CONNECTICUT ENVIRONMENT REVIEW

The Annual Report of the Council on Environmental Quality

The Council On Environmental Quality

The duties and responsibilities 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, bi-partisan board that functions independently of the Department of Environmental Protection (except for administrative functions). The Chairman and four other members are appointed by the Governor; two members are appointed by the President Pro Tempore of the Senate, and two by the Speaker of the House.

The Council's three primary functions include:

1) Submittal to the Governor of an annual report on the status of Connecticut's environment, with recommendations for remedying deficiencies in state programs,

2) Review of state agencies' construction projects, and

3) Investigation of citizens' complaints and allegations of violations of environmental laws.

In addition, under the Connecticut Environmental Policy Act and its attendant regulations, the Council on Environmental Quality reviews Environmental Impact Evaluations that state agencies develop for major projects; the Council must be consulted when disputes arise regarding any agency's finding that its project will not cause significant environmental impact.

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Karl J. Wagener
Executive Director

STATE OF CONNECTICUT

COUNCIL ON ENVIRONMENTAL QUALITY

January 30, 1991

The Honorable Lowell P. Weicker, Jr.
Governor of Connecticut
State Capitol
Hartford, Connecticut 06106

Dear Governor Weicker:

I am pleased to present the enclosed Annual Report of the Council on Environmental Quality for the year 1990. As in previous years, this report summarizes recent trends concerning Connecticut's environment in the seven page Connecticut Environmental Quality Index and offers an in-depth analysis of a major environmental issue -- the relationship of automotive air pollution to transportation policy and land use development patterns.

While Connecticut leads the nation in many important areas of environmental protection, including solid waste recycling and disposal, drinking water protection, and control of industrial air pollution, the serious problem of ground level ozone has not been solved. The primary source of this pollution is motor vehicle emissions, and while tailpipe emissions systems are improving, the number of vehicle miles logged in Connecticut increases significantly every year. People drive more each year because more of our destinations are accessible only by car. The continuous decentralization of employment, commercial, and residential areas makes Connecticut residents automobile-dependent.

Chronic air pollution, traffic congestion, and soaring gasoline consumption are but some of the economic and environmental costs of diffuse, inefficient land development. To this most intractable of all Connecticut's environmental problems, there is but one realistic solution: to integrate transportation with land-use planning at all levels of government. The hallmark of Connecticut's future landscape should be compact centers of development, employment and population connected by efficient transit systems.

The Council recognizes that the issues raised in this report are not capable of easy solutions but will require courage and new ways of examining old problems at all levels of government. In this respect, it seems fitting to present this report in your

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administration's historic first term in office. We trust you will find the report informative and its recommendations compelling.

In closing, the Council wishes to acknowledge the outstanding efforts of Executive Director Karl Wagener, and the Council's two capable research assistants, Steven Colangelo and Kathryn Kovacs, for their significant contributions to this report.

Very truly yours,

Gregory A. Sharp

Gregory A. Sharp
Chairman

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The annual Environment 2000 Progress Report, required by P.A. 87-142, will be published separately.

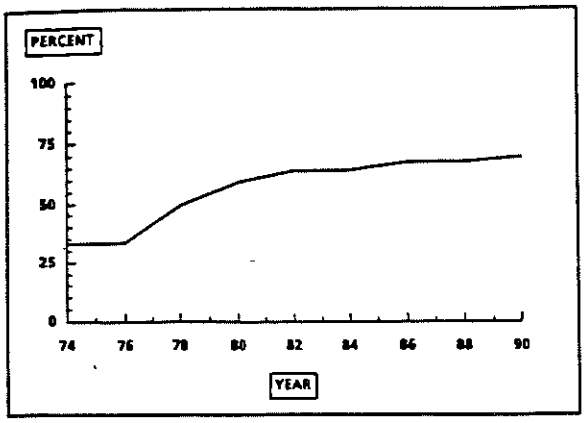
PART I

CONNECTICUT ENVIRONMENTAL QUALITY INDEX

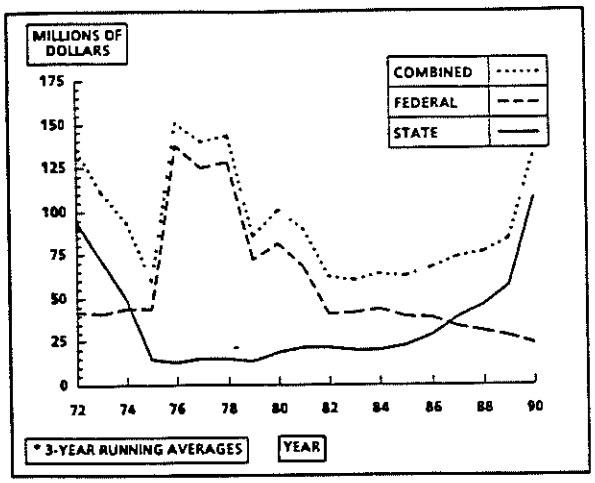
RIVERS, STREAMS and LAKES

LONG-TERM TRENDS

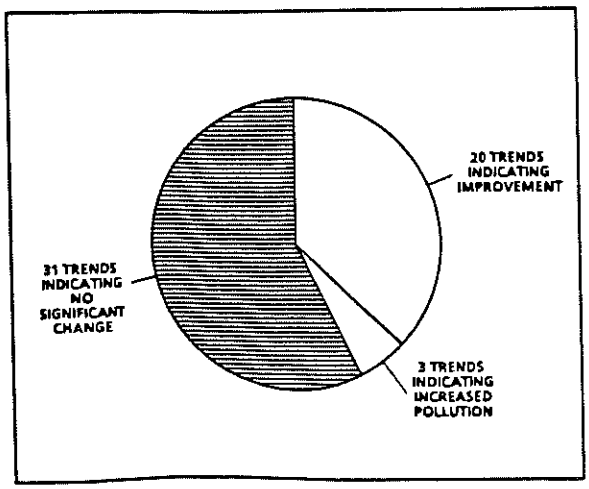
PERCENTAGE OF CT'S MAJOR RIVERS AND STREAMS CLASSIFIED AS FISHABLE AND SWIMMABLE



SEWAGE TREATMENT PLANT CONSTRUCTION FUNDS IN REAL (1990) DOLLARS*



HEAVY METAL CONCENTRATIONS IN SELECTED STATE RIVERS 1974-1989



KEY ISSUES

▶River quality improved slightly in 1990. The partial completion of the Jewett City combined-sewer separation project has improved the water quality of the Quinebaug River significantly. The entire river is now classified as fishable and swimmable. The progress in the Quinebaug is a good example of the potential that exists for other rivers currently being degraded due to combined-sewer overflows. The two graphs to the left indicate a correlation between river quality and total spending for sewage treatment plant construction (with a lag because of the time required to bring plant improvements on line). Progress slowed considerably in the early 1980s because of the decrease in federal spending, but is beginning to accelerate again as state spending increases.

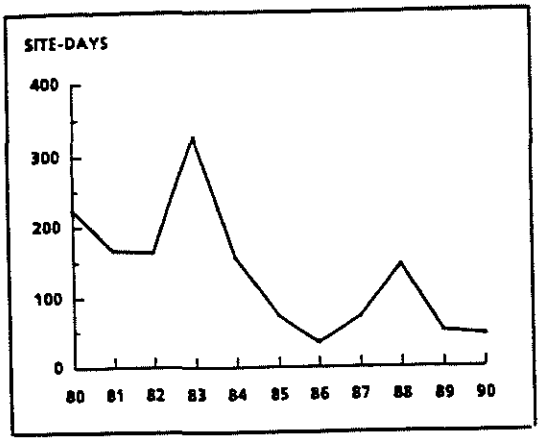
▶Antiquated sewage treatment plants and combined-sewer overflows continue to be the principal impediment to river quality improvements. The antiquated sewage treatment plants discharge organic pollutants, ammonia and residual chlorine into the rivers. Many of the plants in Connecticut will need to be upgraded to remove the nitrogen from their discharges. Combined-sewer overflows also continue to cause untreated sewage to be discharged into the rivers. In 1985, when the new state Clean Water Fund was established, capital costs were expected to total 1.1 billion dollars. Current estimates, including new demands for Long Island Sound, put the total cost at more than two billion dollars; the state will need to allocate 100 million dollars annually for 20 years if the state's goal is to be met by 2010.

▶While concentrations of a substantial number of metals in our rivers are improving, the majority are not changing significantly and a few are worse. According to data analysis completed in 1989 by the DEP for toxic metal concentrations at monitoring stations, 20 out of 54 trend indicators showed decreases in metal concentrations since 1974. Overall, most metal concentrations have been stable during the 15 year period.

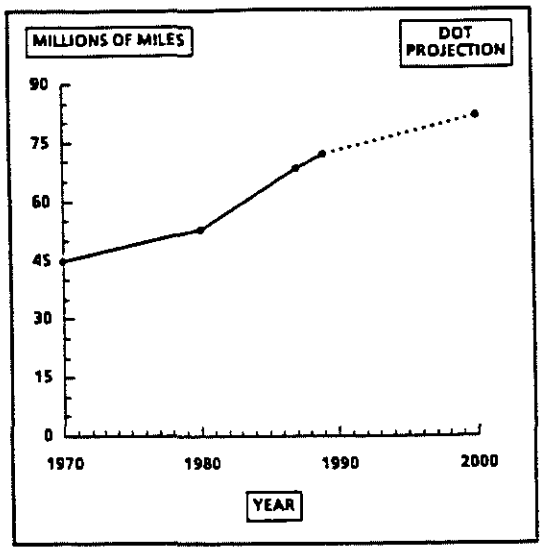
AIR QUALITY

LONG-TERM TRENDS

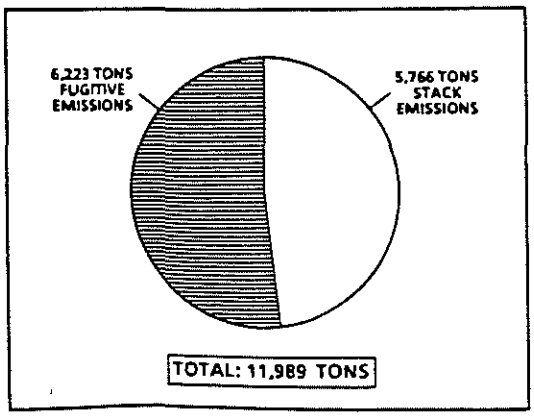
VIOLATIONS OF THE THE 1-HR OZONE STANDARD



DAILY VEHICLE MILES TRAVELLED IN CT



CT HAZARDOUS AIR EMISSIONS FROM SARA SOURCES REPORTED IN 1988



KEY ISSUES

▶Ground-level ozone levels have shown some improvement since the early 1980s. Automobiles are the largest source of carbon monoxide and ozone-forming hydrocarbons. Ground level ozone is injurious to human health and vegetation (and is unrelated to upper-atmospheric ozone which is beneficial but is being depleted.) The gradual improvement in air quality during the 1980s can be partially credited to the Connecticut Automobile Emissions Inspection Program, which was implemented in 1983. This program, along with traffic improvement projects and the constant retirement of older automobiles, have produced two years without carbon monoxide violations. Aside from an isolated 1987 violation of the standard for small particulates (PM-10), no violations of ambient standards for other pollutants--particulates, sulfur dioxide, lead or nitrogen oxide--have been recorded in ten years.

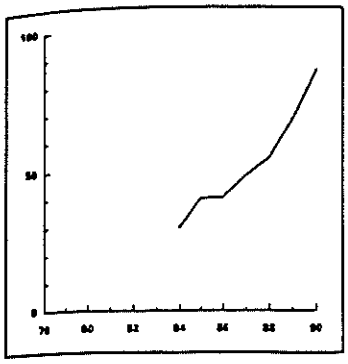
▶Air quality will not improve substantially in the 1990s because of increasing automobile traffic. Although new automobiles emit 60 to 80 percent less pollution than cars built in the 1960s, the upward trend in miles travelled on Connecticut highways is offsetting the technological advances. The current trend in vehicle miles travelled (VMTs) will negate the tailpipe emissions improvements that are mandated by the 1990 Clean Air Act. The state and its municipalities must commit to curbing the upward trend in VMTs through integration of land-use planning with transportation, particularly mass transit. (See Part II of this report.)

▶Fugitive emissions from vents, windows, and leaks rather than emissions from stacks have been found to be the largest source of hazardous industrial pollutants. Analysis of hazardous emission data submitted by the state's 400 largest industrial facilities that use significant quantities of toxic chemicals (listed under Section 313 of Title III of the Superfund Amendments and Reauthorization Act, "SARA") indicates that more than half of all industrial pollution comes from fugitive emissions. The General Assembly should provide sufficient funding, perhaps through an inspection fee program, to enable DEP to expand its regulatory attention to fugitive release emissions.

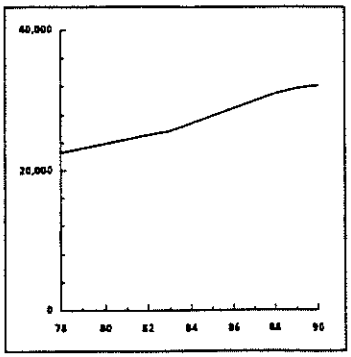
WILDLIFE

LONG-TERM TRENDS

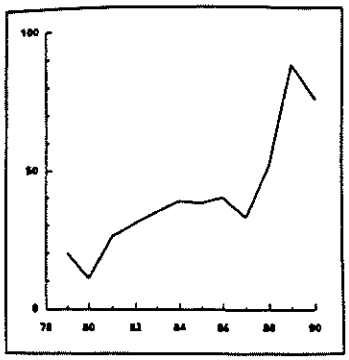
NESTING PIPING PLOVER



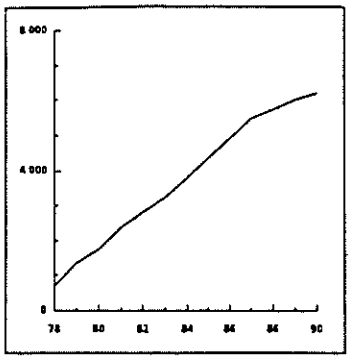
ESTIMATED WHITE-TAILED DEER



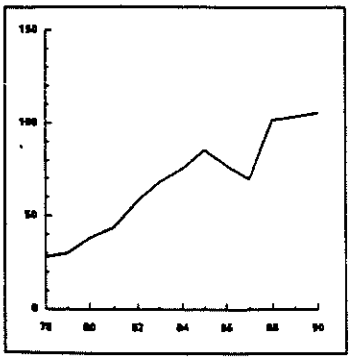
WINTERING BALD EAGLES



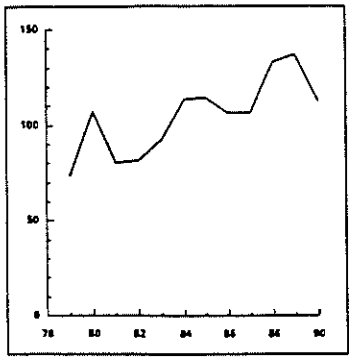
ESTIMATED WILD TURKEY



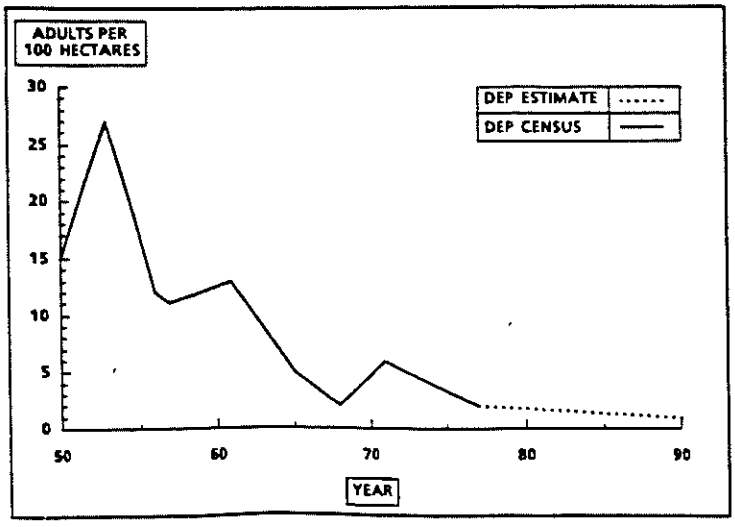
NESTING OSPREY



RIVER OTTER PELTS TAGGED



NESTING BLACK DUCKS IN CT



KEY ISSUES

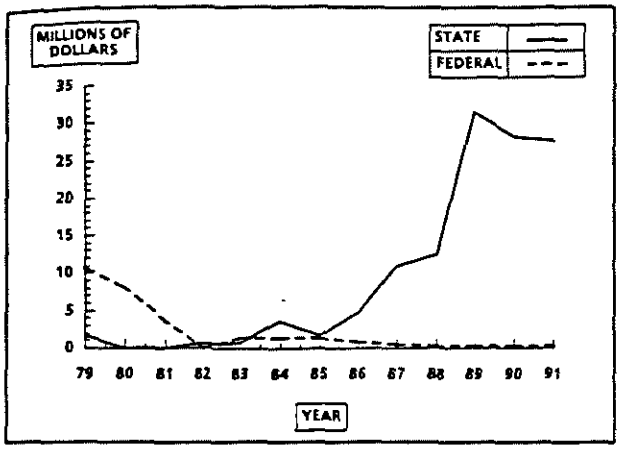
▶Population data are available for only those species of wildlife which are the targets of special conservation or management programs. Not surprisingly, most such species show upward trends. Funds are not available for Connecticut biologists to collect valid statewide population data for species which might be declining but for which no management efforts are underway. The successes illustrated by the graphs to the left mask some serious problems. A survey of state wildlife experts from government agencies, universities, and conservation organizations yielded a general consensus: the biggest threat to Connecticut's wildlife diversity is habitat loss caused by suburban development. Suburban development carves unbroken woodland habitat into smaller parcels, a change which favors common "edge" species (including some nuisance species) to the detriment of woodland inhabitants. The slow real estate market of 1990 caused a lull in the loss of habitat. The two solutions to Connecticut's long-term habitat loss problem are to focus acquisition efforts on large tracts and connecting corridors, and to use land more efficiently for commercial and residential development. (See Part II of this report for more information about better land-use planning.)

▶The Black Duck is a rare example of a declining species for which reliable data are available. Once the premier quarry of New England waterfowlers, the black duck population is but a shadow of its past abundance. Possible reasons for its decline include winter habitat loss, hybridization with mallard ducks (transplanted from the midwest earlier this century), acid rain impacts on the aquatic food chain, and over-hunting. Most importantly, however, the smallness of Connecticut's remnant breeding population reflects the great loss of tidal wetlands earlier this century and the continual encroachment of human activity on adjacent lands. Restoration of tidal wetlands might yield modest improvements in the future.

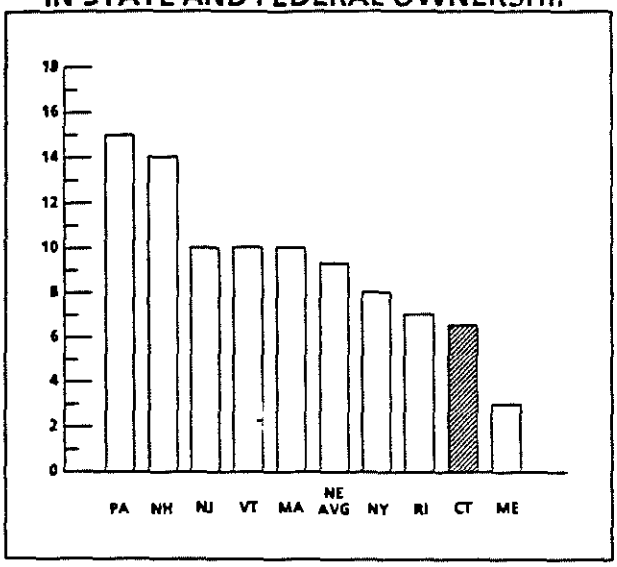
–WOODLANDS, WETLANDS and WILDLANDS–

LONG-TERM TRENDS

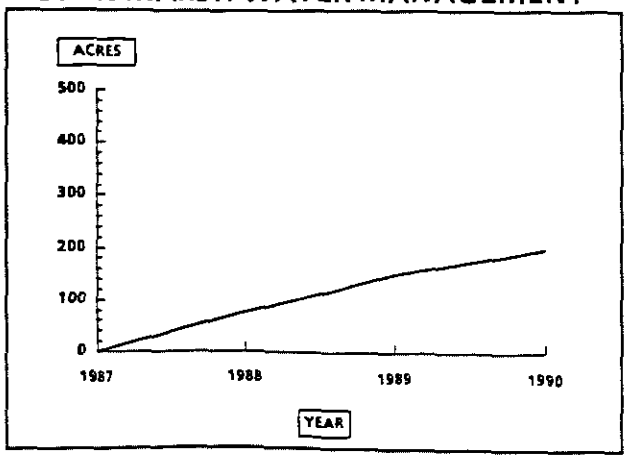
ALLOCATIONS FOR OPEN SPACE ACQUISITION IN REAL (1990) DOLLARS



PERCENTAGE OF LAND IN STATE AND FEDERAL OWNERSHIP



ACRES OF TIDAL WETLANDS RESTORED BY OPEN MARSH WATER MANAGEMENT



KEY ISSUES

▶Connecticut has increased its allocations for open space acquisition in the 1980s, but even at this increased spending level the state will not meet its open space goal. The state currently owns approximately 200,000 acres of open space. If Connecticut is to meet its goal of 320,000 acres owned by the DEP by the year 2000, it will need to increase the rate of its purchases. Connecticut currently ranks 49th among all states in the amount of public open space per capita. Due to our current economic downturn, land prices have decreased and present an opportunity to purchase land at lowered prices. The continued support of the Recreation and Natural Heritage Trust Fund is essential to attaining the state's goal.

▶The 1980s saw the establishment of The Stewart B. McKinney National Wildlife Refuge and, in 1990, Connecticut's first National Historic Site: the Weir Farm. The farm is located on the Wilton/Ridgefield line and consists of 62 acres of farmland once owned by the American Impressionist painter J.Alden Weir. Connecticut worked with the Trust for Public Land over several years to preserve much of the site. Building on these successes, the state should work closely with its congressional delegation to identify other lands suitable for federal protection.

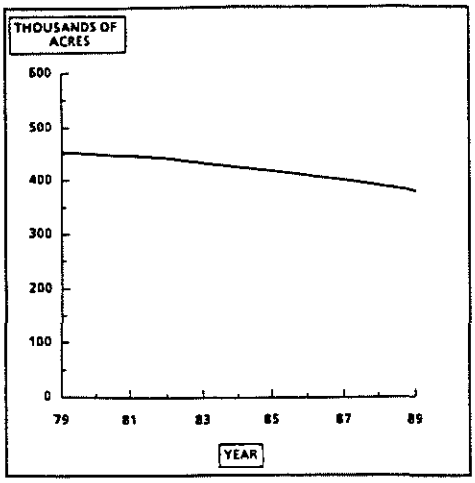
▶Connecticut trails most other northeastern states in the percentage of its land in state and federal ownership. Despite the recent acquisitions, federal land ownership in Connecticut is minuscule.

▶New mosquito management practices benefit wildlife and coastal communities. The majority of Connecticut residents live in shoreline towns during the summer months. In 1986, the Department of Health Services (DOHS) spearheaded a new salt marsh mosquito management policy which utilizes marsh restoration to safeguard public health. Reversing past grid-ditching of salt marshes, which eliminated mosquito predators, Open Marsh Water Management has achieved a 40 percent reduction in pesticide use and eliminates the need for labor intensive redredging, while at the same time restoring wildlife habitat. With sustained funding the DOHS plans to revive 2,000 acres of degraded tidal marsh by the year 2000.

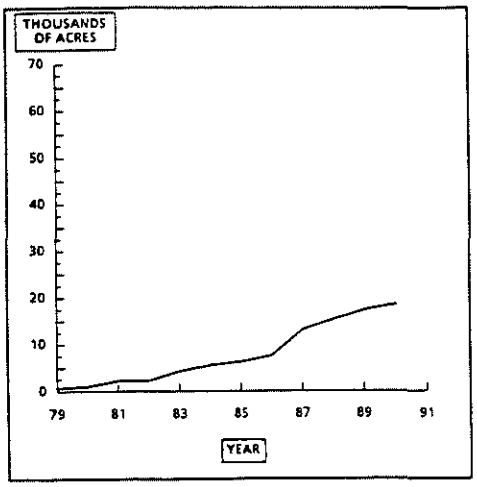
AGRICULTURE

LONG-TERM TRENDS

FARMLAND ACREAGE IN CT



ACRES OF FARMLAND PRESERVED BY CT DEPT. OF AGRICULTURE (CUMULATIVE)



KEY ISSUES

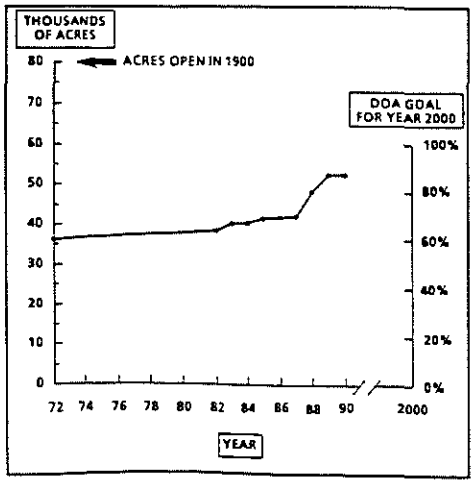
▶Connecticut ranks first in the nation in per-acre dollar value of agricultural production and has always been well above the national average in per-acre productivity. Contrary to the popular history of nineteenth century farm abandonment in favor of more fertile land to the west, the largest decline in New England agriculture since 1880 has occurred since World War II, the result of suburban and industrial development on fertile land. (Source: M. Bell, 1989, "Did New England Go Down Hill?", Geographical Review.)

▶If the state is to achieve its goal of preserving 140,000 acres of farmland by the year 2000 it will have to increase the rate of farmland protection. Due to the current economic downturn, the state has a rare opportunity to purchase farmland development rights at substantially reduced prices.

▶The Integrated Pest Management Program has been successful in reducing pesticide use where it has been applied, but the number of farmers receiving training has been hampered by the lack of significant funds. Over the past 7 years, 168 growers with 6,406 acres of farmland received full-season field training. These growers were able to reduce their pesticide use by 50,250 pounds. Most growers experienced either equal or increased crop quality with IPM. In 1990, state and federal allocations totalled only one-fifth of the funds necessary to provide a comprehensive IPM program, limiting IPM applications to certain fruits, vegetables and turf.

AQUACULTURE

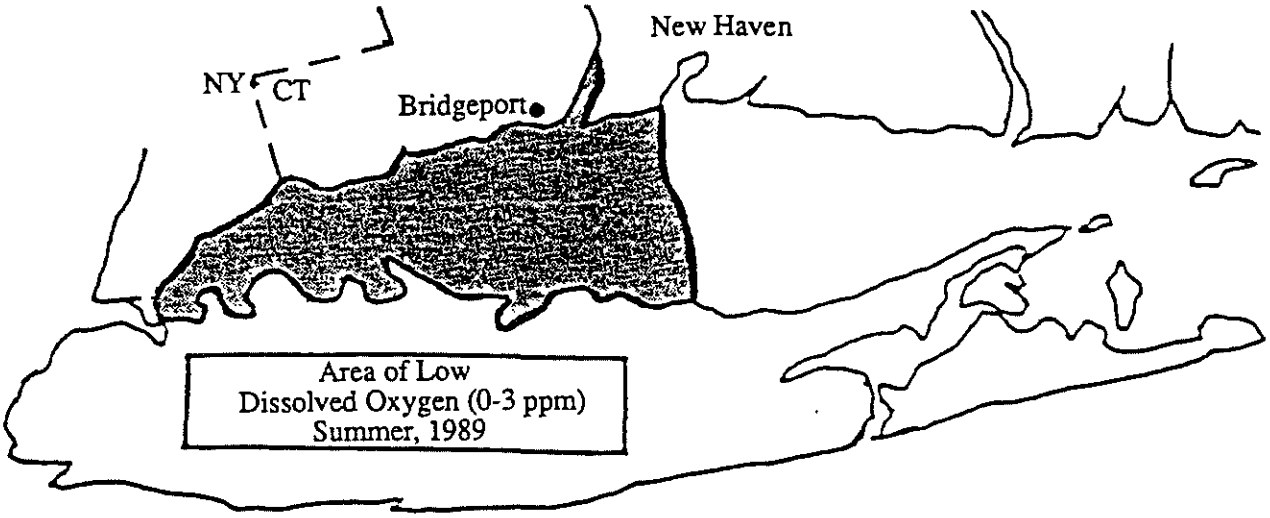
ACRES OF SHELLFISH BEDS OPEN FOR HARVESTING



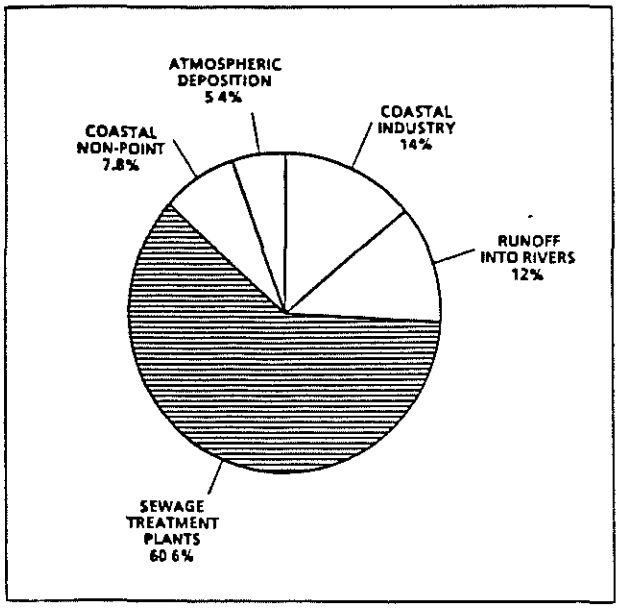
▶The growth of Connecticut's shellfish industry exemplifies the revival of water-dependent businesses made possible by water quality investments. The annual harvest of shellfish in Connecticut for market has risen from 30,000 bushels in the early 1970s to current annual harvests of 130,000 to 240,000 bushels. In 1989, the harvest value of oysters and clams was more than 19 million dollars. The state's economy has received a sizable return for its investment in clean water and restoration of public oyster beds. Further investments by the state should lead to continued growth in revenues from shellfish production.

LONG ISLAND SOUND

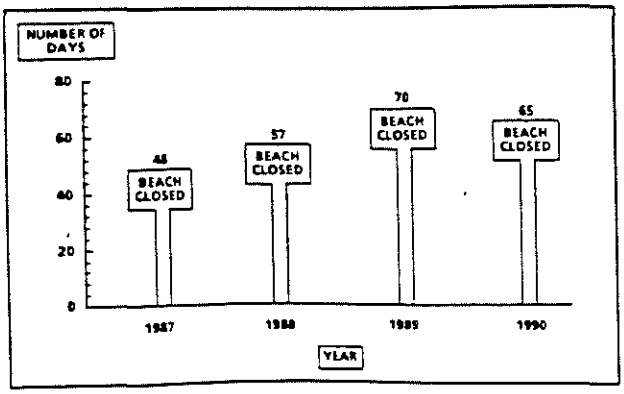
EXTENT OF SEVERE HYPOXIA



MAN-MADE SOURCES OF NITROGEN ENTERING LONG ISLAND SOUND



COASTAL BEACH CLOSINGS DUE TO SEWAGE CONTAMINATION

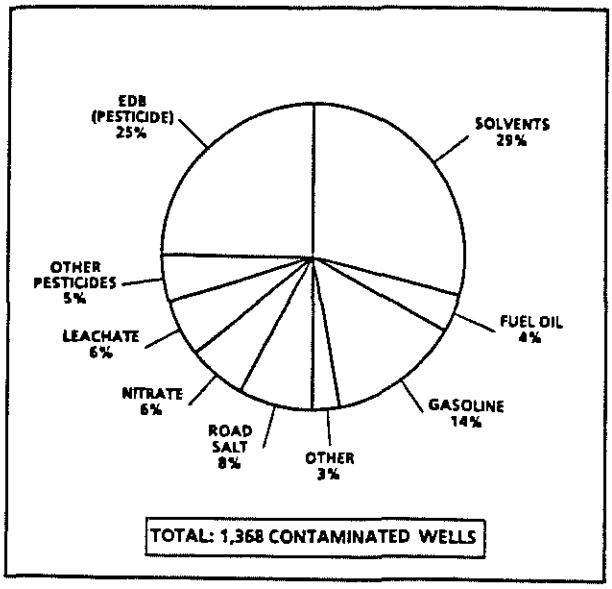


▶Hypoxia is Long Island Sound's most significant problem. Hypoxia is a term for low levels of dissolved oxygen in water. The Long Island Sound Study has determined that hypoxia exists when the dissolved oxygen level falls below three parts per million. The study has identified nitrogen as the main cause of hypoxia's spread. Nitrogen is a nutrient that encourages the growth of marine plants. When these plants decompose, large amounts of oxygen are depleted. Animal life in hypoxic zones suffers stress and eventual suffocation if it can not leave the area. In the summer of 1989, 40 percent of the bottom area of the Sound was hypoxic. Sewage treatment facilities in Connecticut and New York are the largest contributors of man-made nitrogen. The facilities discharge approximately 25,000 tons of nitrogen annually to the Sound. The continued financial support of nitrogen reduction efforts in sewage treatment plants is essential to a healthy Long Island Sound.

▶Raw sewage spills and overflows from combined storm and sanitary sewer systems--not medical waste--are responsible for most beach closings. The media attention that has been focused on medical waste has led to the creation of a medical waste tracking system. The majority of beach closings, however, will continue to persist if raw sewage spills and overflows are not curtailed.

KEY ISSUES

SOURCES OF WELL CONTAMINATION REPORTED FROM 1978 - 1990



▶Leaking underground storage tanks are a major threat to ground water supplies. There are 55,000 regulated underground fuel storage tanks in Connecticut. The DEP estimates that of these, 70 percent could be leaking fuel products. Along with the regulated tanks are thousands of unregulated residential tanks; their condition is unknown. In order to prevent costly petroleum leaks, all underground tanks should be regulated.

▶Pollution prevention is the key to ground water protection. Because of the near impossibility of cleansing a polluted aquifer, ground-water protection efforts must focus on preventing discharges of toxic materials over aquifers. Hazardous material-handling controls and appropriate land-use regulation should be implemented throughout Connecticut at all levels of government.

WHERE WE RANK

From time to time, various national organizations attempt to rank the 50 states on different criteria, including environmental policies and programs. Because policies, local needs, bureaucratic relationships and accounting procedures differ from state to state, such national rankings often lack precision. Nonetheless, Connecticut residents are often curious as to how we compare to other states in the rankings. Below, the Council has highlighted some of the areas where Connecticut has been ranked among the best five and worst five states.

▶ Among the Best Five States

- ▶fertilizer and pesticide use (per capita)
- ▶solid waste policy
- ▶non-point water pollution policy
- ▶water and energy consumption (per capita)
- ▶percent of public water systems in compliance with drinking water standards

▶ Among the Worst Five States

- ▶environmental spending per capita
- ▶spending on parks
- ▶acres of public land per resident
- ▶urban and suburban sprawl
- ▶ozone depleting chemical emissions
- ▶acidity of rain
- ▶percent of population living in areas that do not meet air quality standards

While the rankings are not precise, certain patterns emerge which probably reflect reality. Connecticut is correctly viewed as a leader in policies and laws pertaining to water, air, and waste, but it trails most other states in spending money to implement those laws, in the actual quality of the air, and in the conservation of land.

PART II

THE KEY TO CONNECTICUT'S ENVIRONMENTAL FUTURE: INTEGRATING LAND-USE AND TRANSPORTATION

THE PROBLEM

Some of the most serious environmental problems threatening the citizens of Connecticut are caused by diffuse land development. If current trends are permitted to continue, projections through 2010 predict continued decentralization of employment, housing, and commercial activity. Diffuse residential and commercial areas sprawl over the landscape, necessitating automobile use which in turn inhibits the state's ability to attain healthful air quality.

Connecticut residents, like most Americans, will drive more miles this year than they did in 1970, 1980, or even last year. Among the consequences are environmental, social, and economic problems, including an air pollution problem that will prove extremely difficult to solve, despite the 1990 federal Clean Air Act mandate to do so. Do we drive and pollute more each year because we prefer to, or because land-use, transportation, and other types of public policy have forced us to be automobile dependent? Trends in land development throughout Connecticut leave more and more residents with no options for personal mobility aside from automobile use. Only one fourth of all work trips are accessible to transit. Today's transportation and land-use patterns developed when roads were less congested and households generated fewer daily automobile trips. They are becoming obsolete in view of demographic patterns and environmental realities. Failing to overhaul state and local land-use and transportation policy could doom the state to ever-increasing automobile use, leaving residents exposed to significant economic, environmental, and social costs.

Many of the costs of diffuse development are "hidden," in that they are not accounted for in the price of land or its development, or in the cost of gasoline. Automobile-dependent development makes employment, recreation, and shopping areas inaccessible to members of the population that do not drive; the automobile use it necessitates threatens the health of Connecticut's citizens and curtails their freedom with increasing congestion; and the unnecessary loss of land it causes makes outdoor recreational opportunities more remote and turns the character of the state's landscape into a fading memory.

Some of the costs of diffuse development are not hidden, but have clear economic price tags. The building, maintenance, and expansion of highways have obvious costs related to the rise in automobile use. Automobile use also dictates our reliance on petroleum, the cost of which has been made all too clear in recent months, and forces individuals to spend more on transportation, due to the inability to provide transit to diffusely developed areas. In addition, diffuse development saps economic life from cities and can drive up the costs of housing and land.

One of the principal causes of diffuse development and its costs is *the lack of coordination between land-use and transportation policy at all levels of government.* This one weakness is at the root of many of the most serious environmental problems faced by the state today.

Land use and transportation are inextricably linked. When the two types of policy are not coordinated, sprawl results. Large lot subdivisions, for example, create neighborhoods too diffuse to be conducive to transit. Similarly, office parks situated away from public transit lines effectively require employees to drive to work. The result, then, of forming land-use policy without keeping transportation in mind causes the growth of towns where residents are totally dependent on the automobile.

The relationship between land-use and transportation policy works in the other direction as well. Transportation policy favors automobile use by, for example, funding the expansion of rural roads to serve new employers. The result of this policy is that employers can move to cheaper sites out of the city because employees can travel to work by car. The result is that people, again, are entirely dependent on their cars, commuting from the suburb in which they live to the suburb in which they work.

The relationship between land-use and transportation policy, then, is one which, if not coordinated, causes patterns of development that are detrimental to the public. Coordination of transportation and land use, however, is within reach. Connecticut can choose to continue along the road to increasing land loss and congestion, or it can build more efficient communities.

While population increases and economic growth do not necessarily result in sprawl, inadequate policy coordination does. Partly because of outmoded zoning ordinances and public policies, land development is growing 50% faster than population. Alternative future landscapes are possible, but each requires different choices to be made. (In the Seattle, Washington area, residents were actually invited to vote for their future landscape, and selected something quite different from current trends.) State government in Connecticut shies away from making those choices, opting instead to serve private market forces. That decision and the current assemblage of policies and programs are not laissez-faire, however, but present a government-selected alternative for the state's future landscape. Through grants, construction, and regulatory decisions, state agencies routinely, if unwittingly, encourage and tolerate suburban sprawl.

The Council has explored the state's responsibilities and opportunities to guide transportation and land use. Many of the necessary policies already exist and planning takes place at the local, regional, and state levels of government. The creation of an entirely new planning process is not necessary. The challenge is to find a means for integrating transportation and land use policies at all levels of government to accommodate economic growth, enhance personal mobility, and reduce the environmental consequences of sprawl.

SUMMARY OF FINDINGS

The Connecticut General Assembly, frequently recognized for leadership in environmental policies, has enacted the basic laws and institutions necessary to conserve our air, water, and wildlife resources. In addition, recent years have seen a renewed commitment to acquisition of land for conservation purposes. However, one large piece of the environmental protection puzzle still eludes Connecticut: the coordination of transportation and land use. In examining the persistent environmental problems that result from ever-expanding automobile use, the Council arrived at the following conclusions:

1. *Land use and transportation are fundamentally linked.* Existing land-use and transportation policies, however, do not reflect this relationship. As an example, the Department of Transportation (DOT), while acknowledging the link between transportation demand, congestion, and land use, has historically worked to accommodate market-driven land-use patterns; no significant effort has been made to reduce future demand for automobile travel or to make future mass transit systems cost-effective by influencing land use. The result of this lack of policy coordination is sprawl and increased automobile dependency.

2. *State agencies encourage sprawl.* Despite sprawl-discouraging goals in the State Plan of Conservation and Development ("the State Plan"), several state agencies unwittingly tolerate, encourage, and subsidize suburban sprawl.

3. *Large upward trend in automobile traffic.* The number of Vehicle Miles Travelled (VMTs) in Connecticut increases about 3% every year, much faster than population growth.

4. *Diffuse Development.* The upward trend in automobile traffic is attributable to the decentralization of employment, housing, and commercial activity. Projections through 2010 predict continued suburbanization of Connecticut. As a result of this trend, suburb-to-suburb commuting is the fastest-growing component of commuter traffic. This type of travel demand cannot be served efficiently by transit, rendering most suburban areas accessible only by car.

5. *Impediment to transit.* The DOT, in trying to serve the land-use patterns created by market forces, finds that most new commercial and residential development is too dispersed to be served by transit, and therefore necessitates highway expansion.

6. *New trends, new demands.* Land development is growing 50% faster than population. Many municipal planning and zoning practices do not deal effectively with contemporary development pressures; this weakness leads to inefficiency in land use.

7. *Urban Decline.* Policies that encourage businesses to locate outside of cities have inadvertently contributed to the decline of the state's largest economic centers.

8. *Environmental Degradation.* Sprawl and automobile traffic are the principal reasons Connecticut will fail to meet air quality goals in the foreseeable future. Suburban sprawl is the principal threat to many wildlife species and to the aesthetic quality of the New England landscape.

9. *Energy Consumption.* Connecticut's land-use and transportation patterns are not consistent with state energy goals to reduce petroleum consumption, but rather are driving it to all-time high levels.

10. *Lack of consistency.* Many municipal land-use approvals lead to transportation patterns which are not consistent with the State Plan and its goals.

11. *Alternatives.* Extension of current trends, which will lead to worsening of congestion, air quality, and all of the negative consequences of sprawl that are now apparent, is but one possible future. Alternative policies, which will lead to more sensible land use and transportation patterns, are possible, but will require deliberate action.

12. *Other states.* At least eight states have adopted legislation aimed at integrating state transportation and land-use policy with municipal plans. While Connecticut has many of the necessary elements in place already, it lacks an overall framework for coordination.

13. *Planning institutions exist.* Connecticut and its municipalities have a tradition of planning that makes creation of a whole new planning system unnecessary. A State Plan, planning commissions in nearly all municipalities, professional planning staff at the municipal, regional, and state levels, plus active regional planning agencies put Connecticut ahead of much of the nation. Due to insufficient coordination, however, Connecticut continues to develop in ways not envisioned by the plans of many of the state's various planning bodies.

SUMMARY OF RECOMMENDATIONS

The state's challenge is to find a means for integrating transportation and land-use policies to accommodate economic growth, enhance personal mobility, and reduce the environmental consequences of sprawl. Building on the existing planning process, the General Assembly should take the following steps toward meeting the challenge:

1. *The General Assembly should amend Section 16a-24 of the General Statutes to adopt specific planning goals (see p.27 of this report), and require their inclusion in the State Plan of Conservation and Development ("the State Plan");*

* The General Assembly should adopt the Council's recommended goal of no-net increase in traffic (Vehicle Miles Travelled) after 2000 and use this goal to guide other, related policies;

* The General Assembly should also make a state commitment to encouraging more compact development served by transit as an alternative to sprawl.

2. *The General Assembly should modify the procedure for the preparation of the State Plan to incorporate greater coordination among state agencies and municipalities.* Integration of transportation and land use should be a primary goal of all agencies.

3. *The General Assembly should require state regulatory agencies, in their evaluation of permit applications, to consider each proposed regulated activity's consistency with the State Plan.*

4. *The General Assembly should require all state agencies, when approving grants and construction projects, to adhere closely to the State Plan and its goals;*

* If an agency proposes to fund and/or construct a project that is accessible only by automobile, is likely to induce increases in automobile traffic, or will encourage or facilitate sprawl, the agency should be required to demonstrate that no prudent alternatives are available which, if implemented, would help to reduce automobile use.

* Early in the planning process for each state-sponsored project, state agencies should be required to give more weight to possible alternatives which will emphasize reductions in automobile dependency and traffic volume.

5. *The General Assembly should establish an administrative procedure for ensuring the consistency of municipal plans of development with the State Plan;*

* This procedure should involve considerable two-way discussion between the state and municipalities, important roles for the regional planning agencies, and substantial incentives for ensuring consistency of the State Plan and municipal plans of development;

* The General Assembly should amend Section 8-2 of the Connecticut General Statutes to ensure that each municipality's zoning regulations reflect its plan of development.

6. *The General Assembly should require all state agencies that have duties and responsibilities with land-use implications to develop functional plans which shall be consistent with the State Plan and its goals.* With consistency among state agency, regional, and municipal plans (#5 above), state agency plans which are consistent with the State Plan will be consistent with municipal and regional plans as well.

7. *The General Assembly should provide the Office of Policy and Management's Policy Development and Planning Division (which includes the former Comprehensive Planning Division) with the resources necessary to enhance coordination among state agencies, regional planning agencies, and municipalities in revising and implementing the State Plan.*

* Because the State Plan will be more important to agencies and municipalities when its uses are expanded, there will be greater interest in the details of the State Plan as it is revised. The state planning staff should be prepared for more discussion with all levels of government, and should be able to instruct agencies in ways to integrate land-use and transportation in their plans and projects.

8. *The General Assembly should require the Department of Transportation to expand work with the private sector to decrease Vehicle Miles Travelled and Single Occupancy Vehicle commuter trips.*

"Hopefully we will all join together to shape our land use policies toward New England's common environmental goals with deliberate forethought and democratic involvement. Otherwise, land use decisions involving public as well as private interests will drift by default with more happenstance than foresight."

1975. John A.S. McGlennon, Regional Administrator, USEPA Region 1. *Land Use and New England's Environment.*

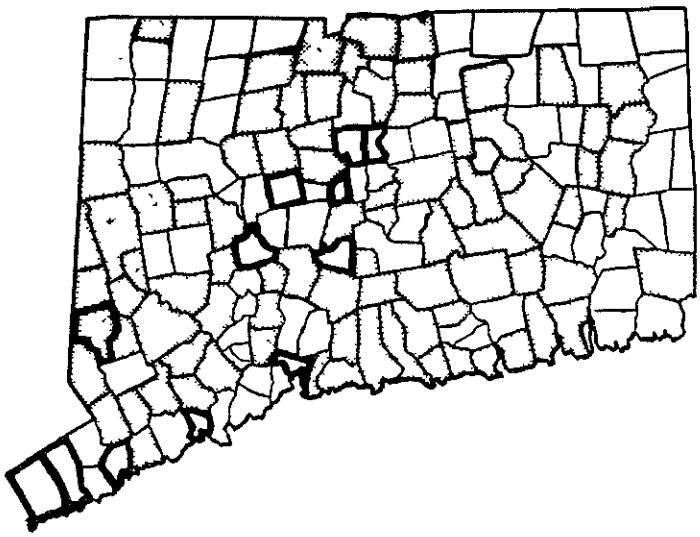
THE COSTS OF SPRAWL

"Urban sprawl" -- which, in Connecticut, is really suburban sprawl -- was decried much in the 1960's and 1970's, yet the sprawl that has taken place just since that time is the root of many of our current environmental problems. Some Connecticut towns have been successful in arresting strip development, sprawl's most visible symptom, but even those towns have contributed much to the rapid growth in automobile traffic. While individual developments are often heralded as successful products of efforts to promote economic growth, their collective support costs every resident a significant sum in avoidable environmental, economic, and quality-of-life costs.

ECONOMIC COSTS OF SPRAWL

The Decline of Cities. One of the most obvious costs of sprawl -- though one that does not affect all residents equally -- is the draining of commercial life from our cities. New commercial developments thrive in the suburbs around the centers of Hartford, New Haven, New London, Waterbury, Bridgeport, Meriden and virtually all the state's major cities, leaving those cities with diminishing economic resources. In 1970, the ten largest cities in the state contained 46% of the state's jobs; by 2010, that figure is projected to drop to 39%. Three of four new non-rural jobs have been located in suburbs since 1950. (See figure 1)

Figure 1



MUNCIPALITIES WITH EMPLOYMENT GROWTH OVER 100% (1970-2010)
(largest municipalities outlined in bold)

Highway Improvements. Sprawl is based on automobile use, which requires building, maintaining, cleaning, plowing, and policing roads. The costs involved are passed on to the public. While the State Traffic Commission (STC) often requires large traffic generators to pay for the construction of road improvements to ease traffic flow, the obscure costs of siting those generators in diffuse suburban locations include congested roads which the taxpaying public must ultimately maintain.

Two outstanding examples of sprawl's public costs are the improvements being planned in the I-91 and I-95 highway corridors. These highways, conceived for intercity travel, are cluttered by both suburban-to-urban commuters and

suburb-to-suburb commuters. In the case of I-91 near Middletown and Route 72, the Department of Transportation (DOT) has concluded that new interchange ramps will cost eight to sixteen million dollars. The ramps are necessitated by industrial and commercial development in *suburban locations*, including hotels, office parks, and retail developments.

The I-91 example is dwarfed by the problems of the I-95/Merritt Parkway corridor from New Haven to Greenwich. A two-decade trend toward suburban employment centers, fueled by each municipality's need for grand list expansion, has created commuting patterns that are not conducive to mass transit. A preponderance of single-occupancy vehicle trips necessitates additional highway lanes. The DOT estimates that ten new lanes would alleviate severe congestion on I-95 and/or the Merritt -- even if the state also invests a half billion dollars in enhancing transit. The reason that transit alone is not sufficient to reduce congestion is that neither the jobs nor the homes are concentrated enough to support much additional transit. The total cost would amount to thousands of dollars per Connecticut resident. (This problem was forecast 20 years ago; see "Focus: Nothing New," p.16.)

> "We have the most advanced transportation complex in the world. We have highly engineered transportation equipment and systems, yet for a two-to-four hour period in most urban areas and the better part of the day in some, our systems are incapable of moving us at speeds any greater than those attainable at the turn of the century.
>
> 1968. Max L. Feldman. *Environment and Policy: the Next Fifty Years.*

Congestion. Congestion has costs of its own, beyond the impacts to human health: the clogged road network is an impediment to attracting new businesses and to the transportation of goods and employees. Unless current trends are altered, the congestion on highways will worsen. By the year 2010, 43% of the state's expressways will suffer congestion with traffic speeds of less than 35 miles per hour. The 1990 *Statewide Transit System Plan* found that population and employment are growing in different locations, so that daily Vehicle Miles Travelled (VMT's), which increased 62% in the last 20 years, will continue to increase in the future. In Fairfield County, the high cost of housing heightens the demand for automobile travel, as employees must seek housing in distant towns where it can be afforded.

The Difficulty of Providing Transit. Sprawl costs each town money when school and elderly transport services are spread out. In addition, individuals spend more on transportation than they would like because they have no transportation options; municipal land-use regulations have diffused residential, commercial, employment and recreation areas, creating densities too low for transit service and leaving residents automobile-dependent for virtually all activities.

The Connecticut DOT notes in its *Statewide Transit System Plan* of 1990 that suburb-to-suburb commuting is the fastest-growing component of commuter traffic. While a balance of employment and housing is good for a community, and one possible result may be shorter commutes for suburbanites, more often the actual result is that suburbanites do not live and work in the same area and must travel greater distances in a pattern not conducive to mass transit. The first employers and employees in a community enjoy the lack of congestion; as growth follows, the initial advantages disappear and a land-use/transportation pattern is established which does not provide the densities necessary for transit.

Land Scarcity and Rising Costs. Many zoning regulations, such as large minimum lot size requirements, are wasteful of land and contribute to higher housing costs than actually necessary to preserve environmental quality and provide suburban amenities. For people of modest means, home ownership may be unnecessarily expensive near their place of employment, necessitating their locating in distant towns or fringe areas, a move which only increases sprawl and road congestion. Also, as more land is subdivided than is necessary to support housing, Connecticut's few industries harvesting renewable natural resources -- forestry, agriculture, commercial fishing -- find it difficult to retain access to the land they need.

FOCUS: NOTHING NEW

In a 1970 report, the Regional Plan Association (RPA) recognized the effects of the pattern of development they referred to as "spread-city" characterized by "new housing subdivisions unrelated to existing development or to each other, almost all of much the same low densities, interspersed with scattered offices, factories, shopping, garden apartments, and other facilities." This homogenized pattern of development, RPA wrote, had already affected and would continue to dominate southwestern Connecticut.

The RPA's 1970 report, "The Future of Southern Fairfield County", forecasted that the future would see "a great deal of scattered facilities in the suburbs but inadequate highways to handle the traffic they generate." Today the locational imbalance between where people live and work has increased congestion on southwestern Connecticut's highways, decreasing the level of service standards to level E, regarded by highway planners as unacceptable.

The warning posted by RPA in 1970 was not heeded. In the past 25 years, more land has been developed as a result of spread-city development than in the previous 200 years. Today the RPA forecasts that the spread-city pattern will continue to swallow up land and increase congestion on highways. The Council agrees with the RPA that integrated planning, properly implemented, could arrest this pattern of development and the detrimental effects it has on our communities, transportation, and environment.

"Most towns have been looking to large-lot zoning as a way of assuring open space. It is a valuable tool but applied wholesale it can backfire. By forcing developers to homogenize the entire tract with equal size lots, many communities have accelerated the premature development of wide swaths of the countryside. The developers, naturally enough, tend to leapfrog out where the land is cheaper. The result is a sprawling mess in which 10 acres are used to do the work of one and in which there is so much roadway to connect it all that you often can't see the grass for the asphalt. The eventual service load for the community is usually higher than the taxes it can collect from the subdivisions and for the residents, the open space so dearly sought usually turns out to be quite temporary."

1962. William H. Whyte. *Connecticut's Natural Resources: A Proposal for Action.*

ENVIRONMENTAL COSTS OF SPRAWL

Air. The 1990 federal Clean Air Act amendments call for the classification of certain regions of Connecticut as "severe" or "serious" non-attainment areas for ground-level ozone, commonly known as "smog"; most of the state is expected to be so classified. This automobile-generated pollution is the only air pollutant that Connecticut has not brought under control. All other pollutants meet health-based air quality standards. (See "Air Quality" in Environmental Quality Index portion of this report.) The reason for the continued violation of the one-hour ozone standard is simple: even as individual cars are producing fewer pollutants per mile travelled, the total increase in traffic compensates for each individual car's improvements. Current trends in VMTs will offset the 50% tailpipe emissions improvements mandated by the U.S. Congress in 1990.

The increase in vehicular traffic is not unique to Connecticut; as a corridor state, Connecticut receives the air pollution from automobiles passing through the state, as well as from vehicles in the metropolitan New York area. On summer days, New York's emissions can contribute significantly to Connecticut's air quality problems. Nonetheless, Connecticut automobiles are a major source of southern New England's regional ground-level ozone problem. Connecticut will not attain healthful air if current trends in automobile use continue.

Water. Several of Connecticut's other difficult environmental problems are caused or worsened by sprawling land-use patterns. A 1974 study, *The Costs of Sprawl*, conducted for several federal agencies, concluded that total water pollution (primarily runoff) from compact development is less than from sprawling development.

Wildlife. The effect of sprawling development on wildlife is usually not detected by the casual observer, but is regarded by most wildlife experts as the most important threat to Connecticut's biological diversity. New residents of suburban fringe areas are often delighted by the abundance of birds and mammals near their homes. As development continues, however, only the visible, human-tolerant "edge" species survive. While deer, raccoons, rabbits, and common

songbirds continue to delight residents, few notice the decline of woodland-nesting birds that cannot tolerate the intrusion of edge habitats. For wildlife conservation, ideal development would include large, unbroken woodland tracts sufficient in size to harbor thrushes, vireos, and other woodland inhabitants, in addition to the more common chickadees, cardinals, and finches.

ENERGY IMPACTS OF SPRAWL

Suburban sprawl spreads with no regard for the future. Connecticut's transportation system, necessitated by the state's development patterns, is almost entirely dependent on oil, supplies of which are limited. But alternatives to petroleum, if they become available, are likely to be expensive. Despite improved fuel efficiency of newer cars -- 50% more efficient in 1988 than in 1973 -- Connecticut drivers have reached an all-time high in gasoline consumption (1.5 billion gallons annually). The state's 1990 biennial energy assessment notes that, "transportation planning efforts must go beyond vehicle efficiency and fuel supply and begin to incorporate planning which takes into account alternatives that can maximize individual mobility and energy security while reducing pollution, congestion and ultimately the vulnerability associated with the use of petroleum-based transportation fuels."

"QUALITY OF LIFE"

Loss of Mobility. Beyond the obvious loss of mobility caused by the congestion inherent in sprawling development, automobile-based communities restrict the freedom of those residents who cannot or do not wish to drive, particularly the elderly and children. This loss of mobility is ironic, since it was the freedom of the automobile that made modern suburbs possible.

Loss of Landscape and Sense of Place. Standardization of subdivision and zoning regulations, based on common, automobile-oriented, engineering principles, are yielding a homogeneous landscape. Roads and buildings are characterized by sameness. The New England landscape is being lost, not to the actions of private property owners who do what they wish with their land, but to the actions of private landowners who, when developing, must adhere to outdated planning and zoning regulations.

> "Land use planning must be considered as crucial to the preservation of even more fundamental rights - the Constitutional guarantees of life, liberty, and the pursuit of happiness. For when the land is gone, drained, paved over, destroyed as breeding ground, open space or wild life habitat, life goes with it. Without sufficient land for recreation, for controlled expansion or as a buffer between the eco-system and industrialized society, our liberty is lost as well. For we become prisoners of our technology and alienated from the world which gave us birth and gives us life. If we do not modify our patterns of population growth and land utilization, our happiness will vanish as well, and all of us, young and old, black and white, rich and poor will end our days in sterile ghettoes, not only in our crowded unplanned cities, but everywhere."
>
> 1973. Dan W. Lufkin. *The Spoiler's Hand - The Rage of Gain.*

THE STATE'S ROLE AND RESPONSIBILITY

State government is more than a witness to sprawling suburbanization -- it is a major force. The state, through construction, grants, and regulatory decisions, selects or approves the location of employment centers, retail centers, roads and road improvements, transit systems, sewers, public water supply systems -- in short, the determining factors in the geography of Connecticut's built environment.

The state's role is acknowledged in the *State Plan of Conservation and Development* ("the State Plan," formally titled the State Policies Plan for the Conservation and Development of Connecticut.) Developed by the Office of Policy and Management (OPM) in consultation with other agencies and the public, and approved by the General Assembly, the State Plan is advisory to agencies and the State Bond Commission when planning or approving projects. Many of the policies in the State Plan are intended to minimize sprawl, pollution, and automobile traffic. Most capital projects are checked for consistency with the State Plan, but a project might be consistent with some elements while being inconsistent with others (as in the case of an affordable housing project which fulfills the State Plan's housing goals, but not its transportation goals.) Beyond capital projects to which the State Plan is only advisory are a variety of state regulatory actions that have no association with it whatsoever. (The Water Diversion Policy Act is a rare example of a statute with a specific reference to the State Plan as a factor for consideration when evaluating applications.) One result, for example, is that the state can wind up owning an expanded road or highway interchange in a location deemed inappropriate by the State Plan, if it is constructed by a private party, per order of the State Traffic Commission (STC), to serve a development. The STC, like most regulatory agencies, has no procedure for considering a project's consistency with the State Plan of Conservation and Development.

"The growth in automobile travel... is tightly linked to changes in land use, development, and demographics. New residential growth is occurring in suburban and exurban (rural) areas, and a large portion of new jobs, new retail development, and other trip destinations are locating in fringe urban and suburban areas. The result of these changes in land use is a trip pattern which is more dispersed, with scattered trip origins and scattered destinations replacing the older patterns where trips were focused primarily on city centers. These new trips are difficult to serve efficiently with transit."

1990. Connecticut Department of Transportation. *Connecticut Statewide Transit System Plan.*

THE STATE'S ROLE IN TRANSPORTATION

While acknowledging the link between transportation demand, Vehicle Miles Travelled (VMTs) and land use, the Connecticut Department of Transportation (DOT) has historically worked to accommodate market-driven land use patterns. In other words, no significant effort has been made to reduce future demand for automobile travel or to make future mass transit systems cost-effective by influencing land use. Occasionally, when a large employer has sought to move to a suburban location, the state has subsidized the roads. While there might be sound economic incentives for these projects, such "accommodations" have contributed to the suburban commuting boom and the decline of mass transit. This trend is not sustainable, and it is doubtful that enough roads could ever be built to serve the desires of every employer.

State-sponsored road projects are required to be consistent with the State Plan of Conservation and Development; most are consistent, although occasionally projects are proposed which are not. More integral than the roads themselves to the growth of sprawl and traffic, however, is the private development stimulated by the initial availability of new roads and interchanges. At present, the state has no legal mechanism for managing the boom in land use and traffic generators spawned by its own projects.

Many planners are of the opinion that major new road projects will not shape Connecticut's development any longer, as most major highways are already established. Opportunities abound, however, for coordinating transportation and land use. The state can influence land use through the following transportation policy tools, many of which are in place, but are not fully utilized.

* ***Establishment of a specific goal for traffic volumes.*** Automobile traffic can be reduced, though the current trend is toward large increases. A goal to stabilize traffic at current levels is probably attainable. Both capital and regulatory decisions could take into account each project's contribution to the increase in total traffic volumes. For example, large employers and developers who stimulate new VMT's could be induced to implement trip-reduction measures, such as carpool lots, transit shelters, and bus-ticket subsidies to offset the increases. Transportation Demand Management could be implemented through municipal trip-reduction ordinances, used in parts of New Jersey, and, given proper statutory authorization, through the STC permit requirements.

* *Strategic location of roads and interchanges: the role of capital investments.* The Route 2/Route 3 connector in Glastonbury is a recent state-funded project that involved a state-municipal-private partnership, one that is probably viewed as a success from traditional municipal and transportation planning perspectives. It can also illustrate the way in which the state stimulates automobile traffic and automobile-dependent development. As the state prepared to construct a direct connection from Route 3 to Route 2 and also provide access to Glastonbury's Main Street from Route 3, the town zoned the adjacent land for commercial development. A private developer controlled a key parcel of land, and contributed toward a road leading from Main Street. The state designed the exit ramp to serve the town's and developer's preferences. An attractive development of office buildings with shops and restaurants has been constructed on the site. From Glastonbury's viewpoint and from a traditional transportation planning perspective the project is located ideally. However, virtually every person who works or shops there must drive or ride in a car. There is no direct transit service. Very few people live within reasonable

walking distance. Some people who visit the new buildings to shop or work probably would have driven a longer distance had the development not been built, but the development also attracts hundreds, if not thousands, of cars daily from other areas. A development that also incorporated residential units (as the developer proposed), or coordination with state transit systems, might have attenuated the automobile traffic generated by this state project.

> "There is a crucial link between land use and transportation. Unless there are new policies to encourage more compact development and to force developers, speculators and builders to bear social, environmental and economic costs they cause through low-density sprawl all over the suburban and rural landscape, mass transit has little chance of success no matter how much subsidy monies the government pours into it."
>
> 1990. John Pucher. *Transportation Planning: A Question of Policy or Preference?*

* ***Approval and acceptance of privately-funded road improvements associated with large traffic generators: the role of regulatory actions.*** Current state law contains a paradox. When the DOT proposes a highway improvement, the agency must evaluate the environmental impacts of the project and, in conjunction with OPM, assess the project's consistency with the State Plan of Conservation and Development. OPM must notify the Bond Commission of the project's consistency or inconsistency prior to release of funds. Paradoxically, the same improvement undergoes no state-level environmental assessment or review for consistency with state planning goals if it is built by a private developer in conjunction with a mall, office park, or other large traffic generator even though ownership, maintenance, and general liability are later transferred to the state. Whether built by the state or a private developer, the end result is the same: a new state-owned improvement with resultant environmental impacts, changes in land use, and potential traffic growth. Privately-built road improvements are approved, and usually mandated, by the STC as conditions of permit approval, and are later accepted by the DOT. Despite the strong influence of STC decisions on the environment, land use, and traffic volume, the STC's statutory decision-making criteria include none of these factors. As a result, the collective decisions of the STC have resulted in a statewide trend toward placement of major traffic generators in suburban locations, not generally served by transit.

* *Integration of transportation with state and local land use policy.* Transportation networks greatly influence land use and land use in turn greatly affects transportation needs. The time required to travel to work, for example, is one of the most important criteria people use in selecting a place to live. The condition and flow of highways and transit thus contribute to demand for housing in certain areas. People move eagerly to sparsely populated areas because the roads allow fairly rapid travel. When so many people move there that

the rural roads become congested, the residents then clamor for expensive road improvements. If the improvements are undertaken, the state or local government essentially subsidizes the individual's sprawl-inducing decision. The same process occurs with suburban office park developments.

The pattern is perfectly predictable, and could be avoided if the state emphasized the coordination of transportation and land use through a consolidation of grant policy, regulatory policy, and leadership in attitudes. By introducing planning considerations into decisions of the STC, for example, large traffic generators could be guided away from sparsely-populated areas.

The Griffin Line project, being proposed by the Greater Hartford Transit District, embodies exactly the type of planning that is required. The plan involves construction of a light rail or bus transit-way from Hartford to Bradley International Airport. The key to the success of the project is the cooperation of communities along the way in re-zoning the transit corridor to support the densities of residential and commercial uses necessary to make transit economically viable. The transit system is designed in a way that could combat suburban sprawl, rather than encourage or subsidize it, if accompanied by complementary growth.

* *Leading by example.* The state could, for instance, establish parking policies which discourage single-occupancy vehicle commutes. The state has the opportunity to show leadership in one of its own projects: the new State Office Building and Parking Garage. By managing transportation demand through parking policies coupled with transit options, the state can help to keep unnecessary traffic off the road.

* *Funding of diversified transportation modes, including transit.* The state could influence land use and transportation by establishing a statutory commitment to a diversified transportation network and by making an increased financial commitment to transit.

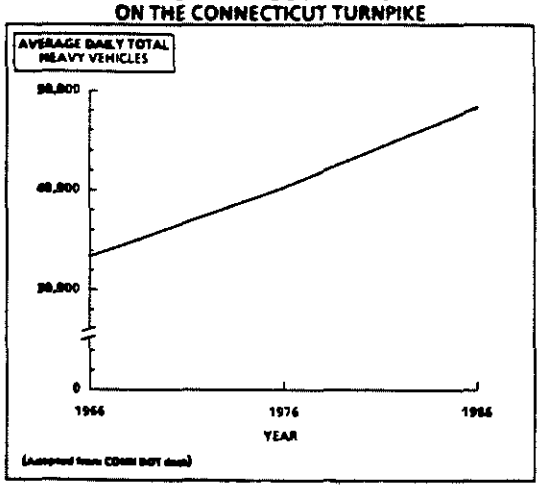
The New England Pollution Prevention Council, co-chaired by U.S. Environmental Protection Agency Region I Administrator Julie Belaga, has drafted a set of principles for preventing automobile pollution by altering state transportation policies. (This draft is under discussion and has not been endorsed by the Pollution Prevention Council.) Many of the principles in that draft are being developed concurrently by the Conservation Law Foundation of New England. One of the guiding principles is *least-cost transportation.* A model for a least-cost policy is the electric utility industry. The 1980's were marked by a shift in regulatory thought, so that many electric utilities now (by choice or regulation) invest funds in energy conservation rather than new generating facilities, because conservation is the least expensive way to expand supply.

Public transportation policy should choose the system that costs the public the least when all costs, including environmental costs, are taken into account. If all of the unmeasured costs of automobile traffic are factored in, transit costs less than automobile use. This should be reflected in actual costs to commuters. The DOT, in its *Statewide Transit System Plan*, researched the option of financing transit through gasoline tax increases and commuter taxes; either option would constitute sound policy.

FOCUS: TRUCKS AND TRAINS

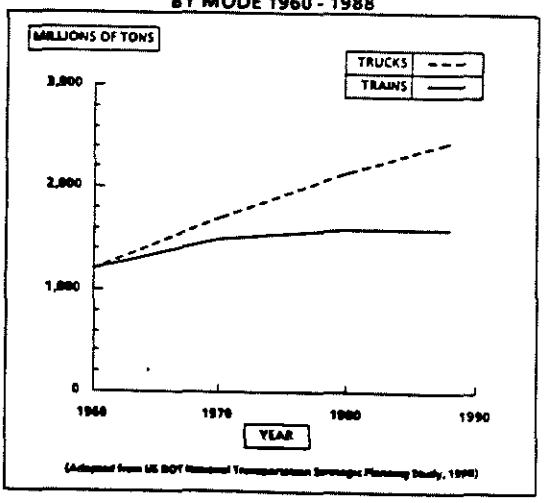
Truck traffic contributes significantly to congestion and road repair costs, and diesel emissions can affect the health of other highway users. On the Connecticut Turnpike (I-95) truck traffic has increased 45% over a 20 year period (see graph). On an average day, one of every seven vehicles on I-95 is a truck.

TREND IN TRUCK TRAFFIC
ON THE CONNECTICUT TURNPIKE



While all modes of freight transport have experienced rising use, trucking has increased faster than other modes. Of the 693 respondents to a Connecticut Department of Transportation survey of businesses involved in goods movement, more than 60% used trucks exclusively, while none used rail exclusively; almost all of the respondents used trucks for some of their freight movement, but less than 9% used rail at all. In 1982, seven times more freight tonnage left Connecticut by truck than by rail.

TREND IN INTERCITY FREIGHT TONNAGE
BY MODE 1960 - 1988



The increase in truck use relative to rail is a national trend as well. Over the past 30 years, national rail tonnage has increased only slightly; truck tonnage, however, has more than doubled.

The over-utilization of trucks for freight transport is primarily caused by federal policy, placing a remedy beyond reach of the state. Congestion, however, continues to be a problem in Connecticut. The Department of Transportation study found that availability influenced choice of mode for transport. By continuing to make rail available to Conn-ecticut businesses, the state may contribute to a rise in its use and a decrease in congestion. In addition, land-use policies that concentrate businesses involved in freight transport would make rail service more economically viable and efficient. Continued dispersal of industrial facilities makes future rail service increases unlikely.

STATE GRANTS

The State of Connecticut has an active Department of Economic Development (DED) which helps towns attract industry by funding initial capital costs of industrial parks. The DED screens its projects for consistency with the State Plan as well as other agencies' goals. However, there is no state goal or commitment for establishing mixed-use development, or for siting the employment centers within reach of transit. To the DED's credit, it has attempted to site industrial parks on rail lines for movement of goods, not people, but no companies took advantage of the rail service. The bias toward trucking is a failure of federal policy that the state alone cannot correct, (See "Focus: Trucks and Trains," p.23.) but the DED could influence commuting patterns by pursuing mixed-use developments and siting with transit service in mind.

Similarly, the Department of Housing attempts to avoid environmental problems in siting state-funded housing, but there is no consistent effort to place the housing where residents can walk, bike, or take transit to employment and shopping centers. Despite a policy in the State Plan that says housing should be placed where transit exists, the Department of Housing funds housing projects where residents are dependent on automobiles for all needs.

THE STATE'S SEWER POLICY

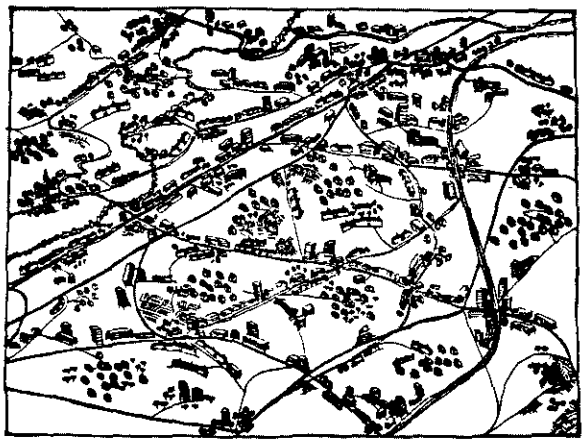
The layout of the state's sewer systems can play an important role in determining the locations of compact developments. The State of Connecticut needs a clearly-defined statewide sewer policy emphasizing maximum use of existing sewers, sewer-avoidance in unsewered areas, and accommodation of clustered development in unsewered, previously undeveloped regions. Some of the tools to implement sewer policy are already in place, including the Department of Environmental Protection's (DEP) statutory authority to review and approve or disapprove all sewer extensions. (Prior to development of a statewide sewer policy, the DEP can, and should, require towns receiving sewer funds to adopt regulations preventing sewer hook-ups in inappropriate areas, except in cases where failures have occurred that cannot be corrected on-site.)

THE STATE'S ROLE IN PLANNING ASSISTANCE

Most Connecticut municipalities utilize traditional planning and zoning practices that do not necessarily serve the overall interests of the state's citizenry. The Intergovernmental Relations Division of OPM, some regional planning agencies, and the Cooperative Extension Service advise municipalities on planning matters, but the state does not fulfill its potential for teaching local officials about innovative practices such as transportation demand management, trip-reduction ordinances, mixed-use zoning, and traditional New England style (clustered) development.

The state, perhaps under the auspices of the proposed Land Use Education Council, through vigorous training programs could transform Connecticut's planning and zoning culture into one that recalls true New England development. Ideally, concentrated training and advice alone could make significant differences, but other steps to encourage towns to adopt better land-use practices would almost certainly be required.

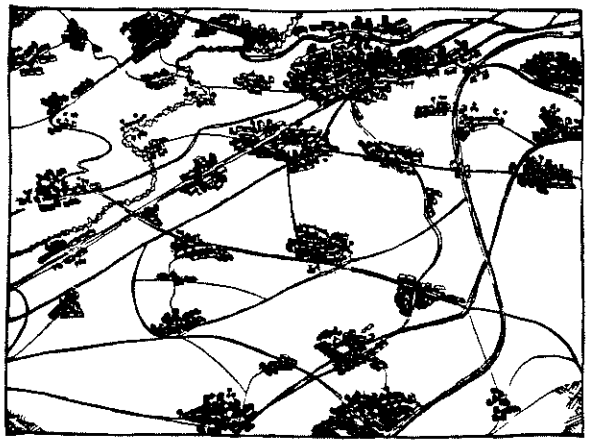
TWO VISIONS OF THE FUTURE



FUTURE #1: Continuation of Current Trends. Employment, housing, and commercial activity continue to spread across suburban and rural communities. The state continues to fund housing where there is no transit, build highway interchanges where there are no communities, and approve access to highways for employment and commercial developments that are almost entirely automobile-dependent. All new development is based on access by automobile, and is too dispersed to be served efficiently by transit. Air pollution levels still violate health-based standards. Road congestion is a way of life. Land is used inefficiently; with large lot subdivisions ubiquitous, developers and residents alike find the costs of land, housing, and infrastructure artificially high, with none of the benefits of open space. Cities, meanwhile, continue to lose population, and empty storefronts mark the loss of commercial life to the suburbs.

A young family in eastern Connecticut moves to the suburban fringe, one of the few places they can afford to buy a house. He drives 20 miles each way to work in a state-assisted industrial park; she drives six in the other direction to her job in a suburban office park just off the highway. On the way, one of them must drive three miles out of the way to drop off their youngest at a day care facility. His drive, which should take 30 minutes, takes 40 to 50 due to congestion in the city, which he only wishes to pass through. Their trips home are marked by several short detours to pick up groceries and their child. This flexibility is so important to them that they would not take a bus or van to work, even if one ran to their place of employment. They are completely dependent on their automobiles. On the weekend, they get in the car for every trip to the food stores, to the video store, even to the park to take a walk. On their way, they leave one town and enter another, though they cannot discern a difference.

FUTURE #2: A Coordinated Application of Transportation and Land-Use Policies. Cities are revitalized centers of commercial and employment activity with efficient transit systems linking them to suburban centers. The suburban centers accommodate compact, mixed-use development accessible to transit -- reminiscent of traditional new England towns and villages. Development is concentrated around the transit terminals, minimizing auto-dependency. Where it is necessary for major commercial development to locate in the suburbs rather than the cities, they are clustered with other commercial and residential centers around efficient transit and road systems. People have more choices to get to where they need or want to go: cars, buses, trains, bicycle and foot paths. There are few state subsidies or approvals of development between the urban and suburban centers. Efficient use of land, altered through close cooperation between the state and municipalities, yields more affordable housing and more open space. Residents breathe clean air.



The young family from Future #1 now lives in a house of the same size closer to the center of their town. They both leave for work in one car, parking at the transit station where he will catch a north-bound train to his job in the state-assisted industrial park, she a southbound train to her job in the office park, which is also served by transit because the developer was required to install station facilities. They leave their youngest child at the day-care center adjacent to the station. Upon their return, they can pick up necessary items in the nearby stores before picking up their child and car. If one has to work late, he or she will take a bus from the transit station or ride with a neighbor, since the houses in their neighborhood are closer together and the newer subdivisions have common carpool lots built by the developers per local ordinances. One of them might choose to drive to save time, though parking will end up costing more than the transit system. On the weekend, they can drive or bike to stores a reasonable distance away or even walk to the convenience store that is attached to their residential development. No need to drive to a park -- they can walk from home to the woodland preserved as part of their open space subdivision. If they feel like a longer walk or a picnic, the transit system runs a shuttle to a large state park on Saturdays. Residents of the nearest city can also take the transit system to the same park, the first opportunity they will have had to do so.

RECOMMENDATIONS

> "The evidence clearly shows that land use change does not necessarily follow transportation investments, even when the dollar value of these investments is large. Rather, availability of developable land, favorable economic conditions, and local political support have been identified as key factors in most studies."
>
> 1986. Genevieve Giuliano. "Land Use Impacts of Transportation Investments" in *The Geography of Urban Transportation.*

The previous sections have addressed the costs of uncoordinated development and how those costs may be exacerbated by state government actions. The only solution to the problem of sprawl is the integration of land-use and transportation. The Council concludes that state actions must be accompanied by local initiatives to reduce the costs of suburban sprawl. Furthermore, state and local actions must be coordinated to ensure their success.

Other states have faced problems similar to those caused by Connecticut's patterns of development. Several have chosen to combat those problems through comprehensive planning at the state and local levels. Some examples of planning legislation in other states are given in the Appendix. The examples include frameworks and incentives for planning and elements required in municipal plans. The Council based its recommendations for planning in Connecticut partially on the lessons learned from these other states. While the states in the Appendix needed to create a planning process from the ground up, much of the framework for planning in Connecticut already exists. The experiences of other states, however, provided valuable examples for the Council.

The following section outlines the Council's recommendation for legislation to guide municipalities and state agencies in planning for their future development. The suggested legislation would reduce the economic and environmental costs of sprawl and ensure coordination between all levels of government.

STATE PLANNING GOALS

The process of planning in Connecticut at all levels of government must be guided by common goals. The goals are meant to be broad and flexible, and to ensure that all planning is based on similar values. (Note: Goals listed below that are enumerated in some form in the State Plan of Conservation and Development 1987-1992 are marked [C&D]; policies enumerated in the General Statutes of Connecticut are followed by a citation.) The Council recommends that the planning process in Connecticut should:

Transportation

a) provide an integrated, efficient and economical transportation system which provides mobility, convenience and safety and which meets the needs of all citizens, including transit-dependent, disabled, and elderly;[C&D]
b) reduce the forced dependency on automobiles and level the upward trend in Vehicle Miles Travelled through the integration of land-use and transportation policies and decisions;
c) pursue a least-cost transportation policy;
d) improve air quality through efficiency of use;
e) discourage public and employer subsidies of Single Occupancy Vehicle trips;
f) require pedestrian and bicycle ways;
g) develop travel corridors to contribute to efficient urban development;

Land Use

a) encourage an aesthetic and efficient mix of living, working, shopping, and recreation areas;
b) prevent urban sprawl and strip development which diminishes the quality of life and availability of land;
c) ensure the suitability of land uses through the establishment of urban growth boundaries;[C&D]
d) promote growth within urban growth boundaries to create compact urban centers;
e) ensure that all development is related to an urban or village center;
f) encourage the use of innovative regulations and techniques to promote orderly growth in appropriate areas;
g) reduce the dependency on automobiles by compacting development and ensuring all employment centers are within reach of public transit;

Energy

a) encourage the efficient use of energy[C&D], especially in transportation;
b) encourage energy-efficient patterns of development;[C&D]
c) reduce pollution;
d) develop renewable sources of energy;[C&D]
e) implement the energy-efficient planning requirements of existing statutes;[8-25b CGS]

Public Infrastructure

a) maximize the use of existing facilities;
b) ensure that the rate of growth does not exceed the ability to provide services or infringe upon level of service standards;
c) provide infrastructure to support development that reinforces planned patterns and discourages sprawl and automobile dependency;

Economy

a) promote economic growth in appropriate areas;
b) promote a diverse and balanced economy;

Housing

a) ensure all citizens adequate and affordable housing;[C&D]
b) ensure convenience of employment and commercial centers;
c) require availability of transit at all housing sites;

Conservation

a) assure for all residents of the state safe, healthful, productive, and aesthetically and culturally pleasing surroundings;[22a-1a(b) CGS]

b) discourage development that impairs the conservation and preservation of historic, scenic, cultural, and archaeological aspects of our Connecticut heritage;[C&D]

c) protect and improve the quality and quantity of water, air, land, wildlife, open space, and other natural resources;[C&D]

d) promote development which is designed to enhance the landscape and exist in harmony with the elements of nature;[22a-1 CGS]

e) encourage policies that promote the retention of agriculture and forest land;[C&D]

Planning

a) make funding, data, and technical assistance for planning available;

b) ensure citizen involvement at all levels of the planning process;

Consistency

a) promote consistency between all levels of government;

b) ensure the implementation of municipal plans of development through zoning and regulations;

c) ensure the reflection of state policies in municipal plans of development;

d) recognize the relationships between these goals and coordinate their achievement.

FOCUS: AESTHETICS

One of the Council's concerns regarding suburban sprawl is the unpleasant appearance of this type of development. Aesthetic considerations deserve to be included in Connecticut's planning goals, as they have been in other states around the nation. Rhode Island, for example, addresses the aesthetics of urban sprawl in its goal in the State Guide Plan to "foster the application of new environmentally sound development patterns which promote compact urban growth while providing more pleasing visual aspects by avoiding a uniform grain of development."

Whether aesthetics alone can justify the use of police power has been addressed in the courts. Zoning ordinances and land-use regulations based solely on aesthetics have been upheld in several states dependent upon the "reasonableness" of the ordinance or regulation. A Massachusetts court deemed aesthetically based regulations to be within the concept of "general welfare" which is in the scope of police powers. (Donnelly v. Outdoor Advertising Board, 369 Mass 206 (1975)) Justice Douglas of the Supreme Court addressed this concept in Berman v. Parker (348 V.S. 26 (1954)). He wrote, "The concept of the public welfare is broad and inclusive.... The values it represents are spiritual as well as physical, aesthetic as well as monetary. It is within the power of the legislature to determine that the community should be beautiful as well as healthy, spacious as well as clean, well-balanced as well as carefully patrolled."

IMPLEMENTING THE GOALS

State Agencies. The General Assembly should take the following specific steps to improve the integration of land use and transportation patterns in Connecticut by all state agencies.

RECOMMENDATION: The General Assembly should amend section 16a-24 of the Connecticut General Statutes to include the aforementioned planning goals (p.27) in the enabling statute of the State Plan of Conservation and Development ("the State Plan").

RECOMMENDATION: The General Assembly should provide the Office of Policy and Management's Comprehensive Planning Division with the resources necessary to enhance coordination among state agencies and municipalities in developing and implementing the State Plan.

1. The Office of Policy and Management (OPM) currently holds meeting, hearings, and workshops to solicit input from state agencies, the public, and municipal and regional planners. As the State Plan's influence is enhaced, however, and there is more interest in its details, OPM will need to establish a formal procedure for extensive *two-way discussion* with municipalities, regional planning agencies, and state agencies.

2. OPM should be prepared and staffed adequately to instruct state agencies and municipalities, where appropriate, in the methods for integrating land-use and transportation in their plans and projects.

RECOMMENDATION: The General Assembly should improve and expand the applications of the State Plan in section 16a-31 of the Connecticut General Statutes by:

1. requiring each state regulatory agency, in reviewing any permit application having land-use implications, to consider the proposed project's consistency with the State Plan and its goals;

2. requiring all state agencies, when approving grants and construction projects, to adhere more closely to the State Plan and its goals, allowing state funding of sprawl-inducing and automobile-dependent development only where absolutely necessary;

3. requiring state agencies to develop functional plans which shall a) be consistent with the State Plan and its goals and b) consider any existing regional, local, or other state agency functional plans.

RECOMMENDATION: The General Assembly should require the Department of Transportation to work with the private sector to decrease Vehicle Miles Travelled and Single Occupancy Vehicle commuter trips.

State-Local Cooperation. State agencies, in creating and encouraging patterns of development conducive to the desired transportation system and efficient use of land, are extremely important, but not omnipotent. It is still possible for a municipality to encourage development patterns which are not compatible with the state's goals, and which will require future actions that are inconsistent with the State Plan (i.e. future highway expansion where proper planning would have led to transit).

RECOMMENDATION: The General Assembly should establish an administrative procedure for ensuring the consistency of municipal plans of development with the State Plan. The procedure should include the following elements:

FOCUS: POTENTIAL PITFALLS

Wherever one finds traffic congestion and poor air quality in this country, one finds public officials looking for solutions. Repeatedly, the central idea of mass transit/land-use integration comes to the fore. Several studies show, however, that it is dangerous to expect too much from such solutions. Essentially, overhauling transportation and land-use policies can help to keep the traffic/air-quality situation from getting worse, but will not do much in the short run to reverse the impacts already made.

Two studies seem particularly useful in pointing out the need to address the transportation/land-use/air-quality problem comprehensively. In the first, conducted by the Denver Regional Council of Governments, analysts projected traffic and air quality under two different future scenarios: growth spread around highways, as planned, and growth clustered around new rail lines. Surprisingly, air quality differed little in the two scenarios. The reasons are that the rail line could not, during the short time frame of the study's projections, reverse the existing congestion and, more importantly, that total automobile trips increased even as work trips declined. People in the computer models would take transit to work but use a car for every other kind of trip. The study shows the importance of having a mix of land uses accessible to transit.

The second study of interest was a 1989 survey of Connecticut residents' attitudes toward energy conservation, conducted for the Office of Policy and Management. Urban workers who drove alone but had access to buses appeared to be no more receptive to switching to transit than workers from towns with no transit. However, a large percentage of all residents would switch if the cost of driving became more expensive. Conclusion: efforts to increase transit's share of residents' trips must be coordinated with employer parking management strategies to be successful. The important role of the private sector is obvious.

1. A requirement that municipal plans of development include specific elements, including all of the following (Note: Many of these elements are required or suggested currently by Section 8-23 of the Connecticut General Statutes; mandatory elements are marked ^{R} and optional elements are marked ^{O}):

    * land use^{R}: agricultural and forest land
      open space and recreation^{O}
      urbanization
      coastal management
    * transportation: mass transit^{O}
      traffic circulation
      parking
    * conservation: natural resources
      historic, cultural, archaeological resources
      scenic resources
    * energy^{O}
    * public utilities, facilities, and infrastructure^{O}
    * economic development^{R}
    * housing^{R}
    * implementation: land-use ordinances and regulations^{O}
    * provisions for state development of infrastructure, public utilities and facilities.

2. Opportunities for two-way discussion of consistency. Municipalities should be required to work toward consistency with the State Plan. OPM should provide advice, and should listen to municipalities' arguments for changing the State Plan to reflect the municipal plans, where appropriate.

3. An important role for regional planning agencies. Regional planning agencies should provide the first level of coordination among municipalities. They should work with the municipalities to ensure consistency with regional plans, the State Plan, and adjacent municipalities' plans. Under this arrangement, regional planning agencies would forward to OPM consistency reviews of municipal plans. Minor inconsistencies would be worked out at the regional level; major inconsistencies, if intractable, would be discussed with OPM or appealed (see below).

4. Strong public participation at all levels.

5. Substantial incentives for encouraging state-local consistency. The state should provide incentives to municipalities to encourage adherence with the State Plan and its goals; possible incentives include:

    * funding for the preparation of consistent municipal plans of development;
    * requiring municipal plans of development to be consistent as a condition of eligibility for selected state infrastructure, development, and land acquisition grants;

FOCUS: WHAT OTHERS ARE SAYING ABOUT TRANSPORTATION, LAND USE, AND COMPREHENSIVE PLANNING IN CONNECTICUT

"There is a growing awareness in Connecticut that highway congestion is a land use as well as a transportation problem, and that a joint transportation/land use solution ultimately may be appropriate... The ability of the transit system, by itself, to alter land use patterns, however, is limited; actions by other state and local agencies are required if this objective is to be achieved."

ConnDOT. *Statewide Transit System Plan.* 1990.

"The State Plan of Conservation and Development, currently being revised for re-adoption by the legislature in 1992, should become a real guide to state grants, construction, regulatory and other actions affecting future development patterns. In addition, there should be state-level review of development of regional impact to ensure that regional and state environmental, energy, economic and social impacts are duly considered, especially to minimize urban sprawl and to protect valuable aquifers, wetlands, slopes and ridges."

Connecticut Forest and Park Association, Inc. *1991 Agenda for State Action.*

"A major cause of decentralized growth is the widespread use of large-lot residential, commercial strip, and other conventional zoning techniques by many suburban and rural towns. This reflects a lack of consistency between local, regional, and State land-use plans, and between municipal land-use plans and zoning and subdivision regulations. To respond to this challenge, Connecticut needs a more effective, coordinated plan for managing future growth -- one which not only maintains land-use responsibility at the local level, but also requires that municipalities be accountable for their regulatory actions.... A particular concern is the current lack of consistency between the State C&D Plan and the State Transportation Plan; better coordination between these two plans will benefit all Connecticut residents."

Regional Plan Association/Connecticut. *Restructuring Connecticut's Land Use Management System.* 1990.

"Not only is recruitment of middle managers and other employees made more difficult and expensive...by escalating housing costs, but the associated problems: the costs related to employee commuting, traffic congestion and employee discontent threaten many state corporations with the loss of competitive advantage. Some firms already determined to leave the state or to expand only in other states.... The Commission further recommends that the state establish the Land Use Education Council as a permanent body to coordinate land use education in the state, and that the state create and fund an office of Land Use Education to coordinate the activities of the Council. The Commission believes that land use planning can be utilized most efficiently in support of affordable housing objectives only when land use education is intelligently packaged and made available to all towns and land use commissioners."

Report and Recommendations of the State of Connecticut Blue Ribbon Commission on Housing. 1989.

* requiring state agency development activities to be consistent with municipal plans of development where the municipal plans have been found to be consistent with the State Plan;
* enabling the collection of impact fees (i.e., fees collected from developers to compensate for the public costs of serving the development) by municipalities to encourage the efficient use of existing infrastructure and maintenance of level of service standards.

6. State approval. When a regional planning agency submits a regional or municipal plan to the state planning agency, the state would approve the plan when it is deemed to be consistent with the State Plan and its goals and any existing state agency or adjacent municipal plans.

7. Appeals procedure. When the state does not find a regional or municipal plan to be consistent, the regional planning agency or municipality could appeal to a plan review board, designated specifically to hear such appeals.

8. Implementation of municipal plans. Subsequent to a finding of consistency, the municipality would revise land-use ordinances and regulations to implement the municipal plan of development.

CONCLUSION

In this report, the Council on Environmental Quality describes the reasons for integrating transportation and land-use planning at all levels of government, and outlines the necessary procedures for improving inter-agency and inter-governmental consistency in planning. Many of the details will require considerable deliberation by the General Assembly; among the details to be determined are which agency or agencies shall be responsible for developing specific guidelines for local planning, reviewing state agency and municipal plans, hearing municipal appeals regarding consistency, and providing technical assistance to agencies and municipalities. Also, questions of funding and incentives must be addressed.

Regardless of the details, the need for legislative attention to the problems of transportation and land-use planning is urgent. Transportation and land-use decisions are made daily at the state and local levels. Unless state agencies and municipalities begin to coordinate their goals and plans more decisively, Connecticut will be left with ever-increasing sprawl, congestion, air pollution, and a pattern of development that will leave our descendants no options.

"The reform of our land regulatory systems is a fascinating challenge that will continue to occupy us for many years to come."
1971. Fred Bosselman and David Callies, The President's Council on Environmental Quality. *The Quiet Revolution in Land Use Control.*

APPENDIX: COMPREHENSIVE PLANNING IN OTHER STATES

FLORIDA

Florida's State Comprehensive Planning Act of 1972 (Ch. 186, F.S.) and Local Government and Comprehensive Planning and Land Development Regulation Act of 1985 (Ch. 163, Part II, F.S.) encourage coordinated planning between all levels of government based on a State Comprehensive Plan (Ch. 187, F.S.). The 1972 Act requires the Executive Office of the Governor to prepare a State Comprehensive Plan. The 1985 Act requires municipalities and regions to prepare plans, consistent with the state plan. The local government submits its plan to the Department of Community Affairs (DCA), which reviews the plan for compliance with the provisions of the Acts and the Minimum Criteria for the Review of Municipal Comprehensive Plans (Rule 9J-5, F.A.C.) and approves or disapproves the plan. The Division of Administrative Hearings hears appeals of DCA decisions. After the municipal plan is approved, land-use regulations are to be amended to be a means of implementing the local plan. State agencies and Regional Planning Councils prepare plans in accordance with the State Comprehensive Plan and submit them to the Governor for review.

GEORGIA

The Georgia Planning Bill of 1989 (H.B. 215) was designed to "provide a framework to facilitate and encourage coordinated, comprehensive state-wide planning and development at the local, regional, and state levels of government." The Bill establishes a "bottom up" procedure for planning. Local governments prepare plans and land-use regulations in accord with the minimum standards and procedures established by the Department of Community Affairs (DCA) and submits the plan to the Regional Development Center (RDC) for review. The RDC may recommend that the DCA issue a Letter of Plan Approval to the submitting government. The DCA may then certify the local government as a "qualified local government." RDC's submit regional plans to the DCA for review as well.

The Governor's Development Council, composed of senior officials from several branches of state government, develops the state comprehensive plan, which reflects the state's long-term goals and their implementation, based on the local plans and with the assistance of the DCA.

MAINE

Maine's Comprehensive Planning and Land Use Regulation Act of 1989 is intended to ensure "predictable, timely and cost-effective land use decision making that is coordinated and consistent between state government and local governments." Municipalities are required to develop a local growth management program and submit it to the Office of Comprehensive Land Use Planning (OCP).

The OCP collects the comments of the Regional Planning Council and state agencies and performs its own review based on the plans' consistency with the goals and guidelines of the Act. A municipality is not required to incorporate the comments of the OCP unless it requests certification for consistency with the Act, but must adopt a program with or without certification. Following the adoption of a local growth management program, the municipality is required to adopt implementation measures, including zoning ordinances. State agencies are required by the Act to report on how they incorporate the goals into their planned activities to the OCP.

NEW JERSEY

The New Jersey State Planning Act of 1986 (NJSA 52:18A-16 et al.) creates the State Planning Commission and requires the creation of the State Development and Redevelopment Plan. The Office of State Planning assists the Commission in the development of the Plan by creating a preliminary plan and carrying it through cross acceptance. The cross acceptance process (NJAC 17:32) is a "comparison of planning policies among governmental levels with the purpose of attaining compatibility between local, county, and state plans." Cross acceptance is initiated by the release of a preliminary State Plan by the Commission. The first phase of the process involves the comparison of the state plan to municipal plans and regulations. Counties file reports with the Commission raising objections to the State Plan and suggesting resolutions. Phase two is the negotiations phase during which the state compromises with municipalities regarding the provisions of the plan. Following the release of a draft final plan, public hearings are held as part of the issue resolution phase, which concludes cross acceptance. The Commission issues a final plan and repeats the cross acceptance process every three years.

There is no mechanism for enforcing the implementation of the plan by municipalities; instead, the state relies on "public comprehension and support" to carry out the provisions of the plan.

OREGON

Oregon's statewide planning program is intended to encourage conservation, development, economic growth, reduction of the public costs that result from poorly planned development, and coordinated planning by local and state governments. The program originated in 1973 with Senate Bill 100, the Oregon Land Use Act (ORS Ch. 197). Under SB 100, cities and counties prepare plans and land-use regulations according to the state planning goals (OAR 660, Div. 15). The locality submits the plan to the Department of Land Conservation and Development, which reviews the plan for compliance with the state planning goals and prepares a report for the governor-appointed Land Conservation and Development Commission. The Commission may issue an "acknowledgement of compliance with the State-wide Planning Goals." A conglomeration of 278 local plans stands in place of a state comprehensive plan. State agency plans must be compatible with the state planning goals and local plans.

RHODE ISLAND

The Rhode Island Comprehensive Planning and Land Use Regulation Act of 1988 specifies the essential components of local plans and strengthens consistency among state policies, local plans, and local zoning. The State Guide Plan is made up of a number of plans adopted over time by the State planning Council, chaired by the Director of the Department of Administration. Cities and towns are required to prepare for their future land use through the preparation of a local plan. The local plan must be consistent with the goals and provisions of the Act, approved plans of adjacent municipalities, and the State Guide Plan. The municipality submits the plan to the Director of Administration with existing land-use regulations. The Director solicits comments on the plan from state agencies and contiguous municipalities and approves or disapproves the plan. The plan becomes effective upon approval by the Director. The State Comprehensive Plan Appeals Board hears appeals of the Director's decisions. State agencies are required to submit reports to the Director describing how their planned activities incorporate the finding, intent, and goals of the Act.

LOCAL PLAN ELEMENTS

	FL	GA	ME	OR	RI	VT
Land Use		x	x		x	x
agriculture/forestry		x	x	x		
coastal management	x					
open space	x	x	x	x		
recreation	x	x	x	x	x	
urbanization				x		
Transportation		x	x	x	x	x
mass transit	o					
parking	o					
traffic circulation	x				x	
Conservation	x					
cultural resources		x			x	
historic resources	o	x	x	x		x
natural resources		x	x	x	x	
rare natural areas		x	x	x		x
scenic resources	o	x		x		x
Energy						x
Public Infrastructure	x	x	x	x	x	
Economy	o	x	x	x	x	
Housing	x	x	x	x	x	x
Implementation	x	x	x		x	x

o = optional

VERMONT

Vermont's Act 200 of 1988 (24 V.S.A. 117) strengthens the integration of planning on the local, regional, and state levels. This is accomplished through the establishment of twelve planning goals and a framework for ensuring the consistency of local, regional, and state agency plans with those goals and with eachother. Towns are not required by Act 200 to develop plans or to seek approval of their plans, but if a town so chooses, it may submit its plan to its Regional Plan Commission (RPC) for review. The RPC approves the plan if it is consistent with the state planning goals, compatible with any existing regional plan, and compatible with any approved municipal plans. The RPC then files the approved town plan with the Department of Housing and Community Affairs.

RPC's and state agencies are required to develop plans as well that are consistent with the state planning goals and compatible with any approved municipal plans. RPC's and state agencies submit their plans to the Council of Regional Commissions for review. The Council reviews regional and agency plans for consistency and compatibility and hears appeals of RPC decisions regarding local plans.

INCENTIVES

The planning processes outlined by legislation in the states discussed above include incentives designed to encourage towns to participate in the planning process.

* Funding and technical assistance is provided for planning in all six states.

* State funding for infrastructure, housing, land acquisition, and public facilities is dependent upon plan approval in Georgia and Maine.

* State agency development activities must be consistent with local plans in Florida, Oregon, Rhode Island, and Vermont.

* Land use regulations, zoning ordinances, and impact fee ordinances must be consistent with the local plan to be legally enforceable in Florida and Maine.

* Financial assistance for the defense of land use ordinances is provided to towns with approved plans in Maine.

* Municipalities that do not develop plans must adopt a plan prepared by the regional or state planning agency in Florida and Rhode Island.

* Injunctions are issued to limit development in localities without approved plans.

"It is both fascinating and depressing to realize that most of the major urban problems reviewed by these groups were clearly identified and proposals were advanced for their solution by the national Resources Committee in its 1937 study.... If the important recommendations put forward then had been seriously considered and acted on we would not now be faced with a situation that has escalated almost beyond remedy."

1970. *Land Use Policies*: Papers presented at the land use policies short course held at the 1970 American Society of Planning Officials National Planning Conference.

PART III

1990 ACTIVITIES OF THE C.E.Q.

1990 ACTIVITIES OF THE COUNCIL ON ENVIRONMENTAL QUALITY

Since 1985, the Council has progressed along a carefully charted course: in-depth evaluations of priority state environmental problems, methodical review of state agency construction projects, and thorough investigation of all citizen complaints. Often, a single case has involved all three functions. The year 1990 was particularly productive. Highlights of CEQ activity include the following.

-- In April, 1990 the Council released its annual update on the progress of the state toward its environmental goals for the year 2000. This Environment 2000 responsibility, assigned to the Council in 1987, has prompted continued study for ways to improve the state's procedure for setting goals and measuring progress.

-- In September, 1990 the Council issued a Special Report entitled "Recommendations for Improving State Environmental Regulation of Large Traffic Generators." It was prompted by complaints from two citizen groups, a municipality, and a business about the state's permitting procedures for malls and other large generators of traffic. After considerable investigation, the Council concluded that, unlike at present, large traffic generators should be subject to environmental impact review and regulation. The Council offered specific recommendations for change to statutes and administrative procedures.

-- In December, 1990 the Council released another Special Report, "Recommendations for Improving Line-Clearance Programs." This report concluded the Council's investigation of possible problems brought to its attention by citizens in 1989. After considerable discussion, the Council issued several recommendations for improving the qualifications of persons conducting line-clearance (tree-trimming) work for all utilities, municipalities, and state agencies, and also for revitalizing the statewide corps of municipal tree wardens.

-- The Council reviewed all Environmental Impact Evaluations and Findings of No Significant Impact prepared by state agencies. Because of the record number of such documents submitted (29), and staff shortages (vacancies), the Council was unable to comment on all of them.

-- The Council investigated more than forty complaints (in addition to uncounted routine requests for information and referrals), several of which led to significant remedial action. Examples include a large boat-launch facility and a bridge replacement project that were both proposed without having been evaluated pursuant to the Connecticut Environmental Policy Act. (The former is now being evaluated, while the latter project was re-designed to avoid destruction of wetlands and community-owned open space.) As usual, many complaints called attention to possible defects in state regulations or procedures which the Council plans to continue investigating.

The Council looks forward to maintaining productive relationships with Governor Lowell Weicker, the General Assembly, state agencies, and citizens in working toward our common goal of environmental excellence for Connecticut.

CEQ Members

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Dana S. Hanson. Resident of Rocky Hill. Executive Director, Capital Region Council of Governments, 1968 to present. Former Manager of Regional Affairs Department, Greater Hartford Chamber of Commerce. Former Executive Director, Cambridge (Massachusetts) Civic Association. Board member, National Association of Regional Councils (1982-'87). Board member, Riverfront Recapture, Inc. (1985 to present). Board member, CRRA Mid-Connecticut Project (appointed 1988). Board member and Secretary/Treasurer of Capitol Region Forum for the Future (1986 to present). Member, Regional Planning Association of Connecticut. Former member, Bolton School Board.

Astrid T. Hanzalek. Resident of Suffield. Connecticut General Assembly, 1970-1980. Chairman, Connecticut River Watershed Council. Board of directors, Connecticut Forest and Park Association. Board of directors and co-founder, Suffield Land Conservancy. Trustee of the Connecticut Energy Foundation. Board of directors, Connecticut Water Company. Vice-president, Antiquarian and Landmark Society. Member, Bradley International Airport Commission. Former Vice-chairman, Greater Hartford Chapter, American Red Cross. Corporator, Newington Children's Hospital. Vice-chairman, State Ethics Commission.

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Mary B. Walton. Resident of Griswold. Organizer of Save Our State Committee, involved in major environmental issues of eastern Connecticut. Recipient, U.S. Environmental Protection Agency Region I Environmental Award, citizen activist category. Vice-chairman, Southeastern Connecticut Regional Planning Agency (Delegate, 20 years): chairman of finance and personel committee, former chairman of program committee, member of reference committee, and former delegate to Regional Planning Association of Connecticut. Represents Town of Griswold on Southeastern Regional Resource Recovery Authority. Life member, The Nature Conservancy.

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