grow sharply.




**TREND**
Increasing.

**WHAT WE MEASURE**
Traffic is one of the most frequently cited problems on Martha's Vineyard. One gauge of traffic congestion on our island is the number of vehicles registered in Dukes County.

**WHAT IT MEANS**
Between 1991 and 2000, the number of registered vehicles went from 12,807 to 22,345, an increase of nearly 75%. The number of full-time residents, in contrast, rose 25%. By comparison, vehicle registrations on Nantucket jumped 80% in the 1990s while its population increased 58%. The growth in the number of vehicles is far outpacing the growth in the number of people on the Vineyard.

If the Vineyard's vehicular growth rate were to continue, we could have 30,000 cars, trucks, and motorcycles registered by 2007. This underscores the accelerated, unsustainable rate seen over the last decade.

**WHAT IT CONNECTS TO**
This increase in vehicles translates to increases in traffic congestion, difficulty in parking downtown, tight space on the ferry, and pressures on the environment. Vehicle emissions reduce air quality. Habitat is reduced when we build roads, driveways and parking areas, and ecosystems suffer from an increase in

things like wiper fluid, nitrogen loading of Great Pond waters via the atmosphere and leaked motor oil. Motor vehicles increase our sense of mobility and freedom, but they come at the cost of noise and fossil fuel consumption. Of course, people need personal vehicles when homes and community facilities are located is sparsely developed rural areas, so vehicle registration may reflect our pattern of land use. Congestion steals time from us, both work and recreational, and is a source of irritation and reduces some of the factors that create our island's quality of life.

## WHAT WE STILL NEED TO KNOW

We don't have exact numbers to know why vehicle ownership here is increasing to such an extent, though some is certainly in response to the SSA's establishment of preferred customer profile numbers which required a vehicle be registered on Island. We don't know the extent of such registrations. Nor do we know how the number of vehicles on-island correlates to actual vehicle use and traffic congestion.

## ACTION INVENTORY

Regardless of how much clustered and infill development that can be achieved among the towns, or how heavy the public transit ridership becomes, the great majority of people will still own at least one vehicle to get around on- and off-island. The opportunities for reducing the growth rate of vehicle registrations s are increasingly aware that their zoning regulations frequently force new development to be spread out more than most of our historical development and more dependent upon vehicle use.

*Last updated: July 20, 2005*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