

*Council on Environmental Quality*

ENVIRONMENTAL  
QUALITY IN  
CONNECTICUT



*2003 Annual Report*

STATE OF CONNECTICUT  
COUNCIL ON ENVIRONMENTAL QUALITY

July 15, 2004

The Honorable M. Jodi Rell  
Governor of Connecticut  
State Capitol  
Hartford, CT 06106

Dear Governor Rell:

I am pleased to submit this annual report on the status of Connecticut's environment.

The Council established a set of annual environmental indicators several years ago to measure Connecticut's achievements. This report relies heavily on those indicators. We are confident that they present a reliable and comprehensive overview of Connecticut's progress, be it rapid or slow, in managing its air, water, land and wildlife.

In a new format adopted this year, environmental trends are reported in brief in Part One, while greater detail follows in Part Two. I hope you find the report to be useful. During the coming year, the Council will be submitting special reports on pressing policy questions. As always, the Council stands ready to provide you with any additional information or assistance that you may request.

Respectfully,

Donal C. O'Brien, Jr.  
Chairman

79 Elm Street, Hartford, CT 06106  
Phone: (860) 424-4000 Fax: (860) 424-4070  
<http://www.ct.gov/ceq>

## *Table of Contents*

*Page 2*

*Introduction*

*Page 4 - 26*

*PART I: Indicators*

*Page 4*

*Air*

*Page 6*

*Farm, Forest, Wetland*

*Page 10*

*Sound + Shore*

*Page 19*

*Rivers + Reservoirs*

*Page 21*

*Human Health*

*Page 23*

*Leading Environmental Indicators*

*Page 27 - 34*

*PART II: Details*

*Page 35*

*Activities of the Council*

*Page 37*

*CEQ Member Biographical Information*

*Page 40*

*About the CEQ*

*Inside Back Cover*

*Acknowledgments + Memo to Readers*

## *Introduction to Environmental Quality in Connecticut*

---

Residents of Connecticut born before 1985 have seen dramatic and obvious improvements in the air, water and wildlife around them. Children and young adults have not, and the environmental restoration they will see in their lifetimes will be so slow as to be nearly imperceptible. Statewide trends show that the era of rapid progress is over. The goals of clean air, clean rivers, and healthy ecosystems will be met only after more decades of commitment, public investments and technological advances.

This news is by no means all bad. One of the reasons that progress has slowed is that Connecticut has moved closer to its goals. Furthermore, the state, its municipalities and its businesses have solved many problems – such as the haphazard handling of hazardous wastes and the destruction of tidal wetlands – that were out of control in the 1960s and 1970s. Many definite risks and potential catastrophes have been averted, but this type of success rarely shows up on charts as measurable progress.

Yet genuine problems persist.

**Last year saw the thirtieth anniversary of the Council on Environmental Quality's first annual report on the condition of Connecticut's environment. During these decades, the Council has developed a comprehensive set of environmental indicators to chart the state's progress. These annual indicators are the foundation of this report, and they tell us that:**

---

- Connecticut's air has not changed much in the last decade. Charts show there is less pollution, but the most-noticed product – the number of bad or good air days – remains about the same.
- The water in Long Island Sound is getting better, but the benefits that people might experience directly – the lobsters, birds, fish and open beaches – are about the same or a little worse than they were five or ten years ago. An exception is the ever-growing population of ospreys, evidence of relatively clean water, reductions in key chemical pollutants, and abundant prey.
- Numerous sewage treatment projects have yielded cleaner rivers, but lingering sources of bacteria prevent residents from being able to swim in many of them. Spreading development continually degrades smaller streams, despite stronger regulations, and the largest source of bacteria in our rivers and streams is classified as "unknown." More miles of river are impaired by pollution from the land that goes into runoff and storm sewers than by industrial and municipal pipe discharges combined. (A clean stream can show effects of pollution when as little as 15 percent of its watershed is developed.) Fish in all rivers and streams are contaminated with mercury from air pollution at levels that prompt health officials to advise residents to limit consumption of the fish they catch, and this condition is static.
- Some land resources show no progress at all, and some show decline, despite a record-setting pace of open space conservation since 1999.

- Rates of certain cancers, including breast cancer and non-Hodgkin's lymphoma, show continual increases, and Connecticut has the fourth highest incidence of breast cancer among the fifty states. Several studies cite environmental factors as possible causes of these cancers. Even if those possible causes were eliminated, the trend could not reverse for many years.
- Most leading environmental indicators – which measure behaviors and practices that should affect the environment of the future, including vehicle use, electricity consumption, recycling and compliance with environmental laws – are showing minimal change or slight worsening.
- In the short term, the Department of Environmental Protection (DEP) will be hard pressed to keep up with routine permitting and enforcement duties and will have few resources to help push environmental progress forward. Personnel reductions have resulted in far fewer inspections and in longer waits for permits:
  - Inspections have declined every year for six years. The DEP has been able to maintain compliance rates (see page 25) with fewer inspections, but the 50 percent decline since 1997 is one illustration of how the DEP is constrained by limited resources.
  - The DEP has worked to maintain the processing of permits in the face of staff reductions. In fact, from October 2003 through March 2004 the DEP reported that it closed out more applications than it received. Nonetheless, as more than 1700 applications remain pending, applicants for some types of routine permits will wait more than a year for decisions. New permits that replace older permits often result in a better environment, but the overall effect is gradual and never occurs at all if the new permits are not issued.

None of the trends above suggests that current environmental protection measures are failing. They do improve the state's air and water, and generate substantial benefits for the public's health and the state's economy. Yet many young citizens in suburban and rural towns barely will be able to detect these gradual improvements as they watch land development clear the woodlands and pollute the small creeks of their childhoods. It scarcely will look like environmental progress to them.

The one resource that will determine the fate of all the others is Connecticut's land, and it remains the one in most need of attention. Agricultural vistas and large forests are broken up, traffic spreads, small streams get polluted, and many species of wildlife diminish as land is consumed to serve Connecticut's fast sprawling (but slow growing) population. How Connecticut can meet its demand for land development while conserving the water, air, and wildlife that derive their quality from the land will be the Council's focus over the coming year.

The Council will hardly be the first to confront this complex challenge. With causes rooted in such diverse factors as municipal zoning regulations, market forces, state subsidies and aspects of the property tax, the solutions will go well beyond the bounds of traditional environmental policy. The decisions that lie ahead will affect everyone, and many organizations and individuals are already hard at work on charting a better course.

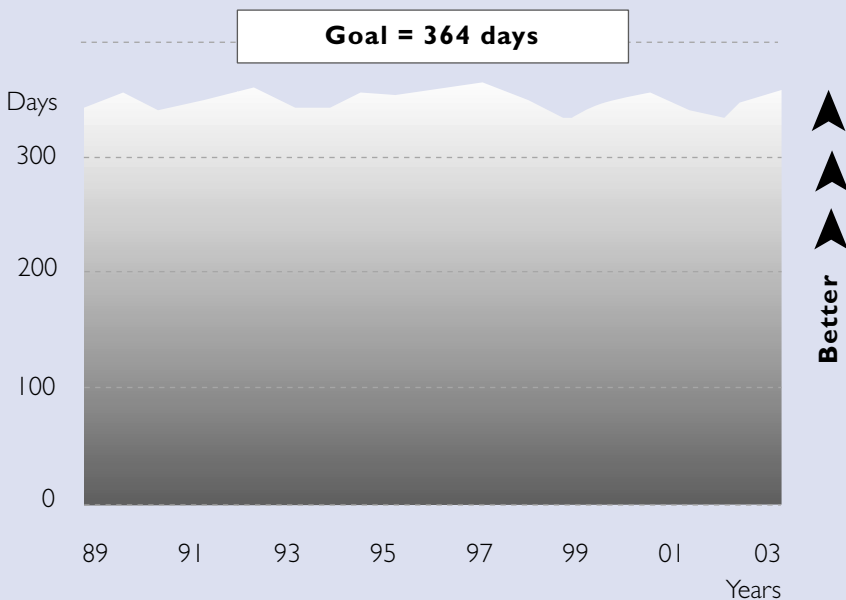
## **A new format**

---

Regular readers of *Environmental Quality in Connecticut* will notice some changes. The basic indicators of environmental quality are still included, but with less technical detail accompanying the graphs. Readers who wish to know more about the source of the data and the meaning of the trends will find this information in Part II: Details.

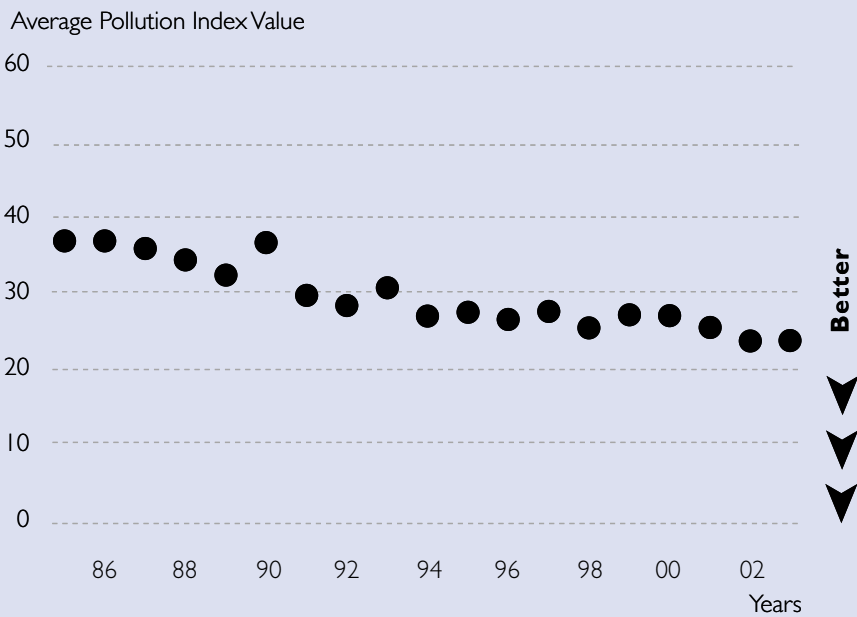
## Good Air Days

*Connecticut's air meets all health-based standards except for one pollutant (ground level ozone) which violates the standard about 15 to 30 days each summer.*



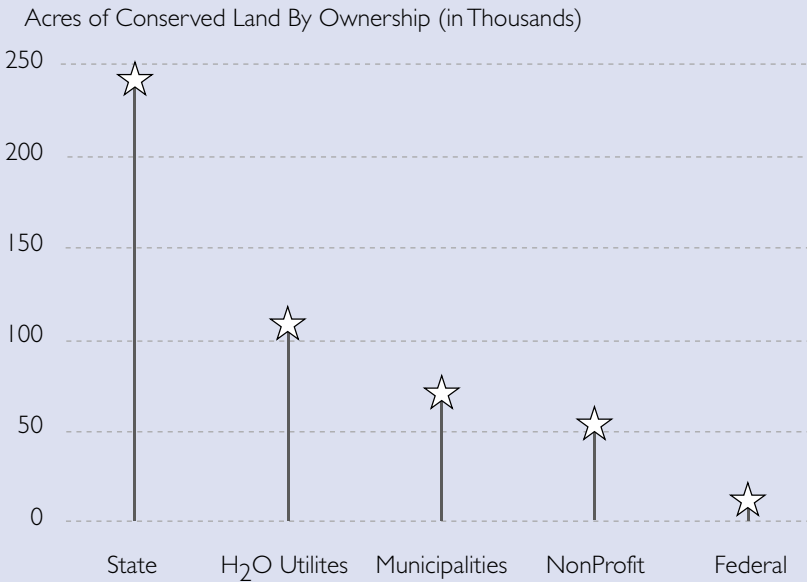
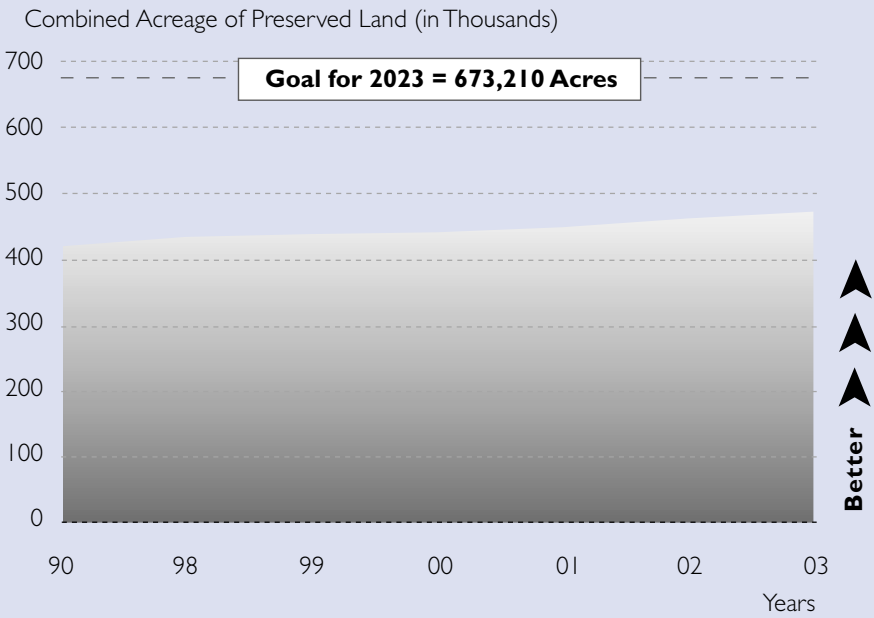
# Clearing the Air

*Connecticut's air shows gradual long-term improvement.*



## Preserved Land

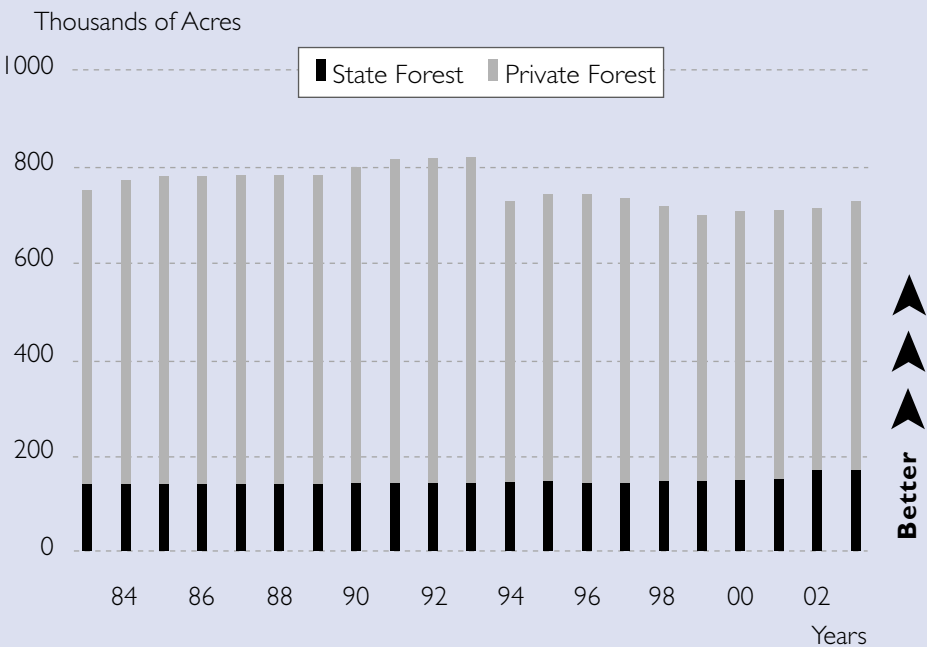
*Since 2000, Connecticut has added an average of 10,500 open space acres per year. This pace, if maintained, will keep the state on track to reach its 2023 goal.*





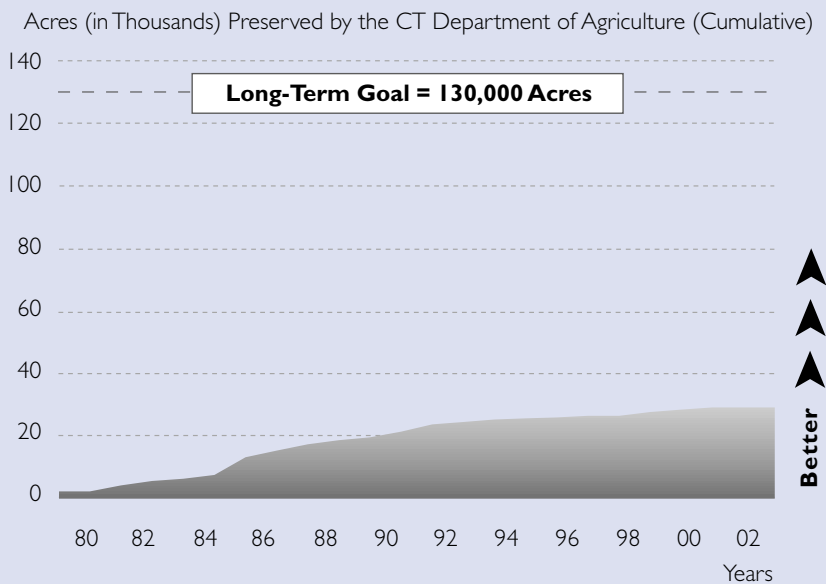
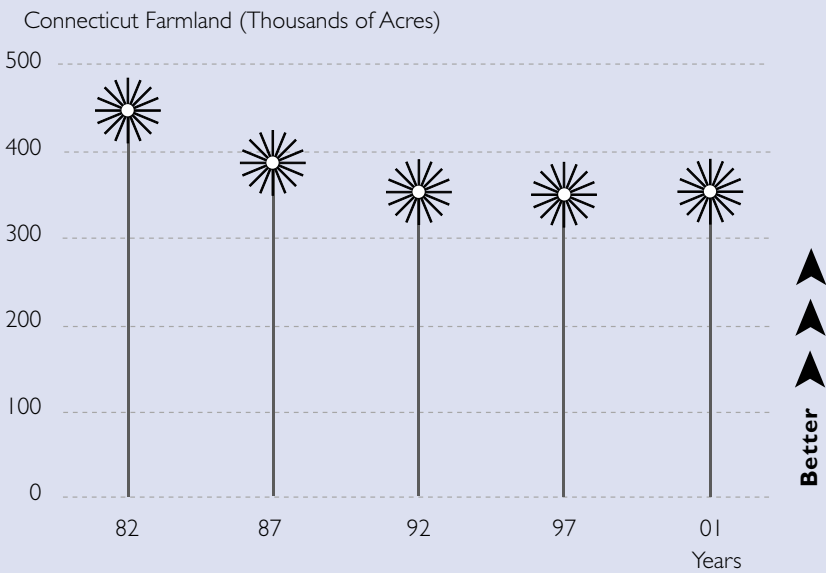
# Forest

*The state has added nearly 30,000 acres to the State Forest system since 1997, while private forest acreage has declined.*



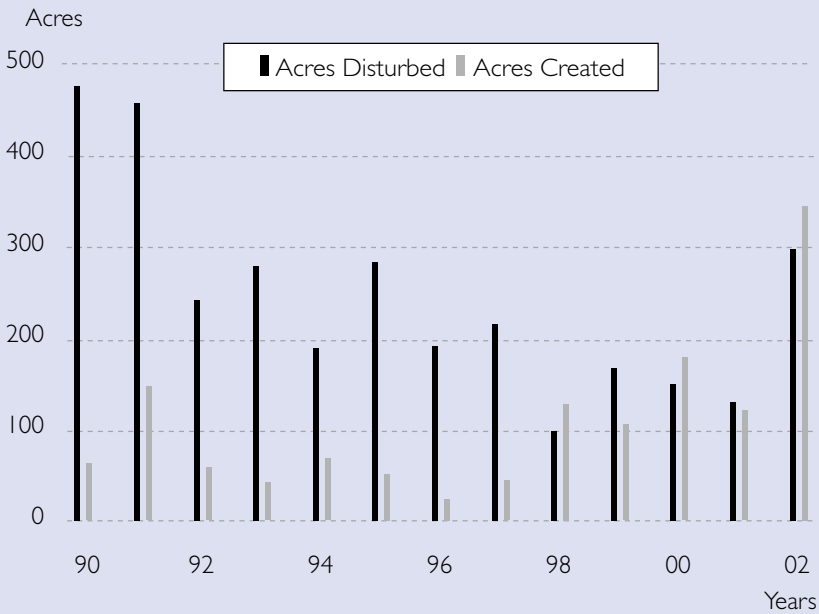
# Farmland

*Farmland preservation came to a virtual halt in 2003, with no farms preserved.*

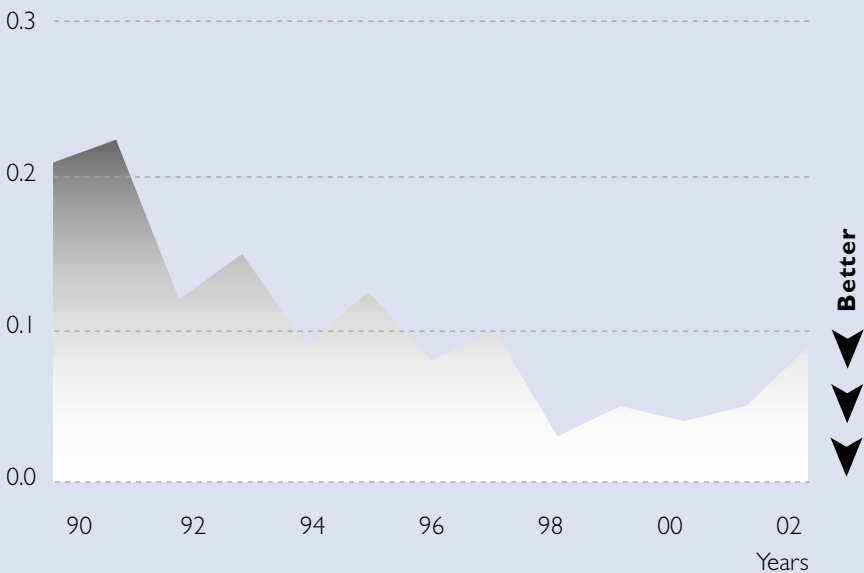


## Inland Wetlands

*After fairly steady improvement from 1990 through 1998, disturbances of inland wetlands have become greater over the last four years.*



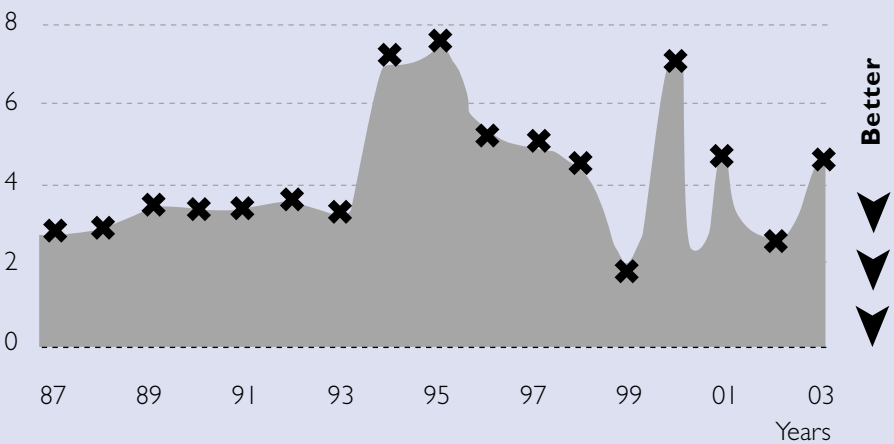
Acres of Inland Wetlands Affected by the Average Permit Issued by DEP & the 170 Municipal Wetlands Agencies



## No Swimming at the Beach

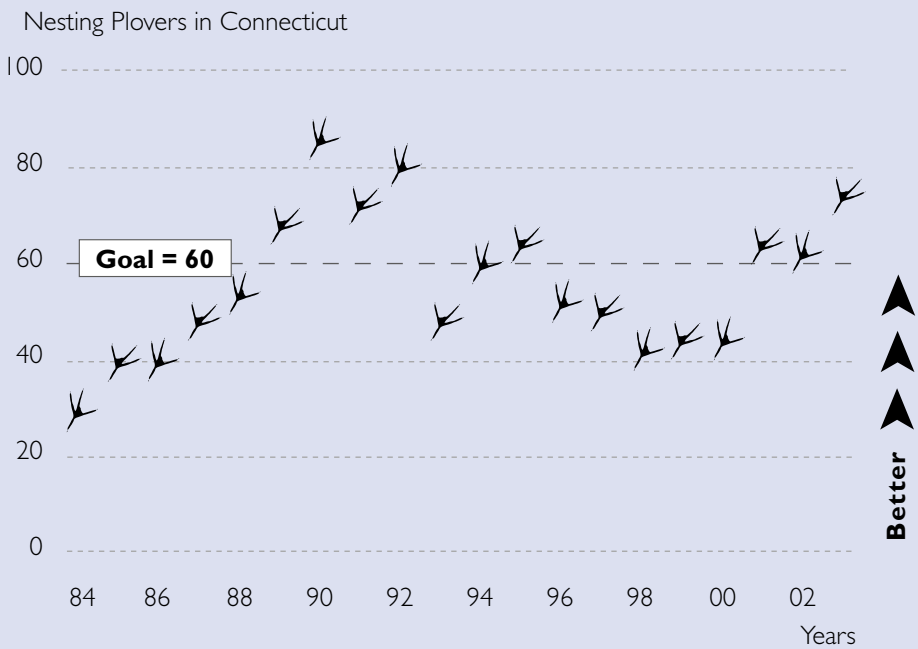
*Many coastal towns and cities must close their beaches after heavy rains because of the pollutants that are washed into Long Island Sound.*

Average Town Closed Its Beaches This Many Days



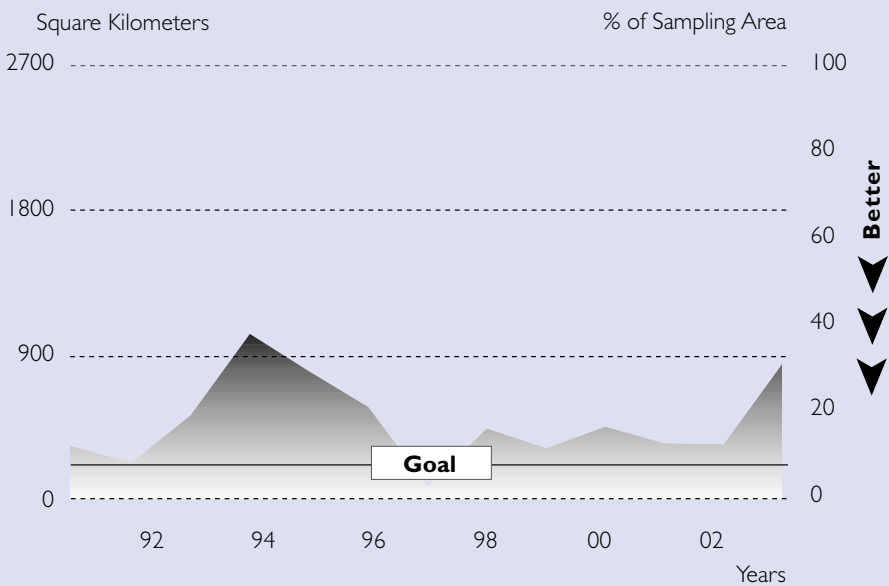
## Piping Plovers on the Beach

*These small shorebirds found two new areas of suitable beach habitat (in Stratford and Milford) in 2003.*



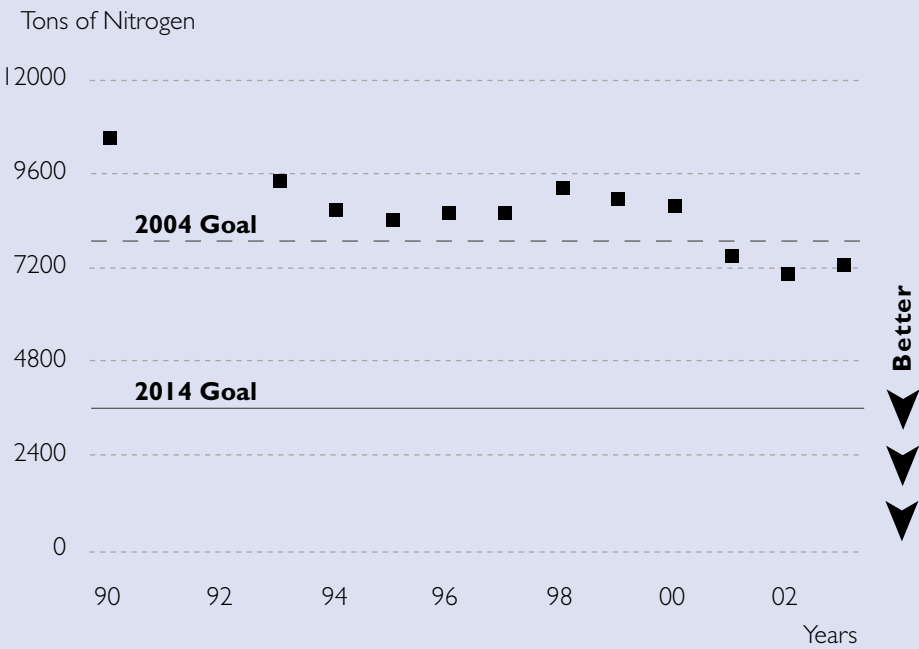
## Low Oxygen in Long Island Sound

*An expansive bloom of brown algae in the western end of the Sound in 2003 led to more hypoxia (oxygen levels too low to support aquatic life).*



## Nitrogen in Long Island Sound

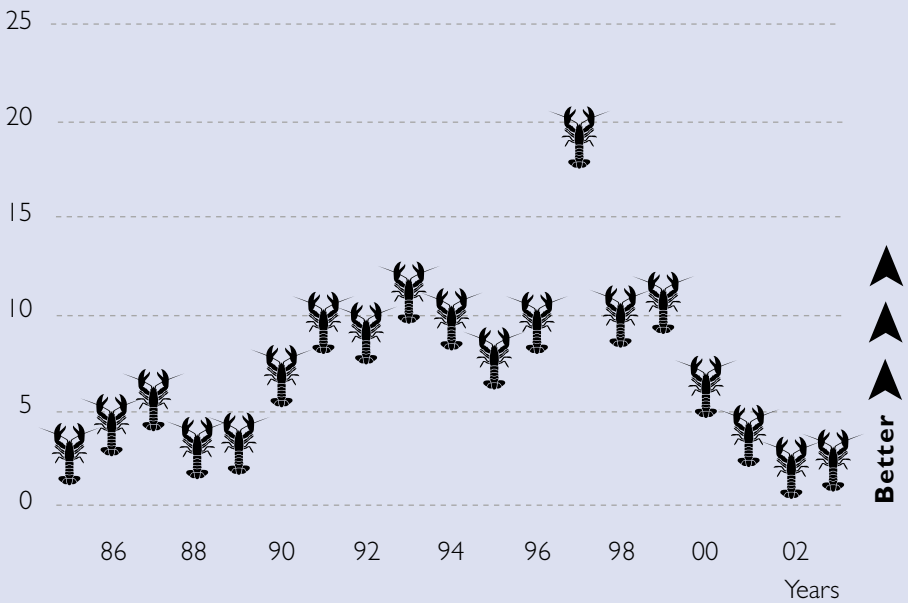
*Connecticut's campaign to reduce nitrogen from sewage treatment plants and large factories is going well.  
Next up: runoff from cities and lawns.*



# Lobsters

*The lobster population seems to have stabilized in 2003, possibly due to cooler temperatures.*

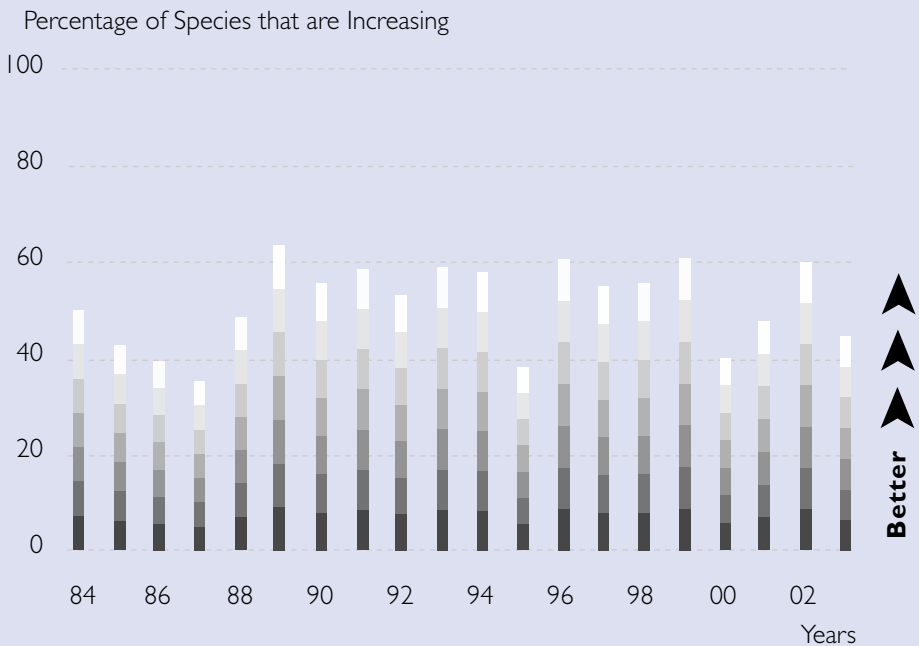
Number of Lobsters Caught per Tow in Research Vessel Nets





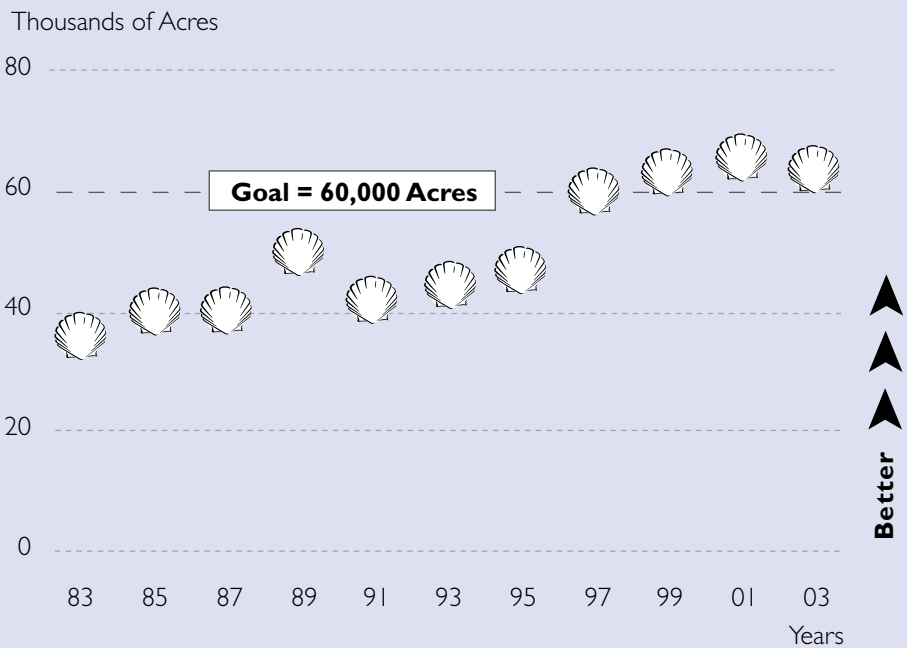
## Seafood Sampler

*About half of the 40 marine species sampled in Long Island Sound have growing populations. The others are declining. This figure fluctuates somewhat each year, and the reasons are not always known.*



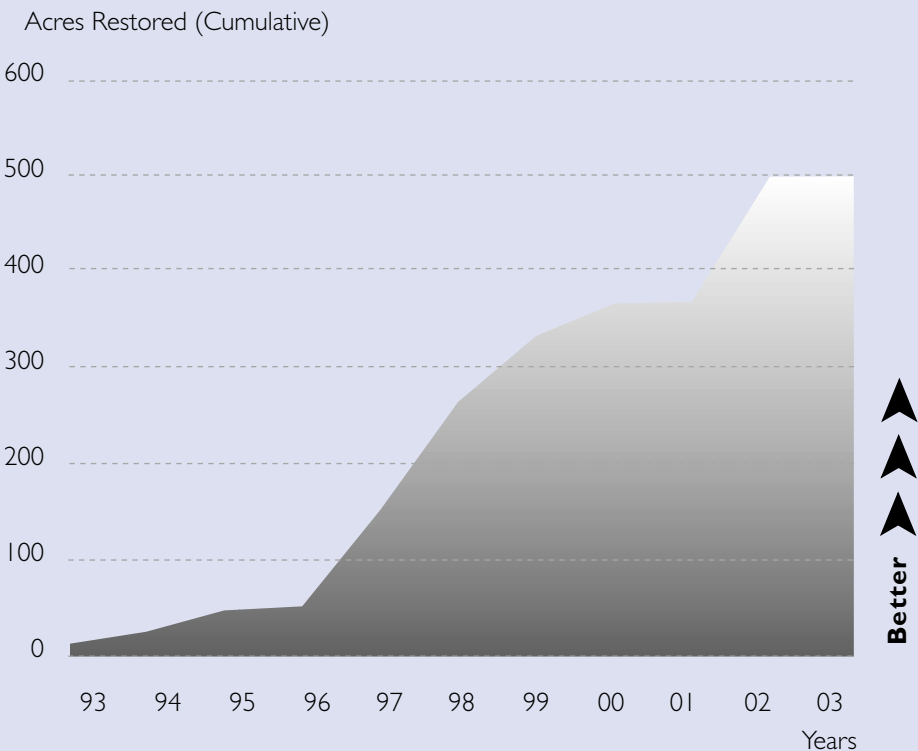
## Clean Shellfish Beds

*The decrease in 2003 reflects a moratorium on new leases.*



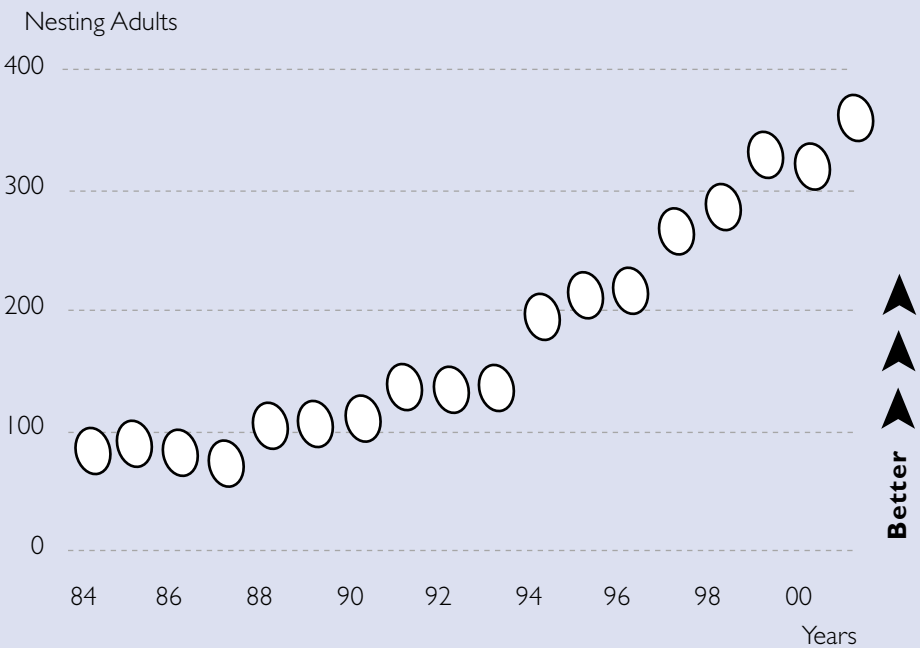
## Reviving Tidal Wetlands

*Each year, less than one acre of tidal wetlands is lost to permitted development (not shown here), while an average of 50 degraded acres are restored.*



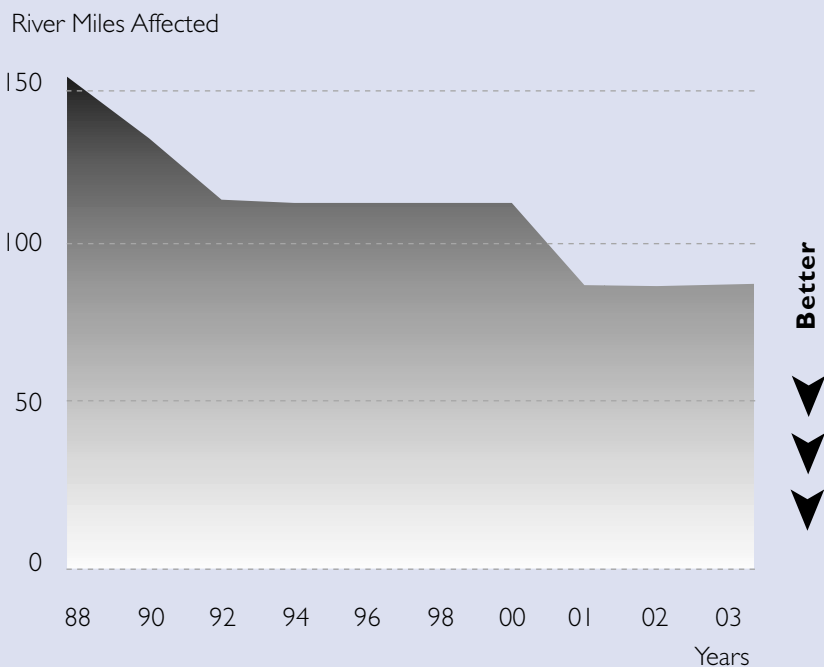
# Ospreys

*Connecticut's comeback of these large birds of prey was made possible by bans on specific chemicals, and has been aided by construction of predator-proof nesting platforms.*



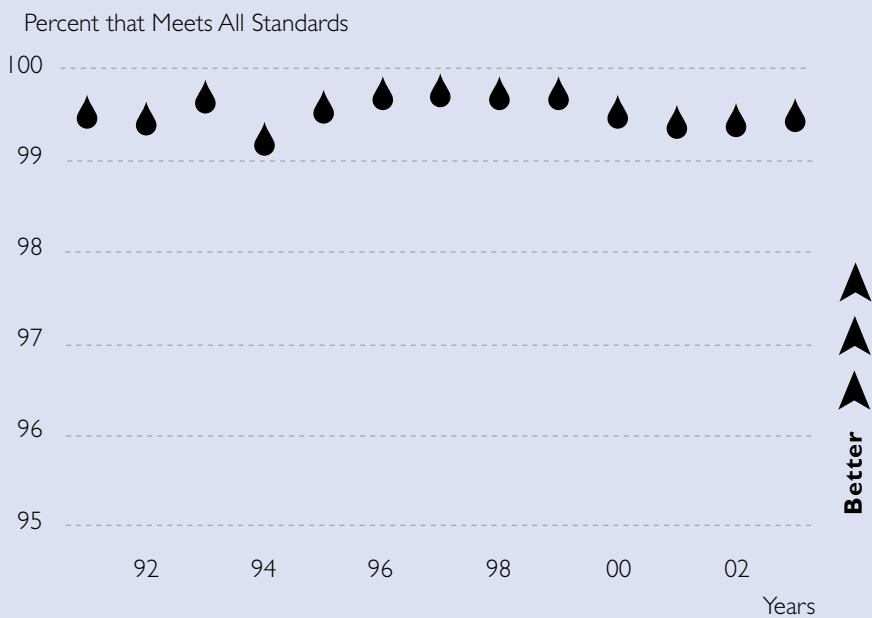
## Sewage Overflows

*When it rains, raw sewage spills from cities' sewer systems because they were built with storm and sanitary sewers combined. Gradually, cities have been separating their sewer systems to prevent these overflows.*



# Drinking Water

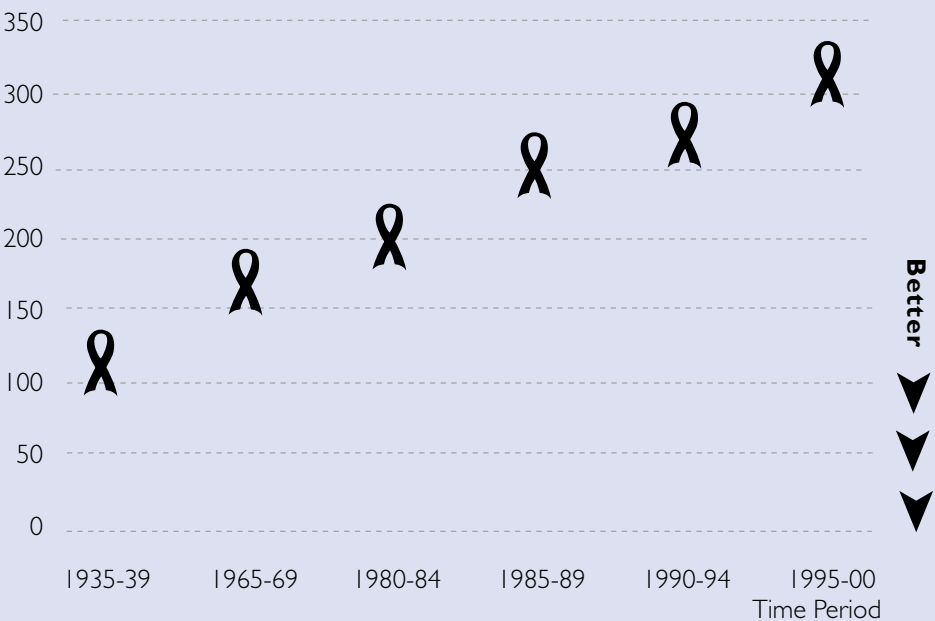
*All large water companies delivered drinking water that met all standards in 2003, though a number of smaller systems reported problems.*



## Breast Cancer in Connecticut

*Connecticut has the fourth highest incidence of breast cancer among the 50 states.*

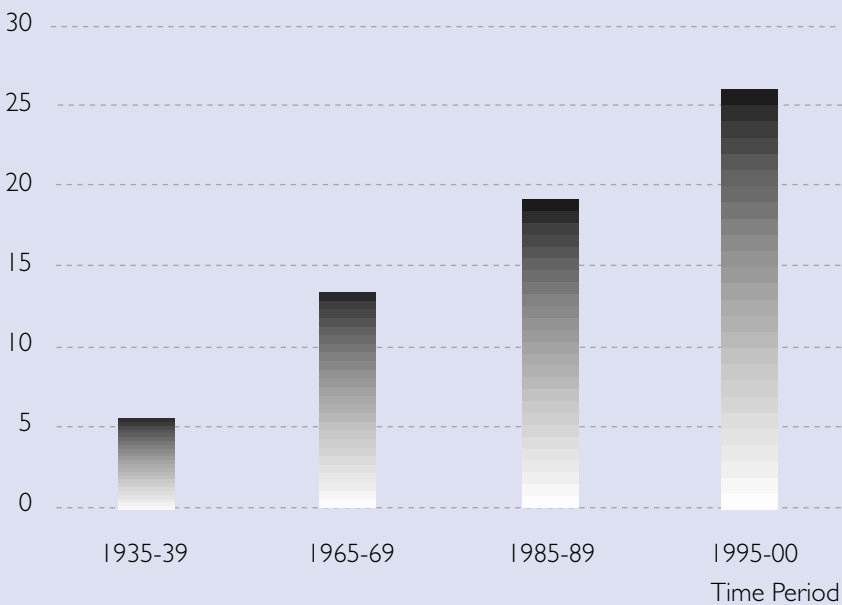
Number of New Cases per Year per 100,000 Women Aged 50 to 54



## Non-Hodgkin's Lymphoma

*The reasons for the marked increase in this cancer are not well understood, but some reports cite exposure to certain fertilizers, pesticides and other chemicals as potential factors.*

Number of New Cases per Year per 100,000 Residents Aged 50 to 54

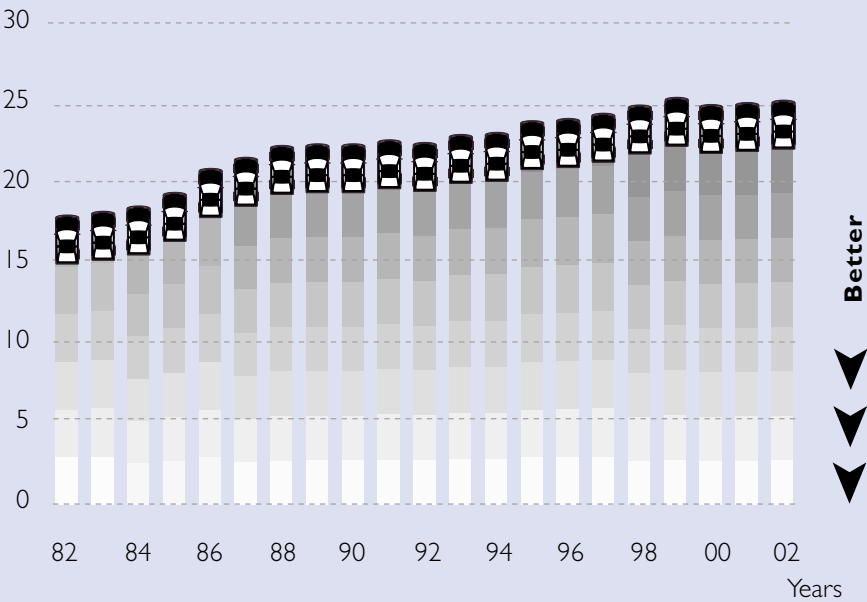




## Driving our Cars

*The average Connecticut resident drives more miles every year.*

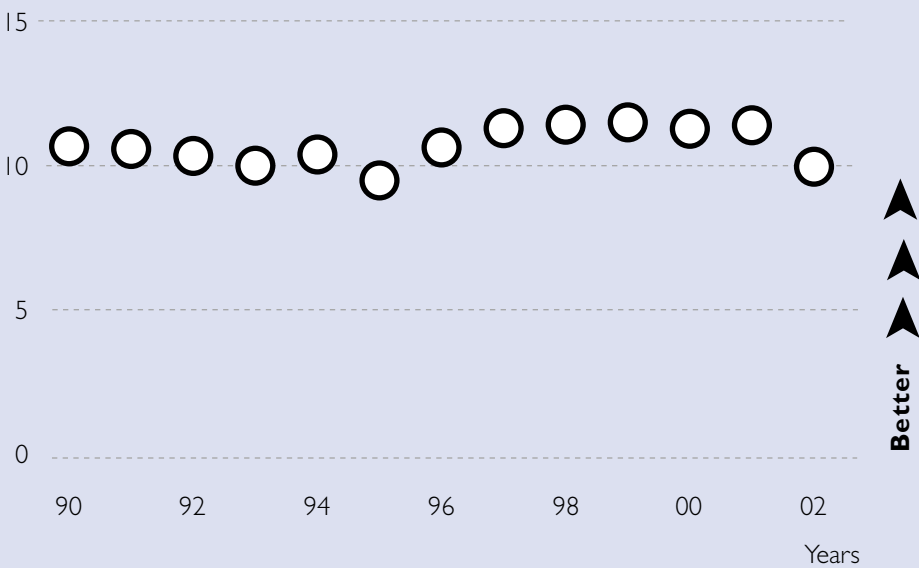
Miles per Day per Person



## Taking the Bus

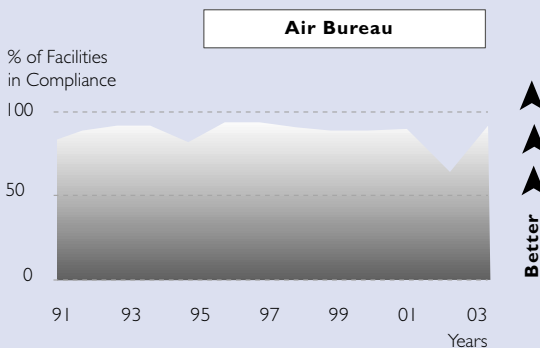
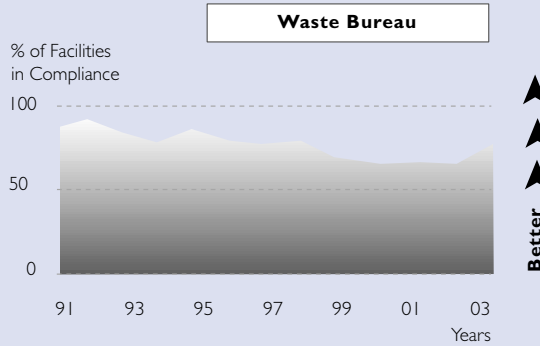
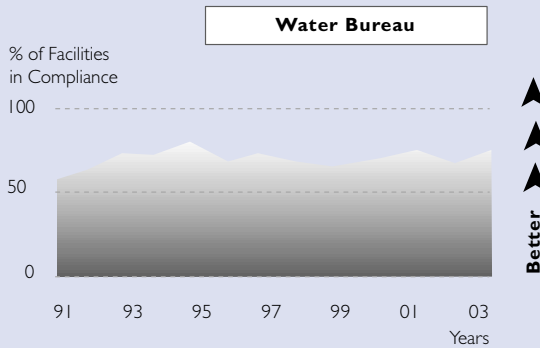
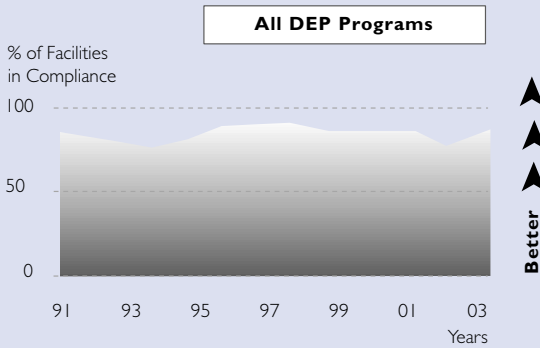
*Bus ridership declined 13% in 2002.*

Bus Trips per CT Resident



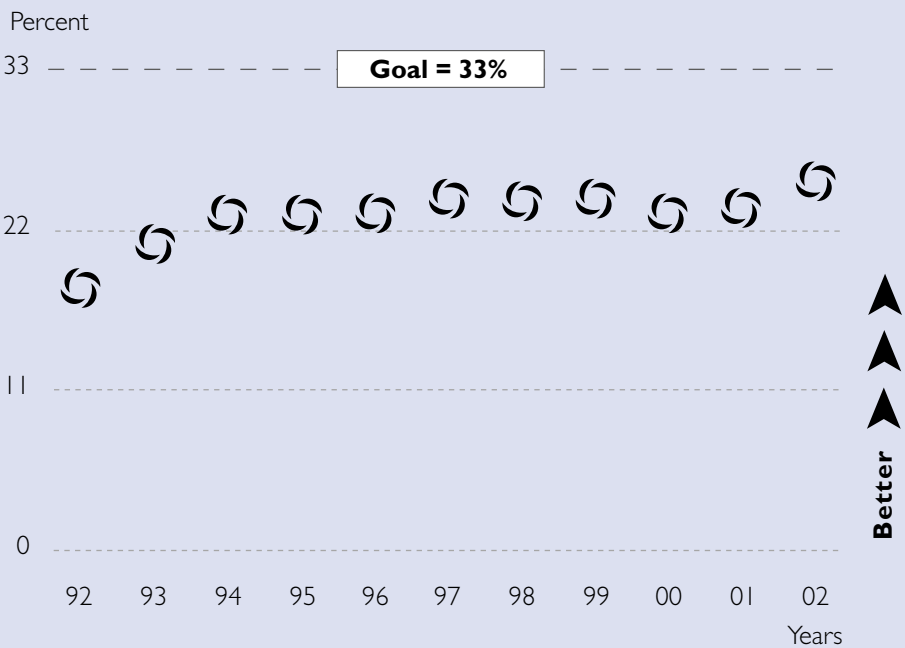
## In Full Compliance

*In 2003, DEP inspectors found about 89% of facilities in compliance with pertinent regulations.*



# Recycling

*The apparent upturn in 2002 was mostly the result of improved accounting that now includes materials that were previously overlooked.*



## *PART II: Details*

The previous section of this report shows important environmental trends at a glance. The following pages are meant to give the reader a more complete understanding of the significance of each indicator and the sources of the data used.

### *Air*

---

#### *Good Air Days (page 4)*

On a Good Air Day, every monitoring station in the state records satisfactory air quality. "Satisfactory air quality" is defined here as air that meets the health-based ambient air quality standards for all of the following six pollutants: sulfur dioxide, lead, carbon monoxide, particulates, nitrogen oxides, and ground-level ozone. Connecticut's goal is to have air that meets all health-based standards 364 days a year by the year 2010. (The official goal is not 365 days per year because the state can have one bad air day per year and still meet federal requirements.) Violations of the health-based air quality standards have been eliminated for all pollutants except ground-level ozone, which is created when nitrogen oxides and volatile organic compounds react in the presence of sunlight. Motor vehicles remain a major source of ozone-forming emissions despite improvements in tailpipe standards. Much ground-level ozone originates in states to Connecticut's west. While 2003 saw the greatest number of good air days since the 1980's, it is difficult to discern a consistent trend that will lead Connecticut to its goal of clean air every day.

#### *Clearing the Air (page 5)*

Six air pollutants -- sulfur dioxide, lead, carbon monoxide, particulates, nitrogen oxides, and ground-level ozone -- are measured across the state by the DEP. At the end of every year, the average level of each pollutant is expressed on a numerical scale, where zero equals no pollution and 100 represents the "unhealthful" level of the specified pollutant. The Council takes the annual numbers for each of the six pollutants and averages them to yield the single index value on this graph. Levels of lead in the air have dropped so low that they no longer register in this indicator. Most of the improvement since 1987 is due to reductions in carbon monoxide, sulfur dioxide, and particulate emissions. In 2003, the levels of all six pollutants improved slightly.

## *Farm, Forest, Wetland*

---

### *Preserved Land (page 6)*

In 1998, Governor John Rowland declared a goal of conserving 21% of Connecticut's land area by 2023. P.A. 99-235 reinforced this goal. The graph titled "Combined Acreage of Preserved Land" displays progress toward the 21% goal. Current acreage of each type of land is shown in the chart labeled "Acres of Conserved Land by Ownership." The types of land are:

- state-owned forests, parks, and wildlife areas
- Class I and II watershed lands owned by water utilities
- estimated municipal open space
- estimated nonprofit lands (land trusts, The Nature Conservancy, etc.)
- federal conservation land.

In 2002, there was a shift in land ownership from water utilities to the state when the DEP purchased 5,471 acres of Class II and III water company land to ensure its preservation. Conservation easements were purchased on 9,025 acres of Class I land. In 2003, land preservation continued at a pace that keeps Connecticut on track toward its 2023 goal.

### *Forest (page 7)*

Connecticut's goal is to conserve forests for multiple uses, which only can be accomplished on parcels of sufficient size. Most forest is owned in small parcels, which often have limited value for wildlife, wood production, and other uses. To be eligible for property-tax benefits under Public Act (P.A.) 490, a landowner must own 25 or more acres of forest. Though imperfect, this indicator shows the state's most beneficial forests, which are state forests and private tracts larger than 25 acres. The apparent upward trend in forest acreage during the 1980s was believed to be a product of property revaluations, which prompted many landowners to enroll their land in P.A. 490 for the first time. Surveys of forest landowners show an average age of more than sixty years; the realities of inheritance will probably result in significant break-ups of large land holdings, which might be one important cause of this indicator's negative turn since 1993. In 2002, thousands of acres of forested land were shifted from private water utility ownership to state ownership. In 2003, a slight increase in acres in the P.A. 490 program may be attributable to more landowners looking for tax relief, and state forests gained almost 1,000 more acres from acquisitions throughout the state.

## *Farmland (page 8)*

The graph titled "Connecticut Farmland" illustrates the total acreage of land in Connecticut farms, as counted by the U.S. Department of Agriculture (DOA). The inventory is conducted quinquennially. The next inventory is expected to reflect a loss of several thousand acres. To preserve land for future agricultural use, the state DOA purchases the development rights to farmland (from volunteer sellers only). This keeps the land in private ownership with severe restrictions on future nonagricultural development. The number of "Acres Preserved by the CT Department of Agriculture" has slowed significantly. Seven farms were preserved in 2002 through the DOA's Farmland Preservation Program. No farms were preserved in 2003, though funding to preserve a few was approved in early 2004.

## *Inland Wetlands (page 9)*

The "Acres Disturbed and Created" graph shows the acreage of wetlands disturbed by development and the number of those acres replaced by human-made wetlands. "Disturbed" wetlands are those affected directly by human activity, which can range from total destruction (when the wetlands are filled and built upon) to conversion from one type to another (as, for example, from shallow marsh to open water). No attempt is made here to evaluate the success of the created wetlands or their value relative to the natural wetlands altered. There is no goal for wetlands conservation. Inland wetlands are estimated to cover about 450,000 acres, or about 15% of Connecticut's surface. Some of the ups and downs in wetlands loss since 1990 are directly related to changes in the economy and the number of applications received. However, the graph showing the Area of Inland Wetlands Affected by the Average Permit Issued indicates that wetlands agencies also became more conservative, a trend that reversed in 1999. Municipal wetland agency members and staff have many more opportunities for training than they did in 1990.

## *Sound and Shore*

---

### *No Swimming at the Beach (page 10)*

Connecticut's goal is to eliminate beach closings caused by discharges of untreated or poorly treated sewage, the most common cause of elevated bacteria levels. After rain storms, runoff and overflows from combined sanitary/storm sewers are presumed to contaminate the water, prompting towns to close beaches automatically as a precaution. The Council adds up the total number of days that cities and towns close beaches, and calculates an average for each year. Yearly variations are products of rainfall patterns and incidents such as sewer-line ruptures. The dry summer of 2002 brought far fewer closings, but significant rainfall in 2003 elevated the number of closings.

### *Piping Plovers on the Beach (page 11)*

Piping plovers are thrush-sized shorebirds that nest on sandy, vegetation-free beaches, often with least terns. Human intrusion, storm tides, and predators frequently destroy nests. Nesting adults are counted and in most cases protected every spring by the DEP and volunteers working with The Nature Conservancy. The piping plover's status is "threatened." The protections afforded these plovers also benefit other nesting species. Since protection and monitoring efforts began in 1984, nesting success has improved, resulting in more returning adults in subsequent years. Yearly variations can occur when adult birds move from one state to another. Diminishing habitat and more disturbances are forcing many birds to nest within the vegetation zone and below the storm tide line where predation and washout took a toll in 2002. There was an increase in plovers in 2003, with the birds nesting in two locations that had not been used in recent years.

### *Low Oxygen in Long Island Sound (page 12)*

Hypoxia is the condition in the water when oxygen levels are too low to support desirable forms of life. (For this indicator, hypoxia is defined as less than or equal to 3 mg/l of dissolved oxygen.) Hypoxia occurs when nitrogen stimulates excessive growth of aquatic plants, which die and are consumed by oxygen-using bacteria. Weather greatly influences hypoxia, making year-to-year changes less important than long-term trends. Connecticut's goal is to eliminate the effects of hypoxia. All of the hypoxia has occurred in the western two-thirds of the Sound. Year-to-year fluctuations reflect weather patterns. Mild winters followed by relatively cool summers result in fairly uniform water temperatures and less hypoxia in the depths. The second largest area of hypoxia was observed in 2003, and scientists believe it is attributable to an expansive brown algae bloom in the western end of the Sound, which was most likely fueled by a large amount of rain and nitrogen in the resulting runoff early in the summer.

### *Nitrogen in Long Island Sound (page 13)*

The amount of nitrogen dumped into Long Island Sound and its tributaries affects oxygen levels in the water. Overall, Connecticut's share of the total nitrogen pollution in Long Island Sound is about one-third, and New York's is two-thirds. In April 2001, the federal Environmental Protection Agency approved the New York and Connecticut joint plan for implementing a Total Maximum Daily Load (TMDL). The TMDL is the maximum amount of pollutants that can be discharged while still allowing water quality standards to be attained. Connecticut's target for 2014 is 3836 tons (or less) per year. This indicator tracks the nitrogen discharged to the Sound and major rivers by 79 sewage treatment plants, 3 large coastal industrial facilities, and a group of industrial sources in the Naugatuck River watershed. Connecticut's investments in nitrogen-removal technology have been successful. The goal for 2004 was met three years ahead of schedule.



### *Lobsters (page 14)*

The lobster is the second most economically important marine species in Connecticut (behind oysters). This industry supports the highest number of commercial fishermen. Changes in the lobster population might indicate changes in habitat quality. The DEP samples lobster populations every spring by towing nets from a research vessel at randomly selected sites throughout Long Island Sound. The population is still near average despite the sharp decrease in recent years. Researchers are focusing on a combination of four possible causes for the downturn: disease and immune response, changes in water quality, changes in climatic conditions, and human impacts to the Sound. Cooler temperatures in 2003 seem to have allowed the lobster population to stabilize.

### *Seafood Sampler (page 15)*

The DEP samples marine fish and invertebrates every spring and fall by towing nets from a research vessel. This indicator includes lobster, squid, and 38 species of fish and shows general trends in their collective populations. In 2003, about half of these 40 species were above their long-term averages, which means they are increasing over the short term, while the remaining species are declining. Scientists are unsure of the reasons behind the fluctuations of the last few years.

### *Clean Shellfish Beds (page 16)*

Connecticut's goal was to have 60,000 acres open by the year 2000, which is far fewer acres than were open a hundred years ago. The primary impediments to opening more acres are the presence of sewage discharges and the need to conduct frequent monitoring to satisfy federal health-assurance requirements. Beds are counted as open when they are clean enough and monitored sufficiently. The dramatic increase in 1997 was attributed largely to a decade-long increase in the commercial value of Connecticut's harvest, which prompted investments in expansion. Expansion has been a cooperative venture of industry and state government. Water quality and monitoring improvements led to modest expansion in 1998 and 1999, even as the industry saw oyster stocks depleted by disease in 1998. The expansion of shellfish beds in 2000 reflects even greater interest in the oyster industry as some lobstermen, responding to declining lobster populations, switched to harvesting oysters. The slight decrease in 2003 is a reflection of a 15-month moratorium on new leases, and fluctuations in the acreage of private beds.

### *Reviving Tidal Wetlands (page 17)*

Restoration includes work performed by the state as well as by coastal landowners required by the DEP to restore wetlands as conditions of their permits. Restoration acreage is counted only where tidal flow has been restored permanently, and does not include minor enhancements or vegetation management. Tidal wetlands are estimated to cover 17,500 acres of Connecticut, though no precise inventory has been completed. Connecticut's goal is to produce net increases in tidal wetlands acreage and function. In 2002, more than 100 acres were restored, mostly associated with the Connecticut and Quinnipiac Rivers. Restoration has been outpacing development: with the exception of 1995, less than one acre of tidal wetlands has been lost each year to permitted development.

## *Ospreys (page 18)*

Ospreys are fish-eating birds of prey that live throughout the world. Locally, they nest mostly along the shoreline of eastern Connecticut, with potential to nest inland along rivers and large lakes. They require ample food supply, secure nesting sites, and an environment low in certain chemicals, notably chlorinated hydrocarbons. The osprey's status in Connecticut is "special concern." Nesting adults are counted each year by the DEP. The osprey continues to rebound from its low point in the 1960s. Now, with fewer chlorinated hydrocarbons in the food chain, and after years of cooperative ventures to erect nesting platforms along the coast, nesting success continues at a rate sufficient to sustain positive growth. Several factors have led to the highest number of breeding ospreys in recent history: a record number of fledglings in recent years, installation of new predator guards on many nesting platforms, and a surge in breeding success at an area considered to be the stronghold of Connecticut's osprey population.

## *Rivers and Reservoirs*

---

### *Sewage Overflows (page 19)*

In fourteen Connecticut cities and towns, sanitary sewers were built in combination with storm sewers. During storms, these systems carry more water than their treatment facilities can handle, and a combination of storm water and untreated sewage overflows directly to the rivers and Long Island Sound. Several of these combined sewer systems have been completely or partly separated since 1990, reducing the impact of untreated sewage on rivers. The improvement in 2001 can be attributed to the completion of projects in the towns of Waterbury and Naugatuck. It also reflects greater precision in the DEP's data collection and analysis. Connecticut's goal is to eliminate the effects of raw sewage discharges from combined sewer systems. Progress is slow because of the extraordinary expense of separating the sewers.

### *Drinking Water (page 20)*

Every public water utility submits monthly quality reports to the Department of Public Health. This indicator shows the percentage of monthly reports that show full compliance, after weighting the reports to account for the number of people each utility serves. Though problems persist, they occur most frequently with small systems serving relatively few households. This indicator would show greater fluctuations if the larger systems failed to deliver good water. While no major water companies reported contamination problems in 2003, numerous smaller systems experienced problems. Nonetheless, the compliance rate improved slightly since 2002.

## Human Health

---

### *Breast Cancer in Connecticut (page 21)*

Number of new cases per year per 100,000 women aged 50 to 54

Of every 100,000 women in the state aged 50 to 54, a number will discover each year that they have breast cancer. That number is depicted in this graph. To minimize year-to-year fluctuations, groups of years are averaged together. (In other words, each data point on the graph shows the number of new cases in a single year, but that year is actually the average of five years.) While some breast cancers are linked to genetic factors, most are associated with non-genetic factors including diet, reproductive history, lifestyle, and external agents. There are numerous hypotheses connecting certain chemicals to breast cancer. Other hypotheses point to different environmental causes, including nighttime lighting and proximity to nuclear reactors. These factors, if significant, do not appear to be as important statistically as a woman's own reproductive history, but it is important to note that breast cancer rates vary greatly in different parts of the country. Among the fifty states, Connecticut has the fourth highest incidence of breast cancer. (Source: American Cancer Society) There is little doubt that some of the increase since 1980 is attributable to better detection methods. But better detection, which might save lives by allowing for earlier treatment, cannot be responsible for all of the apparent increase in new cases.

### *Non-Hodgkin's Lymphoma (page 22)*

Number of new cases per year per 100,000 residents aged 50 to 54

Non-Hodgkin's lymphoma is a cancer of the lymphatic system. It begins in the lymphoid tissue which contains lymphocytes, white blood cells that help the body fight infections. Lymphocytes travel throughout the body and can carry abnormal lymphocytes, spreading the cancer. The data for this indicator are from the Department of Public Health's Tumor Registry, which records all known cancer cases in the state. Non-Hodgkin's lymphoma has increased markedly since recordkeeping began. The reasons are not well understood, though the rise of Acquired Immune Deficiency Syndrome (AIDS) since the 1980s accounts for some cases. Several studies also cite environmental factors, including exposure to certain fertilizers, pesticides, and chemicals.

## *Leading Environmental Indicators...*

---

...illustrate trends in behavior or practices that can be expected to influence the condition of tomorrow's air, water, land and wildlife.

### *Driving Our Cars (page 23)*

Driving a car is probably the most environmentally harmful activity a Connecticut resident will engage in. Trucks and the increasingly popular sport utility vehicle cause even greater damages. Impacts are direct (air pollution, oil leakage, etc.) and indirect (stimulating demand for new roads). The Department of Transportation (DOT) estimates total miles driven each year in Connecticut. Every year until 2000, the average Connecticut resident drove more miles than the previous year. The reasons are complex and include the fact that most new development is accessible only by car. In 2002, there was again a slight increase in miles driven by the average resident.

### *Taking the Bus (page 24)*

Riding a bus is just one alternative to the negative environmental consequences of driving a car. Ridership data are collected by the Department of Transportation. There was a 13% decline in bus ridership in 2002 from 2001. Improvements prior to 2002 were probably the product of better bus routing and the successful efforts of some companies to encourage transit use by employees.

### *In Full Compliance (page 25)*

This indicator shows the approximate percentage of inspections performed by the DEP that found the inspected facilities in full compliance with pertinent environmental laws and regulations. The downturn in 2002 was due to a large number of violations in one air quality program (Stage II Vapor Recovery at gas stations). Most other programs in the Air Bureau showed compliance rates greater than 90%, but more than 1,000 gas stations had Stage II violations, characterized by the DEP as mostly minor labeling and record-keeping deficiencies. Short-term downturns might not reflect serious problems if the long-term trend is toward full compliance. Compliance rates were up in 2003 in all major bureaus of the DEP.

### *Recycling (page 26)*

The General Assembly established a goal of reducing and recycling 40% of Connecticut's municipal solid waste stream by the year 2000; the DEP has calculated that this would require 33% of the waste to be recycled (with the other 7% disappearing through waste reduction). The actual numbers shown in this graph are probably low, as some recycled materials, such as batteries and bottles returned for deposit, cannot be counted. In 2002, the DEP changed the way its data are calculated. In the past, numbers were based solely on annual municipal recycling reports. Now they are based on recycling facility market reports as well as the municipal reports. This more accurate data probably accounts for the increase in the statewide average.

## *Activities of the Council on Environmental Quality in 2003*

**Reporting to the public:** The Council released its annual report on the condition of Connecticut's environment in July 2003, thirty years after the Council's first such report was delivered to Governor Thomas Meskill. With its continued use of numerical environmental indicators, the 2003 report documented the most important long-term trends in the state's air, water and wildlife. Considerable coverage by the news media helped the public to understand the extent of the slow, steady progress the state has made, as well as the areas where goals remain elusive.

**Listening to the public:** In addition to its monthly meetings, the Council holds public forums in different regions. The Council invites the general public and local officials to speak frankly about what they view as the successes and failures of state environmental policies in their area. In October, the Council held such a forum in Groton. As in all forums held across the state since 1997, the topic most on peoples' minds was the loss of open space and the need for its protection. The list of topics raised in Groton includes:

### Open space

*need for continued funding, attention to some specific local needs*

### State-municipal communications

*state could be of more assistance to towns and be more responsive*

### Inland wetlands

*local commissions need more technical assistance; vernal pools need legal protection after the recent Supreme Court decision*

### Local zoning / smart growth / over-development

### Agricultural land / maintain Department of Agriculture

### Drinking water reservoirs

*existing regulations inadequate; specific incursion into watershed lands*

Transportation / congestion / Route 11 / casino traffic

Natural resource inventories

*should be conducted statewide well in advance  
of specific development proposals*

Development on steep slopes

*affecting previously “non-buildable” areas*

Airport impacts

Water quality / stormwater runoff

Long Island Sound / estuaries

Nuclear fuel rods

The Council uses this testimony – along with all of the comments and complaints it receives throughout the year – to help identify the greatest deficiencies in state environmental policies, priorities for further investigations, and successful solutions.

## CEQ MEMBERS

**Donal C. O'Brien, Jr. (Chairman)** Resident of New Canaan. Original charter member of Connecticut Council on Environmental Quality, 1971. Retired partner in the law firm of Milbank, Tweed, Hadley & McCloy. Former member, CT Council on Environmental Quality (1971-1976). Former member, CT Fish and Game Commission (1971-1972). Chairman, Governor's Task Force on Hunting and Public Safety (1992-1993). Chairman Emeritus, Board of Directors, National Audubon Society. Board of Directors, Waterfowl Research Foundation. Chairman, Board of Directors, Atlantic Salmon Federation. Founder, Director, Connecticut League of Conservation Voters. Former Vice-Chairman, Board of Governors, The Nature Conservancy. Former President, International Council for Bird Preservation. Founder and Chairman Emeritus, American Bird Conservancy. Chairman Emeritus, Quebec Labrador Foundation. Former Director/Trustee, Delta Waterfowl Foundation, CT Waterfowlers Association and Theodore Gordon Flyfishers.

**M. Howard Beach.** Resident of Simsbury. Member, Simsbury Conservation / Inland Wetlands Commission since 1980, Chairman since 1994. Member, Board of Directors, The Farmington River Watershed Association. Life Member and past Board Member, Simsbury Land Conservation Trust. Founding Member, Farmington Valley Biodiversity Project. Member, Town of Simsbury Open Space Committee. In 2004, completed a Masters Degree in Environmental Law at Vermont Law School.

**Kevin M. Case.** Resident of Winchester. Project Manager for the National Park Service National Rivers Program North. Past President, Rivers Alliance of Connecticut. President, Winchester Land Trust. Former Executive Director, Farmington River Watershed Association. Member, Farmington River Wild & Scenic Coordinating Committee. Co-chaired Instream Flow Subcommittee of the State Water Planning Council.

**Susan D. Merrow.** Resident and former First Selectman of East Haddam. Member, Northeast Advisory Committee, Trust for Public Land. Member, Sierra Club National Political Committee. Former President, CT Conference of Municipalities. Former President, National Board of Directors, Sierra Club. Author, *One for the Earth: Journal of a Sierra Club President*. Former Executive Director, Common Cause in CT. Former Co-Chair, CT Greenways Committee.

**Thomas F. Harrison.** Resident of Avon. Partner in the Hartford-based law firm of Day, Berry & Howard LLP. Member and Chairman, Avon Board of Finance. Board of Directors, Connecticut League of Conservation Voters. Executive Committee and Past Chairman, Environmental Law Section, CT Bar Association. Board of Directors and Chair, CT Chapter, Air & Waste Management Association. Board of Directors, National Audubon Connecticut. Former Member, Advisory Council on the Environment, MetroHartford Chamber of Commerce. Environmental Professionals Organization of CT. Small Business Compliance Advisory Panel, CT Department of Environmental Protection. CT Environmental Forum. Adjunct Instructor of Environmental Law, Rensselaer Polytechnic Institute (Hartford Graduate Center). Former Member, Avon Inland Wetlands Commission.

**Susan B. Mendenhall.** Resident and Mayor of Ledyard and Four-Term Town Councilor. Member, Land Use/Planning/Public Works Committee. Former Member, Finance Committee. Council Liaison to Inland Wetlands and Watercourses Commission, Zoning Commission, Ledyard Emergency Planning Council. Former Council Liaison to Senior Citizens Commission, Economic Development Commission, Board of Education. Past Member, Board of Directors of The Connecticut Institute for Municipal Studies. Member, Property Tax Reform Commission. Former Stock Trader, Investment Corporation of Virginia. Former Tax Consultant. Member, Navy League.

**Earl W. Phillips, Jr.** Resident of Middle Haddam, village of East Hampton. Partner with the law firm of Robinson & Cole LLP and Chair of its Environmental Practice. Executive Committee, Environmental Section of the CT Bar Association. Member, past and present DEP Advisory Committees, including E-2000, Waste, and Water. Executive Steering Committee, CBIA Environmental Policies Council and Chairman of its Hazardous Waste Section. Multiple publications, including: *Brownfields Law and Practice: The Cleanup and Redevelopment of Contaminated Land*, CT Chapter (Matthew Bender), *Environmental Law Practice Guide*, Connecticut Chapter (Matthew Bender). Adjunct Instructor of Environmental Law, Wesleyan University, University of Connecticut, and Rensselaer Polytechnic Institute (Hartford Graduate Center). Chairman, Environmental Section, National Institute of Municipal Law Officers.



**Ann H. Sherwood.** Resident of Kent. Paralegal in the law firm of John V.A. Murray, P.C. Member, Board of Managers, Appalachian Trail Conference. Connecticut Coordinator, Appalachian Trail Conference Land Trust. Member, Trails Committee, Connecticut Chapter, Appalachian Mountain Club. Registered advocate, Office of Protection and Advocacy For The Disabled. Registered activist, Americans For Our Recreation and Heritage and the Appalachian Mountain Club. Member, Philips Academy Alumni Council. Former board member and President, Connecticut Association of Paralegals, Inc. Founding board member and past President, Springdale Neighborhood Association. Former Clubwide Conservation Chairperson, Appalachian Mountain Club (1998-2000). Former member, Conservation Program Committee, Advisory Board to Board of Directors, Appalachian Mountain Club. Former Member, Advisory Board, Cornerstone Bank. Former Member, Corporation of United Way, Stamford.

**Wesley L. Winterbottom.** Resident of West Hartford. Professor and Coordinator of Environmental Science and Toxicology, Water Management and Wastewater Programs, Gateway Community College. Instructor of Environmental Issues, Eastern Connecticut State University; Fullbright China Seminars Abroad Program Scholar. Registered Professional Engineer. Diplomat, American Academy of Environmental Engineers. National Science Foundation Fellow Advanced Technology Environmental Education Center, University of Northern Iowa. ANSI/GETF Certified ISO 14000 Trainer. Faculty Advisor, Mt. Rainer National Park, Rocky Mountain National Park, Western Arctic National Parklands. Board Member, Northeast Partnership for Environmental Technology Education. President, Connecticut Consortium for Enhancing Learning and Teaching. Past-Director, Gateway Community College Center for Teaching Excellence.

## *COUNCIL ON ENVIRONMENTAL QUALITY*

The duties of the Council on Environmental Quality are described in Sections 22a-11 through 22a-13 of the Connecticut General Statutes. The Council is a nine-member board that works independently of the Department of Environmental Protection (except for administrative functions). The Chairman and four other members are appointed by the Governor, two members by the President Pro Tempore of the Senate and two by the Speaker of the House. The Council's primary responsibilities include:

1. Submittal to the Governor of an annual report on the status of Connecticut's environment, including progress toward goals of the statewide environmental plan, with recommendations for remedying deficiencies of state programs.
2. Review of state agencies' construction projects.
3. Investigation of citizens' complaints and allegations of violations of environmental laws.

In addition, under the Connecticut Environmental Policy Act (CEPA) and its attendant regulations, the Council on Environmental Quality reviews Environmental Impact Evaluations that state agencies develop for major projects. The Council publishes the Environmental Monitor (<http://www.ct.gov/ceq/monitor.html>), the official publication for state project information under CEPA.

## *COUNCIL MEMBERS 2003*

Donal C. O'Brien, Jr. (Chairman)  
New Canaan

M. Howard Beach  
West Simsbury

Kevin Case  
Winchester

Thomas F. Harrison  
Avon

Susan Mendenhall  
Gales Ferry

Susan Merrow  
East Haddam

Earl W. Phillips, Jr.  
Middle Haddam

Ann H. Sherwood  
Kent

Wesley Winterbottom  
West Hartford

Karl J. Wagener  
Executive Director

## Acknowledgments

The Council appreciates the work of its Executive Director, Karl Wagener, in drafting this report for review by the Council and preparing the final version for publication. Environmental Analyst Melissa Ryan assisted in this work. Interns also provided much support, and the Council notes the valuable contributions of Abby Sperrazza (Eastern Connecticut State University) and Hilary Peak (Wilson College). The Council also appreciates the assistance of the many people in the Departments of Environmental Protection, Agriculture, Transportation, and Public Health who provided data. The Council especially thanks the many citizens, businesses, and organizations who offered information and viewpoints to the Council throughout the year.

### Memo to Readers:

---

We would like to hear from you. Does this report give you the information on Connecticut's environment that you need? Is something missing?

Mail:

79 Elm Street, Hartford, CT 06106

Phone: 860-424-4000

(messages can be left 24 hours a day)

Fax: 860-424-4070

E-mail: [karl.wagener@po.state.ct.us](mailto:karl.wagener@po.state.ct.us)

Find up-to-date information about Council meetings, forums and reports throughout the year at [www.ct.gov/ceq](http://www.ct.gov/ceq). Sign up for e-alerts to receive announcements of all meetings, forums, publications, etc.



*Council on Environmental Quality*  
*79 Elm Street, Hartford, CT 06106*

*WWW.CT.GOV/CEQ*