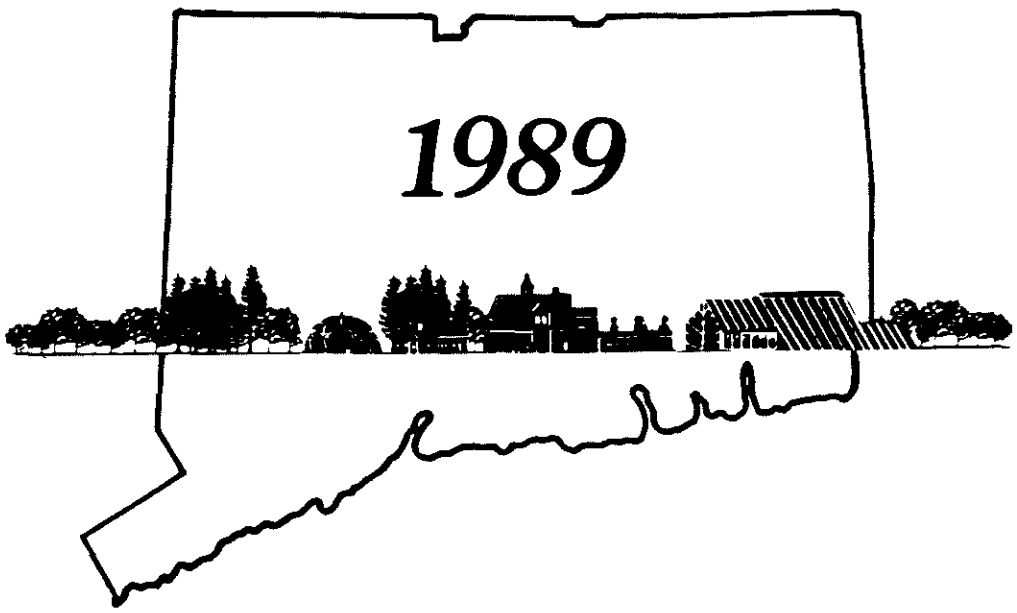
# CONNECTICUT ENVIRONMENT REVIEW

*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.

COUNCIL MEMBERS -- 1989

Gregory A. Sharp, Chairman
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Woodbridge

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Mary Walton
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Dana Waring
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Karl J. Wagener
Executive Director

*STATE OF CONNECTICUT*

# COUNCIL ON ENVIRONMENTAL QUALITY

January 24, 1990

The Honorable William A. O'Neill
Governor of Connecticut
State Capitol
Hartford, Connecticut 06106

Dear Governor O'Neill:

I am pleased to present the Annual Report of the Council on Environmental Quality for the year 1989.

A major undertaking this year was an examination of the financial resources available to the Department of Environmental Protection to fulfill its considerable responsibilities. During its 19-year history, the Department's duties clearly have expanded faster than its budget. Moreover, federal funding of Connecticut's environmental programs has declined substantially, and the Council believes the worst federal cuts are yet to come. To meet the public's demand for a clean environment and a fully-functioning Department of Environmental Protection, more state-funded staff and resources will be required. The Council offers several recommendations for making that money available over the next three years.

As in the past, the Council has summarized briefly the status of Connecticut's air, water, land, and wildlife in the six-page Connecticut Environmental Quality Index.

Last year's report included the Council's first review of progress toward the goals of "Environment 2000: Connecticut's Environmental Plan," as required by P.A. 87-142. This year, the Council decided to issue the updated Environment 2000 evaluation in an expanded, supplemental report at a later date. You can look forward to receiving that report by Earth Day, April 22.

If you desire more information on any issue in this report, the Council stands ready to assist you.

Very truly yours,

Gregory A. Sharp

Gregory A. Sharp
Chairman

PHONE
STATE OFFICE BUILDING • HARTFORD, CONNECTICUT 06115

# CONTENTS



The annual Environment 2000 Progress Report, required by P.A. 87-142, will be published separately, to coincide with the 1990 Environment 2000 Conference.

# PART I

# EMERGING ISSUES

# EMERGING ISSUES

In "Emerging Issues," the Council on Environmental Quality highlights important issues which inevitably will confront the State of Connecticut in the next two years. In this section the Council also reviews progress toward some previous CEQ recommendations.

## EARTH DAY 20

The twentieth anniversary of Earth Day is an excellent occasion for all of us -- public officials and citizens alike -- to reconcile our desire for a better environment with 1) our financial commitment to environmental protection and 2) our day-to-day habits which put unnecessary pollutants into Connecticut's air, land, and water. Earth Day 20 festivities will help us to examine and improve our personal efforts to recycle our garbage, minimize use of our automobiles, reduce our need for pesticides, and conserve energy resources. Citizens will have opportunities to ask elected officials and candidates at all levels of government for specific pledges to fortify environmental protection programs, and to examine officials' voting records for fulfillment of those pledges.

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## PUBLIC TRUST LANDS

Last year, the Council on Environmental Quality recommended that the state collect rent from persons who place private structures on public trust (submerged) lands. (For an update on that recommendation, see pp. 14-15).

Independent of the leasing issue, an important question came to the fore in 1989: To what extent is the Department of Environmental Protection (DEP) authorized to grant free, exclusive use of state-owned public trust lands to commercial enterprises, in particular those enterprises which are not traditional exercises of a riparian landowner's right to gain access to deep water? State statutes authorize the Commissioner of Environmental Protection to regulate the placement of structures in tidal and navigable waters, but a question remains about who, if anyone, can convey exclusive rights to use public trust lands. The issue was raised by conservation organizations at public hearings concerning the proposed placement of a restaurant in a state-owned river. In a lawsuit filed in October, the Connecticut Fund for the Environment petitioned the Superior Court for a declaratory ruling. Regardless of the judicial outcome, the General Assembly would be the best forum for discussing the private use of lands owned by the state in trust for the public.

AIR QUALITY

Action in 1989 by Connecticut and other northeastern states to tighten automobile emission standards helped push Congress to follow suit. In the absence of federal leadership, Connecticut must continue this take-charge approach toward improving its air quality which, because of the state's geographical location and traffic congestion, still ranks among the nation's worst.

Several of Connecticut's next steps are mentioned in Part II (p. 8). Two additional actions can be taken immediately to address longstanding citizen discontent:

(1) Testing of diesel trucks -- Studies are being completed which will enable Connecticut to initiate testing of diesel vehicles for particulate emissions. The Council recommends testing heavy-duty vehicles, which emit the bulk of diesel particulates, by 1991. Private fleets should be tested, and the state should provide the model by regularly testing its own fleets for compliance.

(2) New odor regulations -- Years of work by environmental groups, industry representatives, and DEP staff yielded a compromise proposal for new odor regulations. Public hearings were held in December, 1989. When implemented fully, they should bring regulatory relief to thousands of citizens subjected to chronic, localized odorous emissions from industries.

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OIL SPILLS;
GAS PIPELINES;
GLOBAL WARMING;
RADIOACTIVE WASTE

A common thread connects oil spills, proposed gas pipelines, global warming, and low-level radioactive wastes: they are all consequences of Connecticut's demand for imported, non-renewable energy.

Oil -- In the wake of major oil spills in Alaska, Rhode Island and elsewhere, the Department of Environmental Protection reported to Governor O'Neill on the status of oil spill preparedness in Connecticut. This state has developed a workable response system based on cooperation among the DEP, oil industries, commercial oil spill contractors, fire departments, and other parties. The DEP has

recommended moderate improvements in equipment and inspection, to be funded through industry fees. The amount of oil being transported through Connecticut harbors (currently 6 billion gallons a year) will be reduced only when demand for oil is reduced through conservation or replacement with other fuels.

Gas -- The Federal Energy Regulatory Commission released a draft Environmental Impact Statement for the proposed Iroquois Natural Gas Transmission Line in 1989. Many western Connecticut citizens in the path of the pipeline object to it. Like the oil in our ports, the gas is being imported to meet anticipated demand (here and in New York).

Global Warming -- Burning oil, gas and other fuels releases carbon dioxide into the atmosphere, which in turn traps heat from the earth that would otherwise be lost to space. Scientists expect the temperature of the earth to rise; as polar ice caps melt, sea level will rise, flooding coastal lands. To combat global warming, it will be necessary to reduce combustion of conventional fuels.

Low-level Radioactive Waste -- Connecticut ranks third among the states in the percentage of electricity generated by nuclear power (65% in 1987). Only a relative few citizens concerned themselves with the low-level radioactive waste when it was being shipped southward for disposal. In 1990, Connecticut must select a site in the state for disposal of low-level radioactive waste. The Council supports establishment of a long-term storage disposal site in Connecticut, and notes that the need for a radioactive waste site, is -- like oil spills, pipelines, and global warming -- largely a by-product of citizens' demand for energy.

It might appear that Connecticut must "pick its poison" in trying to meet its energy demands. There is, however, a way to supply energy to an expanding economy that is free of environmental damage: energy conservation, including energy-efficient technology.

STATE LANDS

For several years, the Council lamented the absence of comprehensive state park and forest management plans. In 1989, the Department of Environmental Protection initiated an interdisciplinary planning program. Using Hurd State Park as a model, planning staff is integrating management goals of various DEP bureaus (parks, forests, wildlife, etc.) into a master plan. If successful and if funds are made available, similar plans will be developed for other parks. The Council calls favorable attention to this initiative, as the absence of master plans has contributed to complaints from park-users who were not expecting to encounter logging, hunting, and road development.

Also in 1989, the DEP decided to designate some segments of the Blue-blazed Trail System as Scenic Trails, to reduce conflicts between hikers and forestry practices. The "Scenic Trails" idea was initiated by a single citizen, who worked with the Council, the DEP, and conservation groups, particularly the Connecticut Park and Forest Association, to move the idea forward.

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STATE PLANNING; GROWTH MANAGEMENT; SEWERS

The State Policies Plan for the Conservation and Development of Connecticut is updated periodically by the Office of Policy and Management and ratified by the General Assembly. A set of planning guidelines, the Plan is intended to lead state agencies, acting individually, to produce a coordinated, efficient pattern of state-sponsored development. Adherence to the Plan prevents one agency's project from adversely affecting the plans and goals of another agency. In recent years, several agencies have proposed projects which would be inconsistent with the Plan. State agencies should renew their commitment to state-wide policies and guidelines in the State Policies Plan for the Conservation and Development of Connecticut.

The state should strengthen its commitment to growth management, the process by which states and municipalities work together to yield mutually agreeable development. In addition to general growth management principles, the state should adhere closely to its principles of sewer avoidance, and avoid funding those sewers which would stimulate development in areas best suited to agriculture, forestry, and water supply.

POLLUTION REDUCTION

Governor William A. O'Neill has joined other New England governors in proposing elimination or reduction of four toxic metals in packaging. The metals end up as unnecessary contaminants in incinerator ash or landfill leachate. Reducing or eliminating these pollutants at their source would be consistent with an important lesson learned in the 1970s and 1980s. A number of environmental analysts have concluded that the most effective pollution control efforts of the past two decades were those which eliminated specific pollutants. Examples include a ban on the use of DDT and certain other pesticides in North America and the elimination of lead from gasoline.

BIOTECHNOLOGY

Unlike Connecticut, most states have considered and/or adopted legislation concerning the release of genetically-altered organisms into the environment. The most common type of state legislation requires a company to notify the state of its intent to release any such organism. The impetus for such legislation has been public reaction to sudden announcements of impending releases. The General Assembly should consider the appropriateness of legislation now to avoid emergency legislation when the first release occurs.

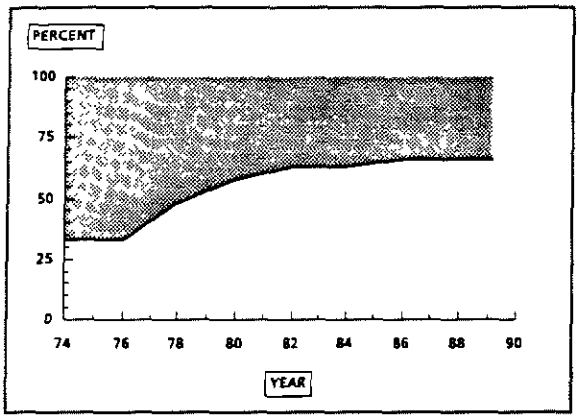
# PART II

# CONNECTICUT ENVIRONMENTAL QUALITY INDEX

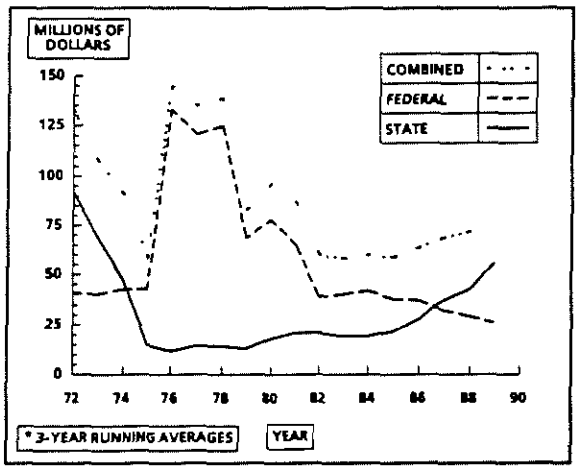
# RIVERS, STREAMS and LAKES

## LONG-TERM TRENDS

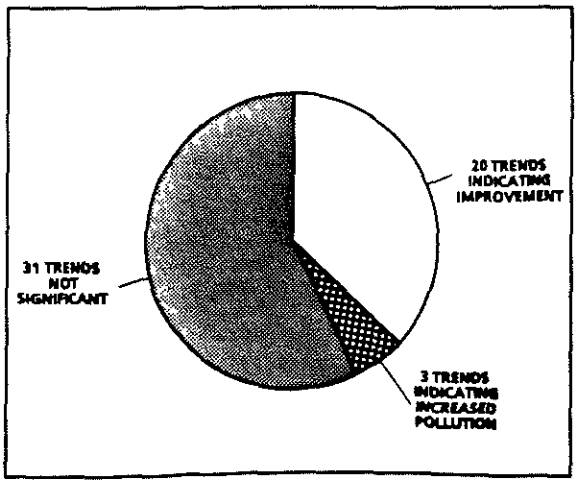
### PERCENTAGE OF CT'S MAJOR RIVERS AND STREAMS CLASSIFIED AS FISHABLE AND SWIMMABLE




### SEWAGE TREATMENT PLANT CONSTRUCTION FUNDS IN REAL (1989) DOLLARS*




### HEAVY METAL CONCENTRATIONS IN SELECTED STATE RIVERS 1974-1989




## KEY ISSUES

■ River quality is stable, but non-point source pollution could compromise sewage treatment investments. Completion of the Suffield sewage treatment plant (STP) in 1989 marked the final installation of secondary treatment for all Connecticut STPs. While state Clean Water Fund investments to upgrade STPs and antiquated sewer systems will continue to yield improved water quality, those gains could be offset by unmitigated non-point pollution sources such as agricultural, urban, and construction runoff. In 1989, the Department of Environmental Protection (DEP) adopted a comprehensive plan for reducing the impact of non-point source pollution on Connecticut's surface waters, which will require state and municipal cooperation. The DEP's embryonic River Management Program has the potential to protect the state's substantial investments in water quality by helping to coordinate non-point pollution control programs, in addition to addressing competition for water resources, cumulative impacts, and land acquisition in river corridors. **A successful River Management Program will require financial commitment.**

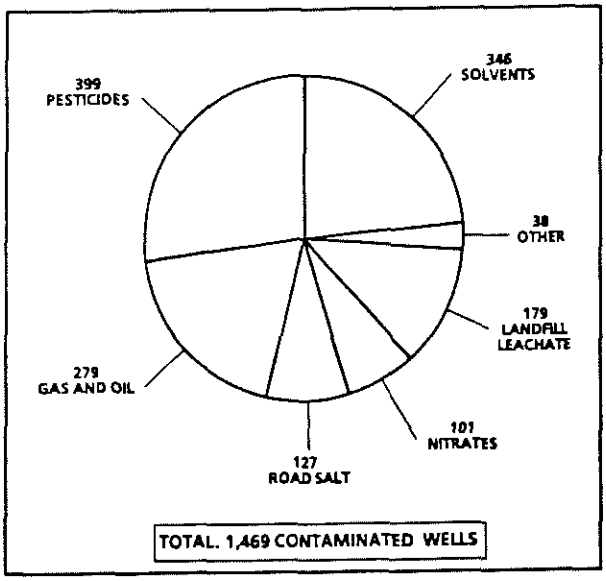
■ Trout fishermen and DEP staff have reported that current water diversion statutes are inadequate to protect small streams. The Water Diversion Policy Act should be amended to eliminate exemptions for ground water withdrawals and stream diversions in the upper reaches of watersheds, where streams are typically small and any diversion can be significant. Permits should also be required for developments involving many small wells with cumulative withdrawals exceeding 50,000 gallons per day. In addition, **unauthorized and unregistered diversions are numerous and cannot be addressed adequately without increasing enforcement staff for the DEP's water diversion control program.**

■ Long-term trends in heavy metal concentrations indicate improving conditions in five of Connecticut's most degraded rivers. New DEP data analysis for six toxic metals at nine monitoring stations reports 20 trends (of 54 total) which indicate decreased pollution levels since 1974. In 1990, the DEP plans to release long-term data from 39 monitoring stations in 23 rivers and estuaries.

# GROUND WATER

## LONG-TERM TRENDS

### CONTAMINATED WELLS IN CT REPORTED FROM 1978 - 1989

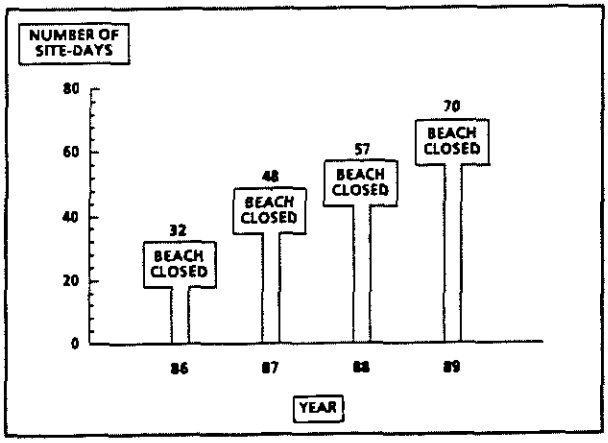



## KEY ISSUES

■ Leaking underground storage tanks are an increasing source of well pollution. The DEP estimates that 80 percent of underground storage tanks in Connecticut are composed of unprotected steel and that 20,000 may be leaking or will leak soon. With one-third of Connecticut's population dependent on ground water for drinking supplies, underground petroleum storage tanks 20 years or older are now required to be replaced with corrosion-resistant tanks. Current regulations, however, exempt residential underground heating oil tanks. Due to their abundance and the difficulty in rectifying leaks below buildings, these tanks were determined in a 1988 national study to present a serious threat to ground water-based drinking supplies in residential areas. **In order to prevent costly petroleum leaks, all underground heating oil tanks should be regulated.**

# LONG ISLAND SOUND

### COASTAL BEACH CLOSINGS DUE TO SEWAGE CONTAMINATION



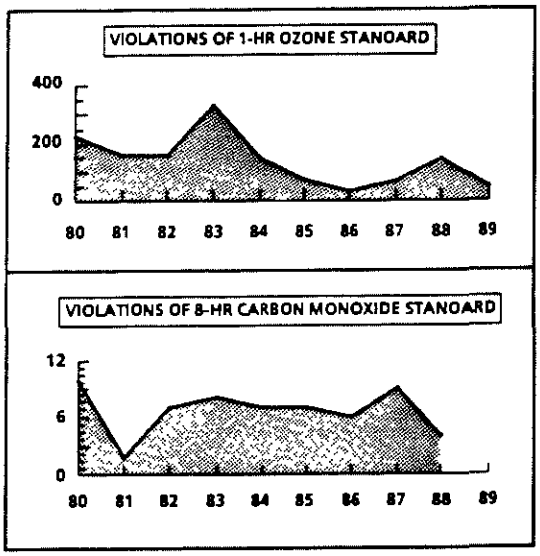

■ Raw sewage spills and overflows from combined storm and sanitary sewer systems -- not medical waste -- are responsible for increased beach closings. The rising trend in beach closings, however, may be in part a result of more rigorous water quality testing.

■ Formerly productive coves and embayments, degraded by highway and railroad structures, should be restored using transportation funds. At least 13 of Connecticut's coves and estuaries which yielded abundant catches of fish and shellfish a century ago are now smothered in acidic, malodorous mud, the result of tidal flow restrictions created by highway and railroad causeways. Stonington's Quiambaug Cove, for example, was formerly the most productive flounder fishery in New England and would be a prime pilot restoration project. The DEP's Coves and Embayments program, initiated in 1987, lacks the funds necessary to restore tidally-restricted coves for commercial and recreational uses. **Transportation funds should be made available to conduct a complete inventory and restoration plan for all degraded estuaries.**

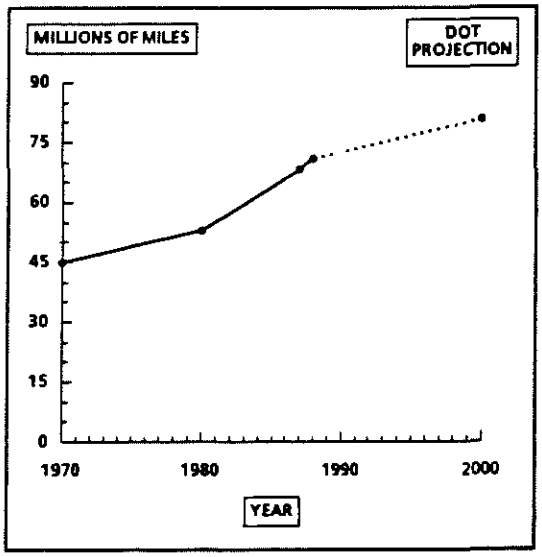
# AIR QUALITY

## LONG-TERM TRENDS

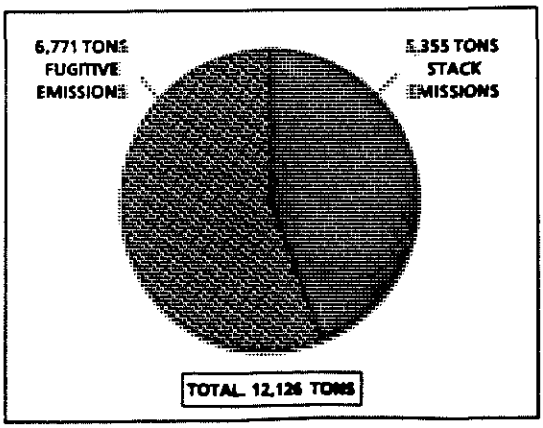
### VIOLATIONS OF AMBIENT AIR QUALITY STANDARDS




### DAILY VEHICLE MILES TRAVELLED IN CT




### CT HAZARDOUS AIR EMISSIONS REPORTED IN 1987




## KEY ISSUES

■ Ozone and carbon monoxide are the only federal ambient air quality standards which are violated chronically in Connecticut. Automobiles are the largest source of ozone-forming hydrocarbons and carbon monoxide. Ozone is produced when hydrocarbon emissions react with nitrogen oxides in the presence of sunlight. Ground-level ozone is injurious to human health and vegetation. (Ground-level ozone is unrelated to upper-atmospheric ozone, which is beneficial and being depleted.) 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 nine years.

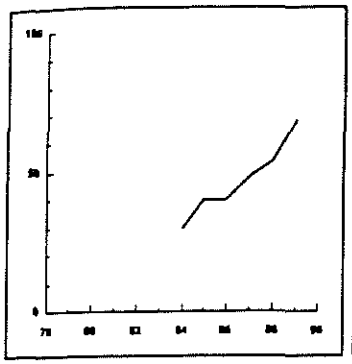
■ Motor vehicle emissions must be substantially reduced if the Northeast is ever to attain the federal health standards for ozone and carbon monoxide, according to the Northeast States for Coordinated Air Use Management (NESCAUM). In 1989, Connecticut, which has the fifth-highest ozone levels in the nation, joined other northeastern states in tightening summer standards for gasoline volatility, and has implemented numerous industrial hydrocarbon-control programs and an automobile emissions inspection program. Gains experienced in controlling air pollution will be eroded, however, unless Connecticut slows the growth in miles travelled annually by automobiles. **The Department of Transportation (DOT) should develop a specific goal and a coordinated program for increasing the availability of public transportation and reducing the projected rise in motor vehicle miles travelled.**

■ Fugitive emissions from vents, rather than emissions from stacks, have been found to be the largest source of toxic air pollutants. According to first-time analysis of comprehensive emission data submitted by industry, non-point source emissions of toxic air pollutants surpass point sources. The General Assembly should provide sufficient funding, perhaps through a fee program, to enable DEP to expand its regulatory attention to this under-managed pollution source. In addition, in order for the DEP to prevent exposure to excessive levels of suspected carcinogens and pollutants that cause fetal deformities, the **General Assembly should remove the exemptions granted to industries that predate the 1986 Air Toxics Control Program.**

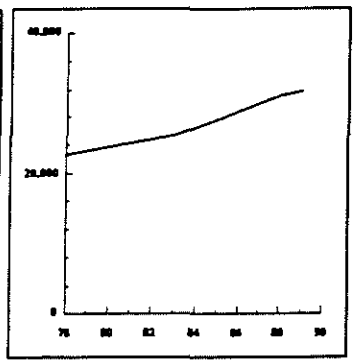
# WILDLIFE

## LONG-TERM TRENDS

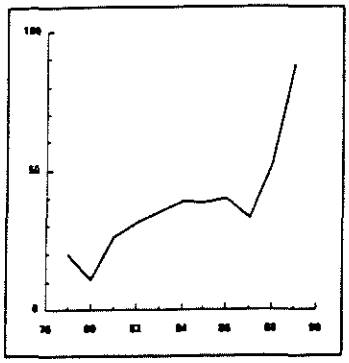
NESTING PIPING PLOVER



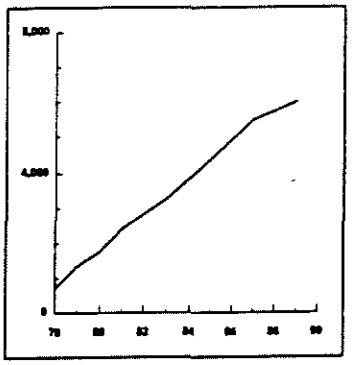
WHITE-TAILED DEER



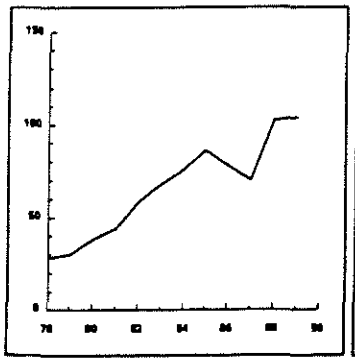
WINTERING BALD EAGLES



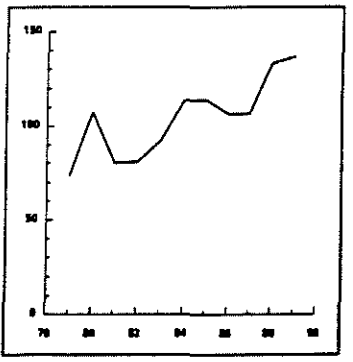
WILD TURKEY



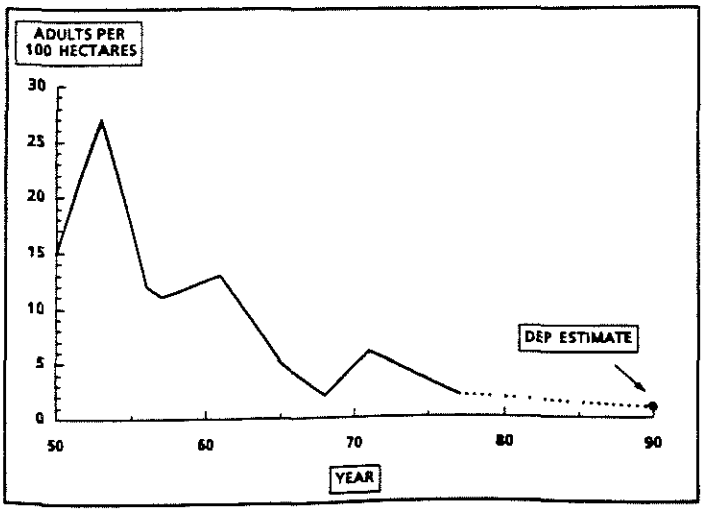
NESTING OSPREY



RIVER OTTER PELTS TAGGED



NESTING BLACK DUCKS




## KEY ISSUES

■ Education and coordination of private landowners is essential to wildlife's future in Connecticut. Data necessary to assess trends and manage habitat is not available for most of Connecticut's wildlife, but population trends that are available suggest that intensively managed game and non-harvested species are benefiting from state and private efforts. The primary concern among surveyed wildlife experts is that the long-term stability of many wildlife populations will be hampered by continued, incremental habitat loss on private lands. As the fate of many species will be determined by actions of private landowners, **the DEP needs to expand its role in conservation education.**

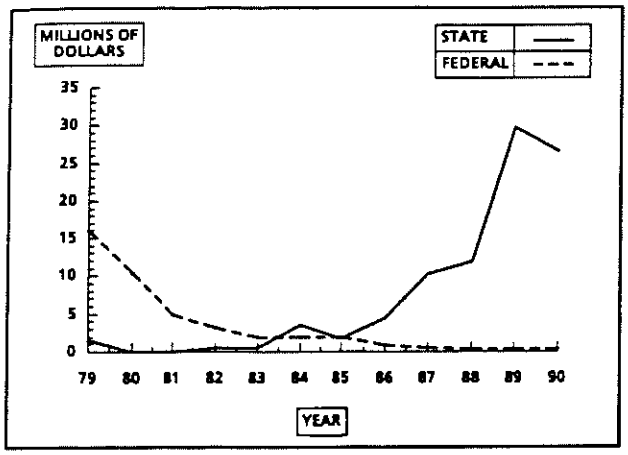
■ Requirements for open space set-asides in subdivisions often result in fragmented woodland parcels which are less valuable to wildlife than large tracts of undeveloped land. Many species of woodland wildlife cannot survive in parcels smaller than several hundred acres. The President's Council on Environmental Quality suggested in 1988 that conservationists pool their efforts to try to preserve some large tracts while opportunities still exist. In Connecticut, one means to accomplish this is to **enable those municipalities which require open space dedications in subdivisions to require instead equivalent payments to local land acquisition funds.**

■ The steady decline in Connecticut's breeding black duck population is indicative of wetlands habitat loss. Many factors, including winter habitat loss, hybridization, acid rain impacts on the aquatic food chain, and high harvesting rates of immature birds have played a role in the decline of black ducks, but development in or near wetlands is perhaps the greatest factor. As one of the few species for which population data are available, black ducks are representative of many species which are less tolerant to human disturbance. The DEP hopes to stabilize black duck populations by preserving and restoring tidal wetlands habitats, but development pressure will likely preclude a recovery to their past population levels.

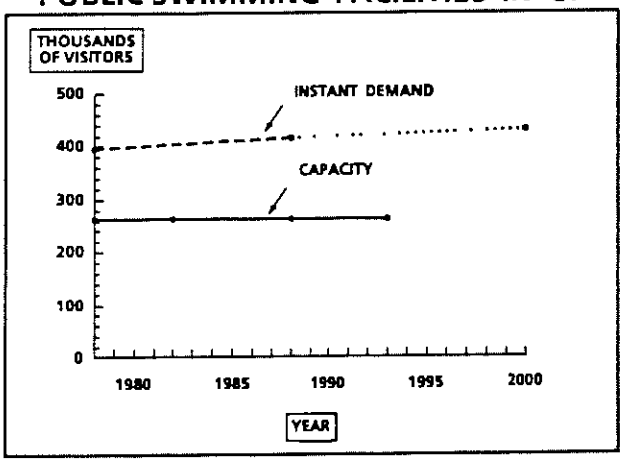
# WOODLANDS, WETLANDS and WILDLANDS

## LONG-TERM TRENDS

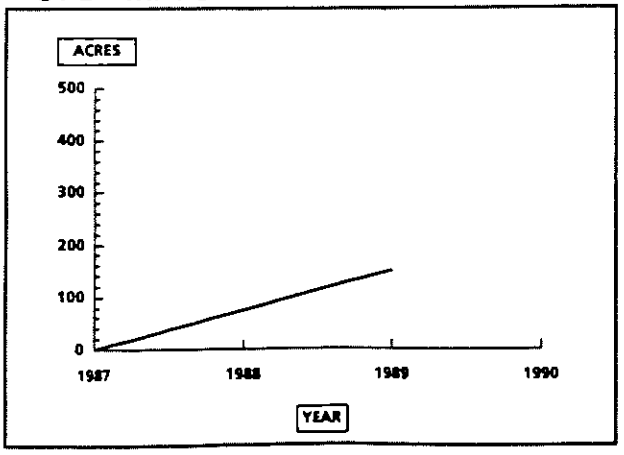
### ALLOCATIONS FOR OPEN SPACE ACQUISITION IN REAL (1989) DOLLARS




### SUPPLY AND DEMAND FOR NATURAL, PUBLIC SWIMMING FACILITIES IN CT




### ACRES OF TIDAL WETLANDS RESTORED BY OPEN MARSH WATER MANAGEMENT




## KEY ISSUES

- Despite its high population density, Connecticut is last among northeastern states in the percentage of land preserved as open space. Through the Recreation and Natural Heritage Trust Fund, proposed by Governor William A. O'Neill and adopted in 1986, Connecticut has been compensating for the virtual elimination of federal allocations for open space acquisition and park development. Continued state funding is necessary if the state is to meet its established goals. In addition, municipalities should be encouraged to implement P.A. 89-370, which enables towns to raise property taxes by up to two mills in order to establish non-lapsing land acquisition funds for open space, recreation or housing.

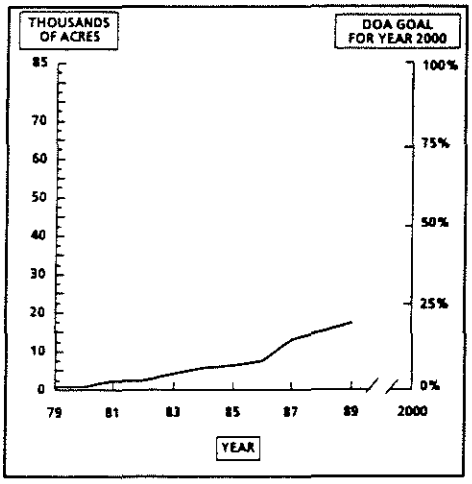
- Demand for natural, public inland and salt water swimming facilities continues to exceed supply. Instant swimming demand, defined as 12.5 percent of the state's population, will continue to rise while the state acquisition of natural swimming facilities has stalled. The recent purchase of Red Cedar Lake will raise the available acreage of state swimming facilities back to 1980 levels, once it is developed in the mid-1990s. Meanwhile, 50 percent of the state's existing natural inland swimming facilities are rated less than satisfactory by a composite evaluation system developed for state outdoor recreation planners. **Existing facilities cannot be maintained without restoring park staffing to prior levels.**

- New mosquito management practices benefit wildlife and coastal communities. Two-thirds 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.

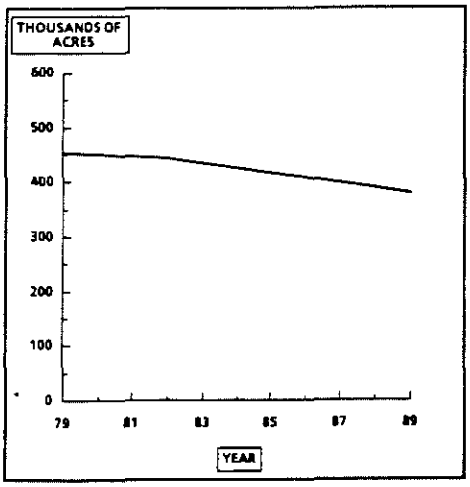
# AGRICULTURE

## LONG-TERM TRENDS

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




### FARMLAND ACREAGE IN CT



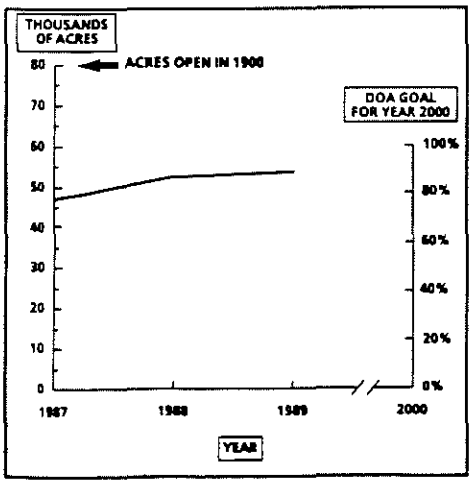

## KEY ISSUES

■ Acceleration of joint municipal and state farmland development rights acquisition programs is necessary if Connecticut is to achieve its year 2000 goal of preserving 85,000 acres of prime and important farmland, according to the Department of Agriculture. Despite continued progress in acquiring farmland development rights, declines in total farmland acreage far exceed acquisition. As the pace of the state's own preservation effort approaches its maximum, **more municipalities will need to establish local funds in order to preserve the availability of locally-grown food and the quality of their open space.**

■ Integrated Pest Management practices must be made available for all major agricultural businesses and pesticide applicators if aquifer protection efforts are to succeed. The General Assembly resolved a long-standing dispute in 1988 by enabling farmers to reduce their future liability for ground water pollution if they employ Integrated Pest Management (IPM) practices. In 1989, 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. **Increased state funding for IPM is necessary to provide opportunities for all agricultural operations to minimize the adverse impacts of pesticide application.**

# 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 revitalization of the shellfish industry, rising from 30,000 bushels in the early 1970's to current annual harvests approaching 240,000 bushels, could not have occurred without sustained state and municipal clean water funds. The DEP hopes to control chronic raw sewage problems by separating combined storm and sanitary sewers; one separation was completed in 1989, in Jewett City. The state's five highest-volume combined sewer systems will not be separated for five to twenty years at current funding levels. **Shellfish bed expansion will depend on continued pollution control and estuary restoration investments.**

# PART III

# TIDAL WATERS 1990

## TIDAL WATERS 1990

The Council on Environmental Quality issued 22 recommendations for improving coastal regulatory programs in its 1988 Annual Report. One of those recommendations was to initiate a program for charging rent to the owners of docks, marinas and other structures occupying state-owned, public trust lands (i.e., all lands lying below the mean high tide line). The ensuing controversy obscured the other 21 recommendations, 16 of which still require legislative or administrative attention, as listed below. Those requiring legislative action are marked with an asterisk(*).

### Tidal Wetlands

*1. Tidal wetlands maps should be completed and revised regularly, though not necessarily biennially as current law specifies. The DEP's basic annual budget should be increased to reflect the average annual cost of revising and adopting the maps. (Mapping was never completed and existing maps have not been revised in 15 years.)

2. The DEP should exploit every opportunity to restore degraded tidal wetlands. Violators should be required to restore off-site wetlands if, for some reason, the areas of the violations cannot be restored.

*3. The General Assembly should amend the tidal wetlands statutes to enable the DEP to protect, through permit conditions, low-lying areas adjacent to tidal wetlands to allow for landward migration of wetlands as sea level rises, where feasible.

### Tidal Waters

4. The DEP should develop and implement a method for monitoring and evaluating the cumulative environmental impact of structures and dredging activities.

*5. The General Assembly should continue to fund the Coves and Embayments program, which has the potential to restore many degraded coves to their former productivity. Since many of the historic impacts to coastal estuaries were caused by transportation projects that restricted tidal flow, the Department of Transportation should be urged to restore flow to coves when regulatory agencies require compensation for unavoidable impacts caused by proposed projects nearby.

6. The DEP should continue its effort to promulgate regulations pursuant to the structures and dredging statutes, and should articulate the goals of the program relative to cumulative impacts and the ultimate density of in-water structures that will be permitted along Connecticut's coastline. The regulations should clarify the criteria by which individual permit applications will be evaluated in relation to the state's overall goals and policies.

Administration: Permitting and Enforcement

*7. The DEP should establish two types of permit fees: A) an application fee, proportional to the size of the project, and B) an inspection fee, to be paid upon granting of the permit, which would cover the cost of inspecting the project for compliance with permit conditions. Revenue should be dedicated to the program.

8. The DEP should amend its procedures to require "Certificates of Compliance" for completed projects, analogous to the certificates of occupancy builders must obtain from municipal governments for upland structures.

9. The DEP should improve coordination with municipal agencies which independently regulate the upland portion of projects, and should upgrade the information distributed to potential applicants to include substantial, easy-to-understand guidance.

10. The DEP should delegate inspection authority to those towns which desire it.

11. The DEP should never give a violator the option of applying to retain and legitimize a structure or fill placed illegally. Upon discovery of a violation, the DEP should push immediately and aggressively for removal, remediation, and civil penalties. After a few successful cases, the Council predicts a sudden decrease in the number of violations.

12. The DEP should develop regulations for assessing administrative civil penalties for tidal wetlands and structures and dredging violations, to help speed enforcement. At present, penalties require judicial action. (In 1988, 48% of municipal officials in coastal towns rated the timeliness of DEP enforcement as fair (9%) or poor (39%).)

*13. The General Assembly should amend the tidal wetlands and structures and dredging statutes to enable citizens and municipalities to take violators to court.

Related Issues

14. The DEP should develop a formal mitigation policy for coastal permits that involve unavoidable destruction or degradation of a resource.

15. The DEP should acquire important coastal ecosystems and public boating-access points, and explore the potential for creating public marinas.

*16. The DEP or the General Assembly should raise significantly the fees it collects from underwater sand and gravel mining operations. Revenue should be dedicated to restoration of tidal wetlands and estuaries. Mining operations which degrade water quality should not be permitted.

## The Public Trust

Last year, the Council made the following recommendation:

> "The General Assembly should authorize the DEP to initiate a public trust land leasing program. Revenue from the lease program should be dedicated to the coastal protection and restoration needs [expressed in the other recommendations]."

During 1989, Council staff analyzed all of the written comments and oral testimony presented at the Environment Committee's three public hearings. After reviewing the opponents' statements, the Council stands squarely behind its recommendation, but with certain revisions and clarifications that would address the most common reasons for opposition:

1. Eliminate the term "lease". The term "lease" raised two undesirable, widespread misconceptions: a) Parties who own docks, beaches, or shorefront property could have their leases terminated, and someone else could acquire the lease, and b) Wealthy investors could buy up leases to an entire harbor or area on a speculative basis. In fact, neither outcome would be possible, since the leasing program would not alter the basic framework of riparian or littoral rights. If one owns the access to the shorefront and thereby has the common law riparian right to place a dock or other improvement in the water (subject to existing environmental regulations), one possesses that exclusive right regardless of whether or not the state charges rent. Leases would not go to bidders; rather, the lease is merely a mechanism for establishing and collecting the rent owed the state for placing the structure or improvement in question in public trust lands. No party could obtain a lease for the opportunities it might afford in the future; leases could be issued only when a riparian landowner obtains permits to construct a specific structure and actually does so.

Prior to the 1989 legislative session, the Council was advised by the Connecticut Coastal Fishermens' Association to avoid the term "lease," because of the confusion it would cause in areas of shellfish beds. The Council failed to heed the advice, concluding that the term "lease" had served adequately in nearby states. In hindsight, the term caused other types of confusion, all understandable. For that reason, the Council recommends abandoning the term "lease" in favor of one more apt: a structures fee.

The term "structures fee" would help to explain the program's true intent. Many boaters complained that the lease was another tax on boaters, who already pay significant taxes and that, furthermore, it taxed only the boaters who used marinas. It was not intended to be a tax on boaters, only on structures placed in public-trust waters for exclusive private purposes. Certainly, marina owners would pass the expense on to boat owners, but boat owners who trailer their boats would escape the fee because they would not be occupying public trust lands. The fee would be collected to compensate for the use of, and environmental impact caused to, tidal waters by structures, not the environmental impacts caused by boats. Thus, the term "structures fee" would be self-explanatory.

2. Declare legally reclaimed land to be permanently exempt from structures fees. The legislation proposed by the DEP in 1989 defined public trust lands as "any land now or formerly subject to the ebb and flow of the tide." The intent was to make the definition consistent with certain common law definitions, but many citizens concluded, understandably, that the state would or might start charging rent for their homes, yards, factories, and other improvements built on filled or reclaimed land, just because the tide once flowed there.

The Council recommends that the General Assembly declare, in statute, that owners of previously reclaimed (i.e. filled) land will not be subject to any fees imposed by the state for use of public trust lands. (Land filled illegally should not gain such exemption.) Any fee program should apply to new or existing structures or new fill placed in lands that were subject to the ebb and flow of the tide on the date of passage of the bill.

Many specific legal arguments presented in opposition to the bill during 1989 hearings were found by Council staff to be invalid. Independently, the Office of Legislative Research arrived at many of the same conclusions. Some of the arguments found to be invalid are:

-- Under the proposed legislation, lands covered only by storm tides would be subject to leasing.
-- Towns were granted ownership of tidal lands by the Colony or State of Connecticut; therefore the state does not own them.
-- A public trust leasing program is a violation of private property rights.

For critiques of these and other legal arguments, readers are referred to the Office of Legislative Research's October, 1988 memo entitled "Leasing of Public Trust Lands."

Three other concerns deserve careful attention. Fishermen expressed concern about possible effects of a leasing program on shellfish beds. The Council shares those concerns, but believes that proper administration and enforcement of the structures and dredging statutes should prohibit any development in shellfish beds, making moot any question of a lease or structures fee. The Council would support clarifying language to preclude any possible changes to the way public shellfish beds are administered.

A second issue requiring clarification is the ownership of tidal basins dug out of uplands. They cannot be both state-owned (subject to state structures fees) and privately-owned (subject to local property taxes). The General Assembly should decide who owns these dug-back lands.

Finally, many potential payers of rent to the state objected strongly to the payment of any fee that was not dedicated to coastal protection and improvements. The Council concurs, and strongly recommends a dedicated fund.

Improvements During 1989

The Council is pleased to report three important improvements to coastal regulatory programs implemented by the DEP in 1989:

1. Staffing -- The number of staff assigned to the tidal wetlands and structures and dredging regulatory programs has increased from two to six. More importantly, some of their inspection and enforcement responsibilities have been assumed by other coastal program staff. Staff can now review nearly as many applications as are received in a year, though a serious backlog remains and and applicants still must wait months or years for permits to conduct even the simplest projects.

2. Permit Decisions -- Detailed final decisions of the Commissioner (or her delegates) demonstrate a new clarity of policy, intended to guide staff in reviewing future applications. (For more information on the emphasis on policy articulation and consistency, see the CEQ's April, 1989 Special Report, "Recent Trends in DEP Decision-making".)

In some contested cases, the Council noted a more aggressive effort by DEP staff to defend state environmental policies. Through cross-examination of applicants' hired witnesses and presentation of its own expert testimony, the DEP staff provided the hearing officers with complete hearing records that were at least as favorable to the public's interest as they were to the applicants'.

3. Enforcement -- In 1988, the Council concluded that a lack of meaningful penalties was one of the two major factors contributing to the frequent violation of structures and dredging statutes (the other being the length of time required to obtain a permit). Usually the worst penalty a violator had to fear, if caught, was applying for a permit to validate the illegal structure. In last year's report, the Council highlighted cases in which commercial enterprises enjoyed free, economic use of structures and fill on public land for years without benefit of permits.

Through enforcement decisions of the Commissioner, the DEP took decisive steps in 1989 to disabuse potential scofflaws of the belief that violations have no serious consequences. In one case, a permittee who built his dock larger than his permit allowed was ordered to remove it and restore the area. In another, a marina owner was denied permission to maintain non-permitted docks, and ordered to remove them. In yet another, a violator was permitted to retain some illegal fill and structures on the condition that the property be available to any member of the public, and posted to advise residents of their access rights.

The Council applauds these decisions, and advocates imposition of civil penalties in addition to restoration requirements.

In addition to the improvements implemented by the DEP, private conservation groups have focused on certain aspects of coastal regulation. At public hearings, watershed organizations and the Connecticut Clean Water Coalition have advocated a stronger assertion of the state's authority to say "no," where appropriate, to someone who wishes to use its property for private, commercial purposes. The Connecticut Fund for the Environment is pursuing a related issue in the Superior Court (see "Emerging Issues", p. 1 ).

The problems of rising sea level, mentioned briefly in last year's CEQ report, received detailed attention in a Special Report of The Sounds Conservancy. The four-state coastal conservation organization points out that we may have virtually no tidal wetlands remaining in a few decades. Efforts to protect upland areas from rising tides -- e.g., construction of bulkheads and seawalls -- will ensure the flooding and eventual demise of tidal wetlands. Low-lying areas, to which wetlands can migrate as sea levels rise, need to be protected. No policies address this issue, despite the fact that officials in half of Connecticut's coastal communities are concerned about the problem (Source, 1988 CEQ survey). See recommendation #3, page 12.

# PART IV

# MEETING THE MANDATE: RECOMMENDATIONS FOR FUNDING ENVIRONMENTAL PROTECTION IN A TIME OF FISCAL CONSTRAINT

# MEETING THE MANDATE:
# RECOMMENDATIONS FOR FUNDING ENVIRONMENTAL PROTECTION
# IN A TIME OF FISCAL CONSTRAINT

## PREFACE

In this report, the Council documents a serious problem: the inadequacy of financial resources available to the Department of Environmental Protection (DEP) in relation to its responsibilities. The problem developed over two decades, starting with the birth of the DEP in 1971. It developed because everyone involved -- administrators, legislators, environmental organizations, municipalities, the DEP itself, and the general public -- was eager to address the whole range of environmental problems facing Connecticut, but not enough money was made available to do the job. The state suffered a collective naiveté regarding the actual cost of operating a fully-functioning Department of Environmental Protection. The Council on Environmental Quality (which itself recommended additional responsibilities for the DEP) offers this report in the spirit of identifying a serious problem that concerns everyone, and offering recommendations for solving that problem.

The Council offers its recommendations with full recognition of present fiscal constraints and of many citizens' desires to "reduce state spending." Many of the Council's recommendations would not increase the burden on the general fund significantly, as dedicated fees are the preferred alternative for funding many environmental programs. More importantly, the Council sees a public mandate to boost environmental spending. One illustration of that mandate is a February, 1989 poll conducted by the University of Connecticut's Institute for Social Inquiry, which found that 64 percent of state residents think the state spends too little on protecting the environment. (Only one state program, "reducing the use of drugs," elicited greater (68 percent) expression of desire to spend more state money.) The percentage favoring higher environmental spending increased greatly from 46 percent in 1985. Because the public has always supported strong environmental protection measures in this state, and because solutions to environmental problems require money, the Council looked for a way to match the will with the means.

SUMMARY OF FINDINGS

1. Responsibilities vs. resources: Since the DEP's creation in 1971, the General Assembly has legislated more than 200 new environmental programs, duties, and enforcement responsibilities; state appropriations to the DEP have not kept pace with the growth in responsibilities (p. 26).

2. Small percent of state budget: The DEP's appropriated (i.e., non-capital) budget is 0.79 percent of the overall state appropriations. This percentage has been on a gradual upward trend for five years (p. 29).

3. Current Needs: To carry out all required programs, including those adopted in the 1970s and 1980s, the DEP is currently short some 300 program staff positions. Funding these positions, essential support staff, and other expenses will require an increase of approximately 15 to 20 million dollars in state appropriations to the DEP, an increase of approximately 30 to 40 percent (p. 26).

4. Modest per-capita spending: A $20 million increase in the DEP's budget would raise Connecticut residents' per-capita expenditures for environmental protection (capital projects excluded) to $21.36, from its current level of $15.18. Even this increase would keep Connecticut's per-capita expenditure below that of most other states (p. 33).

5. Comparisons with other states show Connecticut to be below the national median -- and well below the leading northeastern states -- in per-capita spending for environmental protection, environmental spending in relation to personal income, and funding of environmental protection as a portion of overall state spending (p. 33).

6. Federal funds decreasing: Federal funding of most environmental programs has decreased, and all predictions are for further declines despite additional federal mandates (p. 31).

7. Fees not collected: Millions of dollars of potential revenue -- primarily fees from regulated industries -- go uncollected in Connecticut each year (p. 40). A major reason is the fact that most fees collected by the DEP are returned to the General Fund, rather than dedicated to the programs for which they are collected. A dedicated fee is ideally suited to environmental regulation programs: the fee can be set to match the cost of reviewing and acting on an application. Many models exist which illustrate the potential self-sufficiency of regulatory programs (pp. 38-40).

8. Decline of Parks and Forests: The DEP's Branch of Environmental Conservation (formerly the Division of Conservation & Preservation), which manages parks, forests, wildlife, and fisheries, has lost considerable staff since the DEP's creation in 1971. Park conditions are declining. A major reason for this decline has been a constantly-increasing public demand for expanded regulatory programs in the DEP's other major branch, the Branch of Environmental Quality. In most years, the Department and the General Assembly had to choose Environmental Quality programs to receive

the limited increases in staff available to the DEP. Many of the Environmental Quality regulatory programs could, however, be funded with fee revenue, which would help to make general fund appropriations available for park and forest management in the Branch of Environmental Conservation. Several industries have expressed support for new and higher fees (p. 27).

9. Other state's solutions: Maine, Vermont, and New Jersey are three states that recently faced the same deficiencies in spending for environmental protection that Connecticut faces now. Since 1986, all three states have used a combination of fees and general fund increases to substantially increase funding for environmental protection (p. 38).

## SUMMARY OF RECOMMENDATIONS

The State of Connecticut should adopt a comprehensive plan for funding its environmental protection efforts, to be implemented over the next three years. The plan should include:

1. A Goal. The Administration and the General Assembly should adopt a goal for state environmental spending. The Council estimates that a DEP operating budget (non-federal) of 70 to 75 million dollars -- an amount equal to approximately one percent of the total state budget -- would be adequate to meet current responsibilities. Following the lead of other states, the initial emphasis should be on stepped-up collection and dedication of fees, with the balance to be made up from the general fund.

Within the Branch of Environmental Quality:

2. A dedicated fund for regulatory programs. The General Assembly should establish one or more dedicated, fee-supported funds for regulatory programs in the DEP's Branch of Environmental Quality. Fees should support one hundred percent of the costs of processing and evaluating applications and monitoring permittees for compliance. (See number 8, below, for costs that should not be supported one hundred percent by fees.) The dedicated fund need not be separate from the General Fund; standard "earmarking" language and separate accounting of the fees would be sufficient.

3. Collection of all fees owed. The DEP should establish an effective mechanism for collecting all annual permit fees owed to it.

4. Higher or new fees, where currently authorized. The DEP should establish fees for all regulatory programs for which such fees are statutorily authorized at present. Application fees should be sufficient to support application processing, review by engineers and analysts, publishing of public notice, and inspection for compliance. Staff work associated with enforcement orders should also be fee-supported, with separate fees paid by violators.

5. New fees authorization. The General Assembly should authorize the collection of fees for all regulatory programs that do not have such authorization at present. Such fees should be deposited in the dedicated fund(s).

The General Assembly should simultaneously authorize enough general fund staff positions so that regulations can be written, fee schedules calculated, and a collection mechanism implemented. As these tasks are completed, and as fee revenue is returned to the DEP, start-up staff can be re-assigned to other general fund duties.

6. Effluent charges for toxic emissions. The General Assembly should establish effluent charges (i.e., on a per-pound basis) for emissions of toxic or hazardous substances into the air. Revenue should be dedicated to two DEP programs which now have no or little funding: regulation of hazardous air pollutants and regulation of "fugitive" toxic air emissions.

7. Application fees for state agencies. The General Assembly should adopt the Connecticut Siting Council model, and ensure that DEP regulatory programs are 100 percent fee-supported by requiring state agencies, like industries, to pay application fees.

8. Increased General Fund appropriations. General fund money will be needed to support the following Branch of Environmental Quality functions which should not be funded entirely from dedicated fees: long-range planning and development of standards; monitoring of air, streams, lakes, etc.; basic data collection; support staff, DEP Central Office, public education programs; technical assistance; pollution reduction programs; and investigation of "outlaw" (non-permitted) companies.

Within the Branch of Environmental Conservation:

9. General fund support for the DEP Branch of Environmental Conservation. Park and sportsmen's fees do not cover the full costs of parks, forestry, wildlife and fisheries programs in the Branch of Environmental Conservation, nor should they. Park and sportsmen's fees would always need to be supplemented by General Fund appropriations. Those programs would not be good candidates for dedicated funding. The General Assembly should appropriate enough money to ensure that all citizens can derive the benefits of Environmental Conservation programs, recognizing that much of that money will be returned by park fees, sportsmen's fees as well as payments from the sale of timber in state forests.

10. Restoration of park and forest staff to 1974 levels. The General Assembly should increase general fund support for parks and forests to restore maintenance and management staff to, at the least, 1974 levels. As a start, enough funds to regain 1987 staff levels (still 61 positions short of 1974 levels) could be obtained by raising parking fees and park admission fees by 100 percent (an increase of fifty cents to two dollars, depending on the park).

11. Consideration of a salt water angling license. The General Assembly should consider requiring a special, inexpensive fishing license for saltwater fishing, but only if the revenue is dedicated to coastal fishery habitat restoration and improvement.

## Related Issues

12. Higher subaqueous mining fees. The DEP or the General Assembly should raise substantially the fees collected from the mining of sand and gravel in state waters to better reflect the worth of the materials to mining companies (which in turn sell the materials at the market rate). Mining fee revenue should be dedicated to environmental restoration projects (i.e., tidal wetlands restoration, coastal embayment restoration, etc.).

13. Penalties. Civil and criminal penalties collected from violators of environmental laws should, by statute, be dedicated to environmental restoration projects.

14. DOT Cooperation. The DEP should continue to work with the DOT in determining the highest priorities for using DOT funds to mitigate unavoidable environmental impacts of transportation projects.

15. Voluntary Contributions. The DEP should investigate private-sector park "adoptions" and other programs that have proved successful in stretching public dollars in other states. The General Assembly should ensure that the DEP is provided with staff to initiate and coordinate such contributions.

## The Future

16. No more responsibilities without resources. From 1990 forward, the General Assembly should not add additional responsibilities to the DEP without providing sufficient resources.

## INTRODUCTION

According to the Council's Environmental Quality Index (Part II of this annual report) most available data suggest that the quality of Connecticut's environment has been improving gradually but slowly. Reasons for these favorable trends are many, but four stand out as particularly important:

1. Substantial Capital Investments. Through the state Clean Water Fund and its federal ancestors, Connecticut and its municipalities have spent several hundred million dollars to build sewage treatment plants, and to separate sanitary from storm sewers. The result has been a doubling of the stream miles that meet water quality goals. As another example of capital investment, the state is three years into a $100 million, five-year open space acquisition program, including $75 million for the Recreation and Natural Heritage Trust Fund that also harnesses private and municipal funds for state land protection.

2. Strong Regulations. Connecticut has demonstrated a willingness to adopt stringent environmental standards and regulations, many of which require investments by industry that exceed those in other states. Connecticut is known as a leader for its regulation of water and toxic air discharges, wetlands encroachment, solid waste disposal and recycling, as well as other activities.

3. Innovation. Connecticut benefits from creative and innovative officials and public servants. A number of environmental programs were born in Connecticut, and have served as models for the rest of the nation. The statewide system of ground water classification and planning is but one example.

4. Active Citizens. Private land conservation groups are more numerous here than elsewhere. Many statewide and local environmental groups, through research, education, activism, and legal action have helped to push Connecticut to the fore; as one example, it was the participation of a health and an environmental group that convinced state government to adopt a policy of requiring the most advanced air pollution control technology on all trash-to-energy plants.

Despite Connecticut's success stories, severe problems remain, and projections are not favorable. Close analysis of environmental quality trends reveals that progress has leveled off in many key areas. Plateaus have been reached. A new phase of action will be required for progress to resume, and might be necessary just to maintain current conditions.

Connecticut's population continues to grow, but population growth is a minor problem in itself. More important factors are economic and social. Increasing affluence has led to greater per-capita energy use and waste generation. Automobile use has increased at rates far beyond population growth, the result of new work patterns and leisure activities. Average household size has been decreasing, causing demand for new housing units to far outpace growth in actual population levels. In short, each of us

places a greater burden on the environment in 1990 than we did in 1980 or 1970, and the need to regulate those impacts has grown, and will grow, concurrently.

The improvement in many environmental quality indicators, however, represents only a partial picture of trends in Connecticut's environment. Solid data is sparse, and is collected only in support of programs on which the state is focusing its efforts and expenditures. One would expect to see improvements as a result of those efforts. The fact that little or no data exist for other environmental trends is itself a symptom of not having devoted enough financial resources to the problem.

The Council's research indicates that the DEP is not equipped to handle the job it has been asked to do. The consequences are that the environment is not improving at the rate that the General Assembly anticipated it would, citizens must often wait long periods of time to obtain relief from localized environmental problems, and regulated businesses suffer economic losses as they wait months or years for their permits. Some DEP regulatory programs are best known for their chronic backlogs and permit-processing delays. Complaints from park users are on the increase. Even when the DEP does satisfy the concerned citizenry, its inner workings remain a mystery to the public, as not enough time can be devoted to explaining them. All of these problems are discussed in sections that follow.

If there is interest in rectifying the discrepancy between the DEP's responsibilities and its resources, the choice is clear: set the state's environmental goals significantly lower, or seek equitable ways to raise the resources necessary to meet the goals. The Council views the latter choice as the only one acceptable to most citizens, given their oft-reiterated support for environmental improvements.

## DEP RESPONSIBILITIES AND RESOURCES

Since its creation in 1971, the DEP has been responsible for administering all laws pertaining to air, water, waste, radiation, noise, and pesticides, in addition to traditional duties of managing parks, forests, wildlife, and recreation, including boating. The following sample of DEP's duties from a single year (1989) illustrate their diversity:

| | | |
|---|---|---|
| Regulation of: | 313,671 | fish and wildlife license-holders |
| | 162,148 | hazardous waste tracking documents |
| | 5,000 | industrial sources of air pollution |
| | 4,546 | hazardous waste handling facilities |
| | 3,400 | pieces of x-ray equipment |
| | 2,761 | registered dams |
| | 2,000 | water pollution sources |
| | 200 | sewage treatment plants |
| Management of: | 190,000 | acres in 113 state forests and parks |
| | 1,000 | miles of park and forest roads |
| | 270 | miles of major flood-prone rivers |

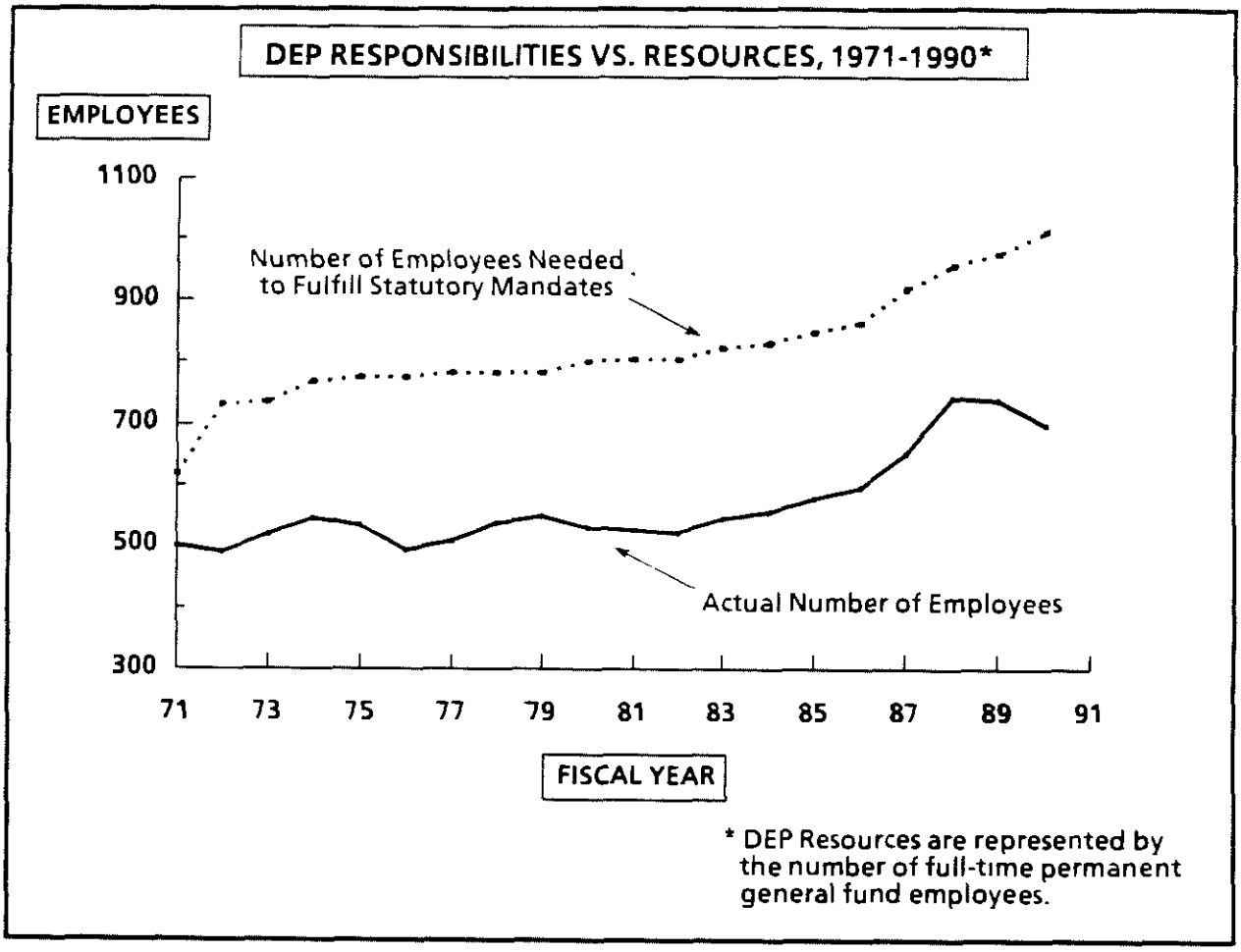
| | | |
|---|---|---|
| Responsibility for: | 384,000 | acres of estuaries |
| | 83,000 | acres of lakes and ponds |
| | 8,400 | miles of rivers and streams |
| Technical Assistance in: | 1,023 | municipal coastal management decisions |
| | 99 | municipal inland wetlands decisions |
| Certification of: | 5,160 | firearms, hunting and trapping students |
| | 1,558 | pesticide applicators |

The above numbers illustrate the Department's diversity, but they do not reflect the entire scope of DEP responsibilities, let alone the magnitude. (For a more complete listing of DEP activities, readers are referred to the "Digest of Administrative Reports" and the current state budget document.) Numbers alone cannot provide complete information. For example, 260 hazardous waste and 862 water resource (including wetlands, diversions, and structures and dredging) permits were issued in fiscal year (FY) 1989; a single permit might consume anywhere from one person-day to more than a person-year of staff time.

To execute its duties, the Department of Environmental Protection receives less than one percent of total state appropriations: 0.79 percent in FY89.

Chronic permit backlogs, increasing numbers of complaints, and other indicators of possible understaffing led the Council to examine the relationship of DEP responsibilities to resources. It is apparent that the DEP has been given many duties over the years without commensurate funds. Since the DEP's creation in 1971, more than 200 statutory mandates, duties and enforcement responsibilities have been added. Fulfillment of those mandates would have required an increase in DEP program staff (excluding clerical and support staff) of nearly 100 percent since 1973; total DEP staff positions (including clerical and support) increased by only 35 percent over the same period. The Council did not count the many statutory authorizations for new programs or duties which were not explicitly mandated. As the graph on the next page indicates, the result is a funding gap.

To assess actual needs, the Council compiled a year-by-year listing of added DEP responsibilities. Council staff determined which duties were being fulfilled, and which were not. Using historical staffing levels, the Council determined (with the assistance of DEP managerial staff) how many staff positions were assigned to each responsibility, and how many would be needed to fulfill those duties that were being addressed incompletely or not at all. The total number of staff needed to conduct each task was




aggregated and entered on the graph above for the years following the legislative instruction to conduct the task.[1] The method yielded imperfect but very conservative results; the following notes explain the process and the results more clearly:

-- As stated above, legislatively authorized programs to be implemented at the Commissioner's discretion were not included.

-- Administrative staff, geologists, biologists, computer programmers, and other support staff who collect and process data essential to many mandated programs, were not included.

-- Adjustments were made for public acts which reduced the DEP's workload, though these are few in number. One example is the 1987 amendment to the Inland Wetlands and Watercourses Act which required all municipalities to establish wetlands commissions and

[1] Many programs that existed prior to the DEP's creation in 1971 (i.e., state Clean Water Act, Tidal Wetlands Act, basic park, forest and wildlife responsibilities, others) grew in scope and magnitude during the 1970s and 1980s. It was impossible for the Council to apportion incremental growth in responsibilities among the years, so current staffing requirements of those pre-1971 programs were entered onto the graph for the year 1971. Consequently, the initial gap of 119 positions in 1971 is almost certainly overstated, but this distortion does not affect the 1990 gap of 311 positions.

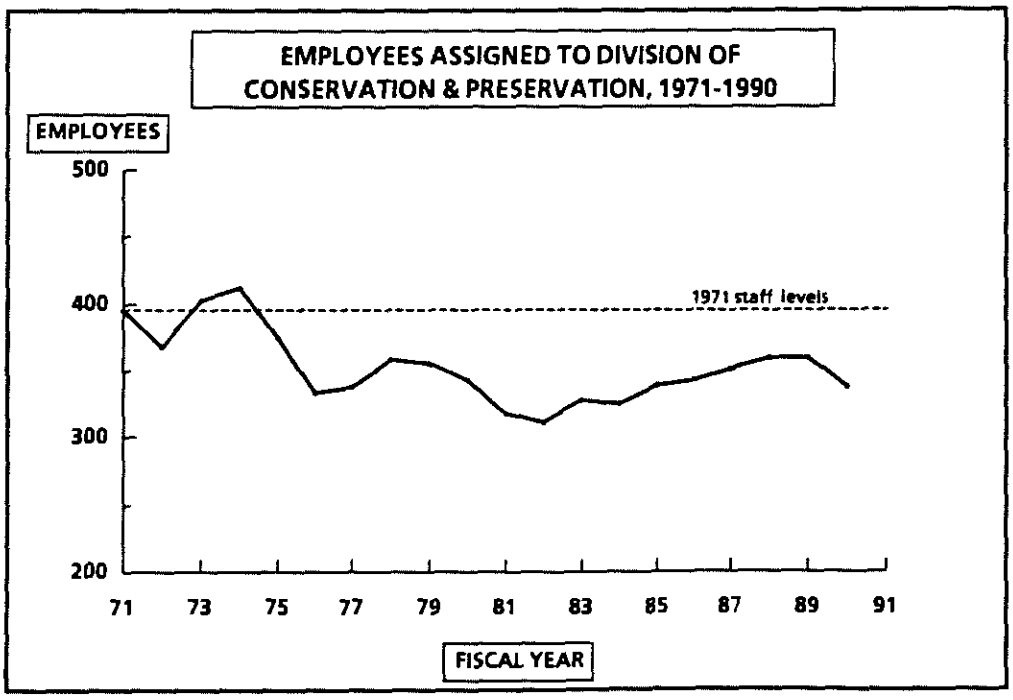
thereby rescue the DEP from the deluge of applications from the 14 cities and towns that previously did not have their own commissions. In another year, the DEP will have reduced its backlog of inland wetlands applications to near zero, and the staff will be able to address other requirements of the act.

From its comparison of the DEP's responsibilities to its resources, the Council concludes that the Department is more than 300 professional staff positions short. Based on the current ratio of DEP staff to appropriated dollars -- a ratio which would take into account the need for supplies and other expenses -- an increase of 300 staff positions would require an increase in the DEP's appropriated budget of approximately 15 million dollars annually. (Because many DEP units actually have insufficient supplies and operating budgets, this simple formula yields an estimate that is very conservative and probably too low.) Adding 300 program staff would require additional clerical, administrative and support staff, and bring the total required budgetary increase to between 15 million and 20 million dollars.

An increase in the DEP's appropriated budget of $20 million would elevate it to about one percent of the state budget. Even such an increase would still place Connecticut well below other states on both a percent-of-budget basis and a per-capita basis (see p. 33).

**FOCUS: NO MONEY FOR PARKS**

Overall staffing of the DEP has increased since 1971 (see graph, p. 26), masking a serious decline in the Branch of Environmental Conservation (formerly the Division of Conservation and Preservation). The Branch of Environmental Conservation manages state parks, forests, boat launches, wildlife, and fisheries.




continued on next page .....

Prior to the DEP's creation in 1971, park, forest and wildlife management duties were handled by the State Park and Forest Commission and Board of Fisheries and Game. Since 1974, the number of staff available to take care of the state's lands has declined significantly. The latest period of tight budgets has taken staff levels further downward, culminating with the "golden handshake" departure of about 20 staff. Parks have been particularly hard hit by budget cuts. According to the Connecticut Parks and Recreation Supervisors Association, approximately 55% of the field work staff has been lost since the early 1970s. During the same period, park acreage increased, park attendance increased, and year-round recreation has become more common. Resultant problems include improper supervision of seasonal staff, deterioration of park properties, inefficiencies, increases in complaints, and potentially unsafe working conditions caused by one-person crews being assigned to entire parks where several employees formerly worked. In 1989, the public demonstrated its fervent support for keeping the parks open when a partial closing of 12 parks was proposed. Closure was averted when the Governor, in response to citizen complaints, ordered the DEP to find the means to keep the parks open. Keeping them all open permanently will require additional funds.

If the public is desirous of open parks, why have the necessary appropriations not been forthcoming? The most evident reason is that the Branch of Environmental Conservation has lost out continually in the annual competition for state funds, not only to other agencies but to other urgent demands of the DEP. To even be put before the General Assembly, a request for more park staff (or a retention of staff when budgets are being cut) must be given priority status by the DEP Commissioner. How can a Commissioner, except in unusual circumstances, give highest priority to park staff when air, water and waste programs in the Branch of Environmental Quality are backlogged, environmental health is being threatened, federal agencies are threatening to withhold funds if state matching funds are reduced, and citizens and industry are lobbying hard for better levels of service in Environmental Quality programs? In essence, the management of parks, forests, fish, and wildlife was assigned subservient status when those responsibilities were merged with environmental quality regulation in 1971.

It is unlikely that the General Assembly intended for the state's commitment to parks, forests, and wildlife to diminish when it created the DEP. In fact, that diminution was not inevitable. If the environmental quality programs created in the 1970s had been funded by fees collected from regulated industries, there would have been far less need to use general fund appropriations, and such appropriations could have been used for park and forest staff positions. Ironically, many of the regulated industries have expressed support for new or higher fees in return for better service. A reading of the general statutes gives clear indication of the legislature's intent that many environmental quality programs would be funded by fees from industry, but a failure to dedicate those fees doomed their collection (see p. 40 for further discussion). This analysis leads to a surprising conclusion: **failure to collect fees from regulated industries has led indirectly to the decline of Connecticut's parks and forests.**

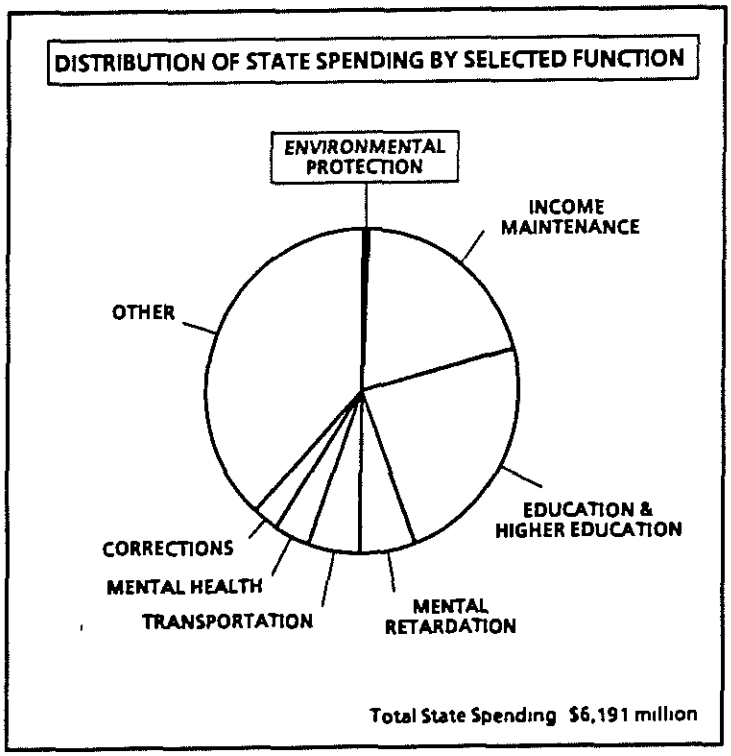
DEP's Place in the State Budget

In fiscal year (FY) 1989 state appropriations totalled $6,191 million. Major expenditures were distributed as shown on the graph on the following page.

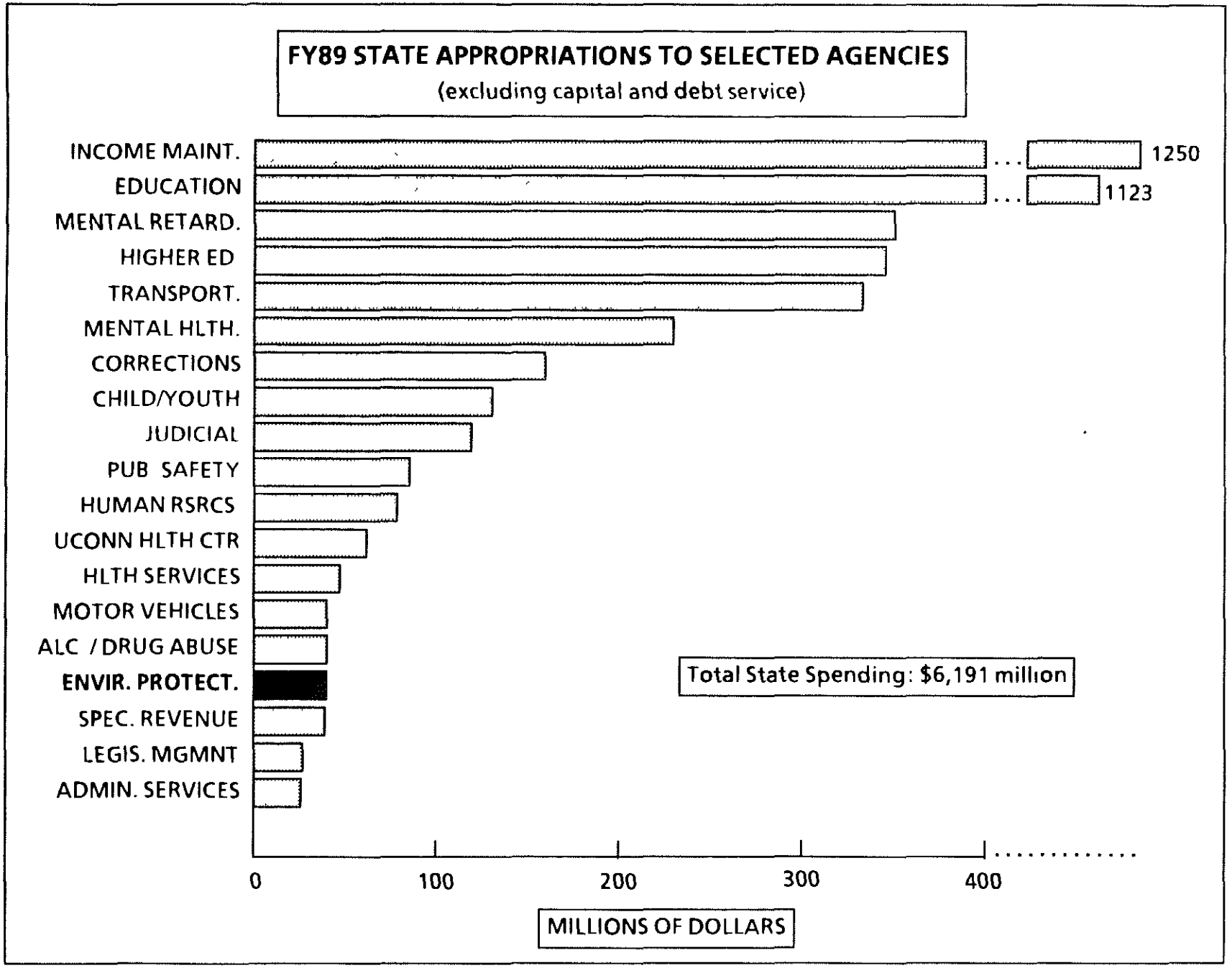
These agency budget figures represent the total amount of state money spent on a given function (excluding debt service and capital costs). This includes grants passed through an agency which further its mission and, in the case of higher education, includes the aggregate budgets of all relevant agencies. These more inclusive figures allow comparison of state spending by function.

As shown in this bar graph, state support for the UConn Health Center and the Department of Motor Vehicles exceeds that for environmental protection. Spending is roughly the same for the conservation and protection of Connecticut's environment as it is for the Department of Special Revenue's management and oversight of gambling operations in the state.

The following graph represents the distribution of state funds by function:




Environmental spending constitutes less than 1/100 of the state budget: for every $100 the state spent in FY89, 79 cents (0.79 percent) went to environmental protection. While this represents an improvement over historical spending (in FY86 the percentage was 0.62, in FY80 it was 0.57) the financial commitment remains low in relation to responsibilities and the environmental spending of other states.


FY89 STATE APPROPRIATIONS TO SELECTED AGENCIES
(excluding capital and debt service)
INCOME MAINT.
EDUCATION
MENTAL RETARD.
HIGHER ED
TRANSPORT.
MENTAL HLTH.
CORRECTIONS
CHILD/YOUTH
JUDICIAL
PUB SAFETY
HUMAN RSRCS
UCONN HLTH CTR
HLTH SERVICES
MOTOR VEHICLES
ALC / DRUG ABUSE
ENVIR. PROTECT.
SPEC. REVENUE
LEGIS. MGMNT
ADMIN. SERVICES
1250
1123
Total State Spending: $6,191 million
0
100
200
300
400
MILLIONS OF DOLLARS

FOCUS: MANY STATUTORY MANDATES ARE NOT FULFILLED

Because of budget constraints, most DEP units cannot do everything required of them by state law. Program managers must select priority tasks. As a result, the following mandates are among the important ones not being fulfilled:

| Statute | Year Passed | Requirement |
|---|---|---|
| 23a-24a | 1974 | DEP shall cause boundary lines of all state parks and forests under DEP's control to be surveyed by 7/1/84. |
| 22a-237 | 1986 | DEP shall be responsible for inspecting all aspects of resource recovery facilities in order to protect public health, including inspecting grounds & solid waste storage area, residues, and content of waste. |
| 22a-240 | 1987 | DEP shall coordinate a program to educate the public on risk assessment and risk management of solid waste disposal practices. |
| 22a-17 | 1974 | DEP shall submit annual report on coastal management activities, with summaries of expenditures and recommendations for statutory and regulatory amendments. |
| 22a-30 | 1971 | DEP shall complete tidal wetlands maps and revise them biennially. |
| 22a-368 | 1987 | Any person maintaining a water diversion prior to 7/1/83 must register. DEP has never conducted a field inventory, and many unregistered diversions of indeterminate volume are known to exist. |
| 22a-171 | 1971 | DEP shall initiate and supervise a statewide program of air pollution control education |
| 22a-174 | 1979 | DEP shall require payment of air pollution application fee to cover cost of . . . monitoring compliance. |

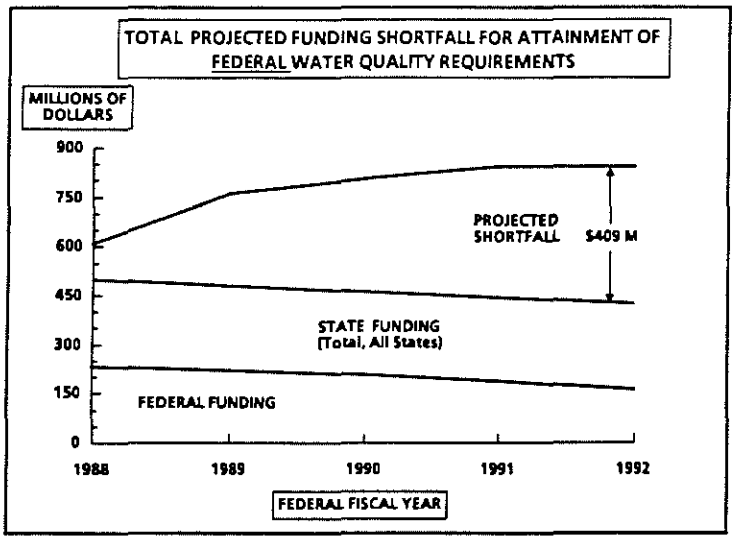
## Fees and Federal Funds

As a supplement to general funds, fee receipts and federal funds are used to support environmental programs. The DEP does collect fees for some of its services; generally, however, fees are greatly underutilized. (Reasons for this are discussed on p. 40).

Federal funds to the DEP have not compensated for Connecticut's low level of state spending. (See graph on p. 35) As discussed above, the DEP cannot meet its mandates or provide services the public expects. The need for increased state funds is strong even at current levels of federal support; it becomes urgent when projections of diminishing federal funds are considered.

The trend in environmental programs, even those which exist to meet federal mandates, is to transfer the funding responsibility away from the federal government. DEP managers have projected a loss of approximately 36 positions in the Bureau of Water Management over the next four years, due to cuts in federal funds imposed by the 1987 amendments to the Federal Clean Water Act. State funding must be increased just to maintain current (inadequate) staffing levels.

Even as federal funds shrink and the DEP struggles to meet current mandates, federal requirements grow. The impact of the 1987 Federal Clean Water Act is such that, nationwide, a $409 million funding gap is projected for 1992.




The impact of federal legislation and funding cutbacks will be felt across the nation. Each state must find the money to fund requirements imposed by federal legislation. In addition, each state is challenged to find the means to achieve its own environmental goals. Like many other states, Connecticut has ambitious goals; how does Connecticut's financial commitment to its environmental goals compare with that of other states?

## OTHER STATES

The Council was led to examine Connecticut's environmental spending by a recent Council of State Governments (COSG) report entitled "Resource Guide to State Environmental Management." The report compared the FY86 environmental expenditures of the 50 states. Connecticut ranked low: 40th in percent of total state expenditures going to the environment and 47th in per-capita expenditures on the environment. Even such traditionally-poor states as Mississippi (14th in percent, 20th in per-capita) and Louisiana (30th in percent, 32nd in per-capita) ranked higher than Connecticut.

Connecticut's sobering showing in the COSG study prompted the Council to conduct its own independent research to further review our state's financial commitment to the environment relative to other states. The Council examined the complete budgets of states ranking high in the COSG study and the budgets of other northeastern states. The Council confirmed that many states do, in fact, spend considerably more on environmental protection:

| | % of total state budget expended for environmental protection | per-capita environmental spending |
|---|---|---|
| South Dakota | 4.0 | $24.89 |
| Idaho | 3.5 | 35.80 |
| Maine | 3.5 | 42.09 |
| Vermont | 3.25 | 34.79 |
| Oregon | 3.0 | 48.80 |
| New Hampshire | 3.0 | 27.45 |
| New Jersey | 1.57 | 19.23 |
| **Connecticut** | **0.69** | **8.69** |

All data for FY86

It was apparent from the Council's review that many states increased their funding of environmental protection substantially from 1986 to 1989. The Council selected comparable states which addressed the funding challenge head-on to serve as models; their experiences illustrate pitfalls from which Connecticut can learn and successes which illustrate routes that Connecticut could follow. While all New England states spend more for environmental protection than Connecticut does (on a percent and per-capita basis), the Council chose to focus on the leaders: Vermont and Maine. New Jersey was also included as a model of an industrialized eastern state with a well-funded environmental agency. The similarities between Connecticut and New Jersey are evident in their similar national rankings in many categories, including per-capita income (1 and 2, respectively), total state general fund expenditures per capita (14 and 13), state and local taxes per $1,000 of personal income (23 and 24), average annual earnings of state/local employees (7 and 9), per-capita expenditure for wastewater treatment construction (26 and 21) and reliance on nuclear energy (3 and 5).

For each state, Council staff calculated several important indicators of financial commitment to the environment; results are presented below. These calculations do not take into consideration the differences in the purchasing power of a dollar in the various states. One million dollars buys fewer employees, less office space, less contract work, etc. in Connecticut than in Vermont or Maine. Therefore, the difference between expenditures in Connecticut and those other states is actually larger than is represented in the following graphs.

## FOCUS: ARE WE THERE YET? THE MONITORING PROBLEM

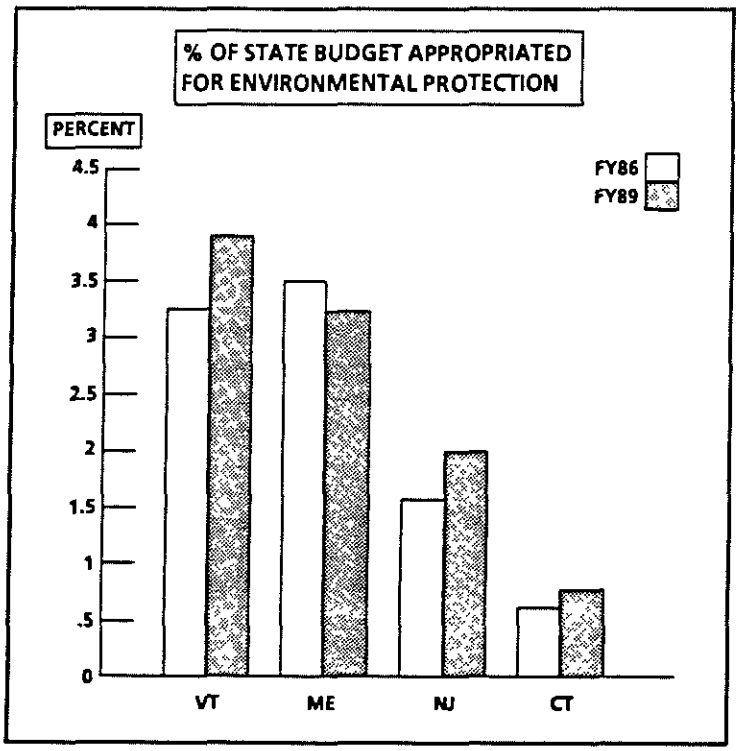
Efficient administration of any program requires knowledge of results. Unfortunately, Connecticut spends millions of dollars annually on environmental protection, and relatively little on the actual monitoring of environmental quality. Monitoring would tell us if our money is well spent. Six air pollutants are measured statewide, water quality data is collected from major streams and rivers, and a handful of wildlife populations are counted or estimated. But: no monitoring is done of toxic air pollutants; long stretches of rivers are not covered by existing water quality monitoring; and appropriations for basic geological surveys and water resources monitoring have been reduced repeatedly since 1985.

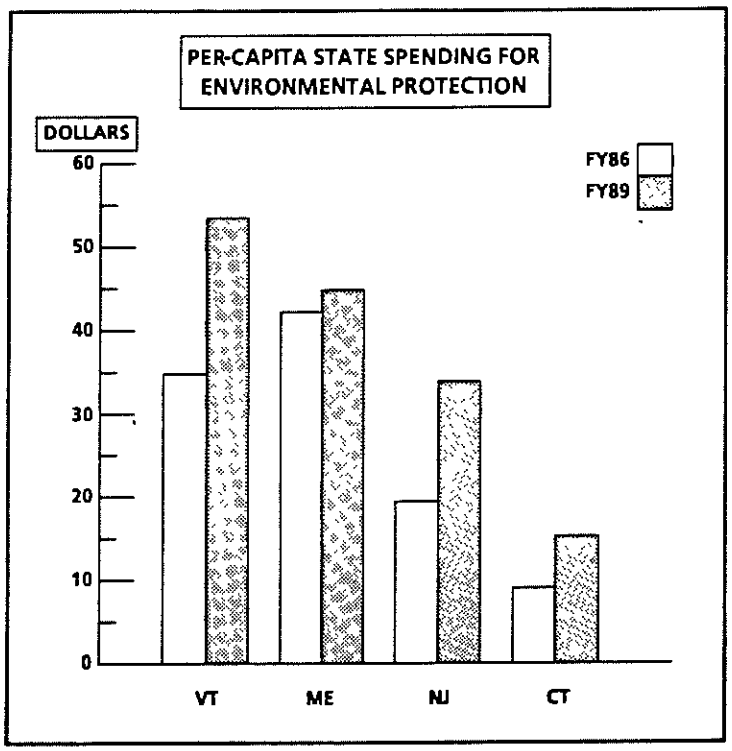
During periods of state budget cuts, there is a particularly compelling reason to collect and analyze environmental trend data: It is possible that some state expenditures are yielding more results than others. According to surveys of national and New England staff of the U.S. Environmental Protection Agency, that agency is spending most of its money on problems that do not pose the greatest threat to human health and the environment. If this is true on the state level as well, across-the-board budget cuts may be affecting the underfunded, most critical programs disproportionately. Better data and analysis could help administrators select instead the most appropriate places for those cuts.

### Percent of State Spending

The graph at right represents the percent of the state budget which is spent on environmental protection. Both general and special funds are included in the calculations.

Connecticut's percentage is less than a quarter of the New England leaders' and less than one half of New Jersey's.



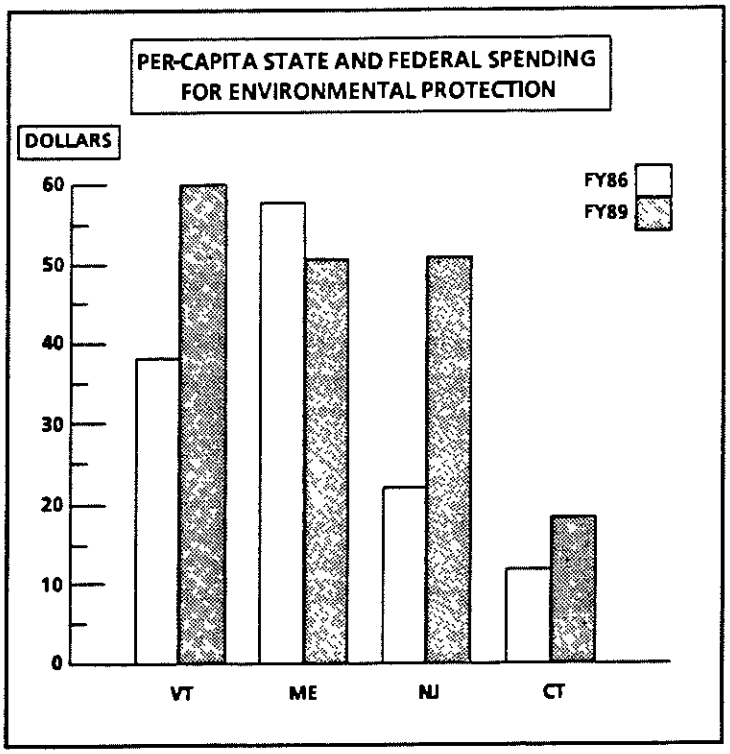


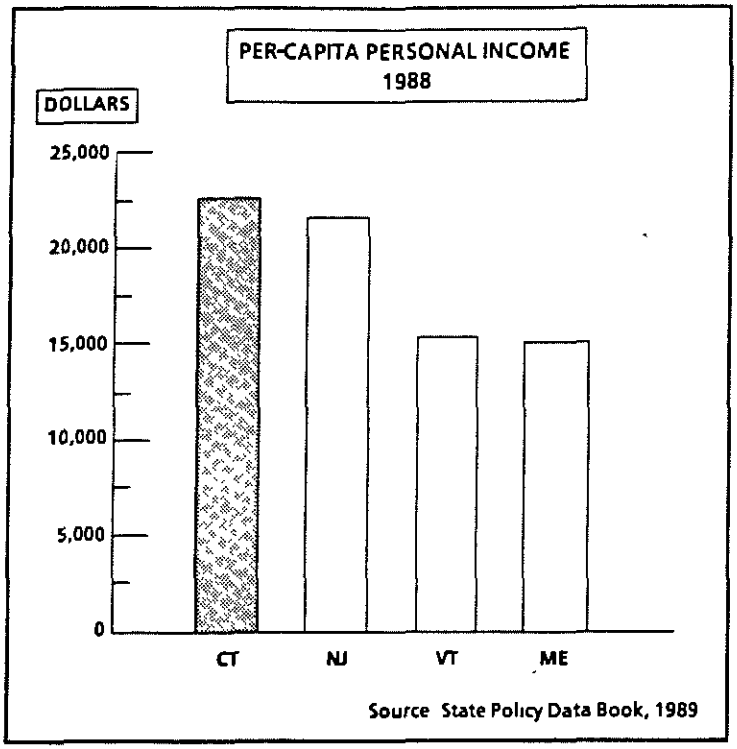

Per-Capita State Environmental Spending

Per-capita state environmental spending was calculated from a total of general and special funds. Again, Connecticut's per-capita expenditure for the environment is less than one half of New Jersey's and even further behind Vermont's and Maine's.

Per-Capita State and Federal Environmental Spending

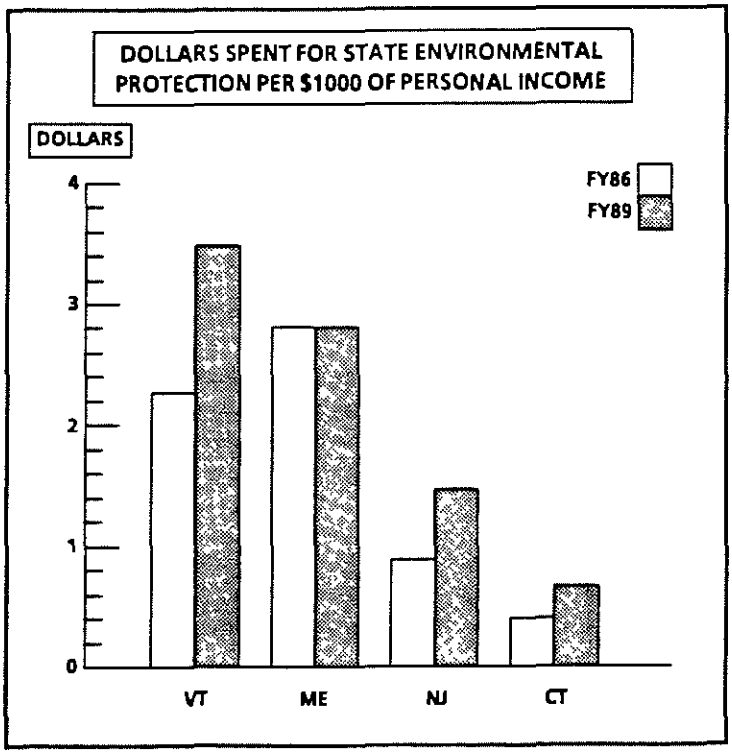
As discussed previously, federal contributions to Connecticut's environmental programs do not elevate per-capita expenditure to levels achieved by other states. This is demonstrated in the graph at right which shows the total amount of state and federal dollars spent for environmental protection per capita. The absence of adequate state support for the environment in Connecticut is not offset by federal funds.





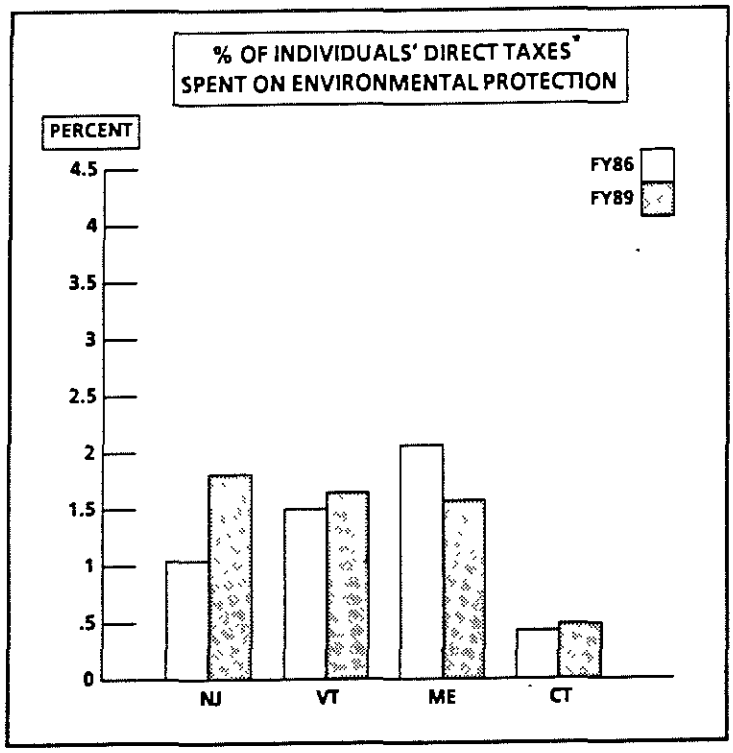

Per-Capita Income and Per-Capita Spending

The low level of per-capita environmental expenditures in Connecticut is notable in light of Connecticut's per-capita personal income, the highest of any state in the U.S. Maine and Vermont, with considerably lower per-capita incomes, both spend more per person on the environment than does Connecticut.




Spending Per $1,000 of Personal Income

The relationship between personal income and environmental spending is expressed in the following graph which shows how many dollars are spent on the environment per $1,000 of income earned in the state. Again, Connecticut's expenditure is less than one quarter of Vermont's and Maine's and less than one half of New Jersey's.




*$\frac{S \times (G - R)}{T}$ where

S = % of total state budget comprised of direct taxes on individuals,
G = general fund env spending;
R = env. agency's revenue returned to general fund ; and
T = total direct taxes on individuals

## Percent Tax Spending on Environment

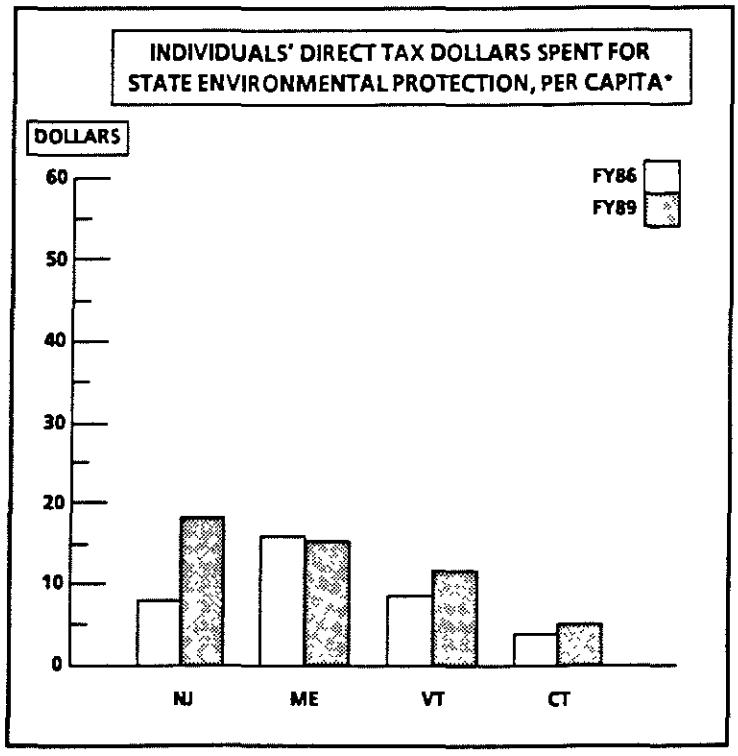
How much of the typical citizen's taxes (taxes on retail sales, gas, cigarettes, real estate conveyances, income) goes to environmental protection? The percentage has been estimated for all four states.

Connecticut citizens see a considerably smaller portion of their tax money spent on environmental protection than do citizens of Maine, Vermont and New Jersey. The 1989 percentage was at least 3 times greater in these other states than it was in Connecticut.

## Per-Capita Tax Spending

On a per-capita basis, the amount of money the individual citizen spends on environmental protection through taxes is estimated on the adjacent graph.

In 1989 the typical Connecticut resident personally paid an estimated $1,100.68 in common, direct state taxes. Of that, $5.24 was spent on protecting and conserving the environment. (As previous graphs showed, Connecticut spent more than $5.24 per person on the environment -- $15.18 to be exact -- but the latter




*$\frac{S \times (G - R)}{P}$ where

S = % of total state budget comprised of direct taxes on individuals;
G = general fund env. spending;
R = env agency's revenue returned to general fund , and
P = state population

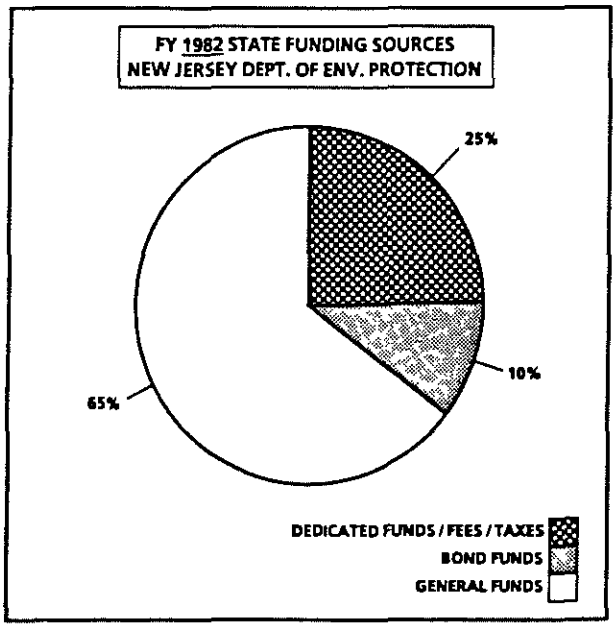
amount includes the portion of general fund appropriations attributable to corporate taxes, fee revenue, etc.)

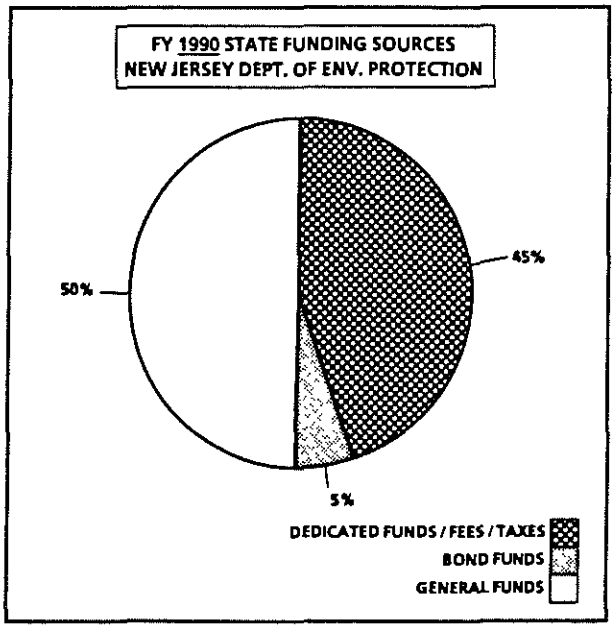
## STATE MODELS

As in Connecticut, where the total state budget grew by 39 percent from FY86 to FY89, leaders in other states are faced with costly new programs of all types. How have they maintained their financial commitment to environmental protection while the demand for state dollars has intensified? The Council explored the recent budget histories of the three comparison states to discover successful alternatives and identify the steps Connecticut might take to provide its DEP with the money needed to carry out its important mission.

### New Jersey

The growth rate of the New Jersey Department of Environmental Protection's (NJDEP's) budget from FY86 to FY89 -- 76 percent, or $107 million -- was more than twice that of the total state budget (35 percent) (figures exclude bond funds and debt service). The source of the increase was not entirely general funds. The following pie charts depict changes in the relative sources of state NJDEP operating funds from FY82 to FY90.



New Jersey is one of the leading states in the development of user fees. Its distinctive fee-setting methodology is based on the environmental damage caused by the use rather than simply the administrative cost of regulating the use. This fee structure creates an economic incentive to reduce pollution.

The utilization of fees is so extensive that New Jersey now has twelve natural resource programs and seventeen environmental quality programs which are supported entirely by fees. Below is a sampling of programs which are maintained in both states but which are 100 percent fee-supported in New Jersey:

Water Allocation
Stream Channel Encroachment
Sportmens' Programs (Hunting and Fishing)
Sanitary Landfill Closure
Surface Water Discharge
Underground Storage Tanks
Medical Waste
Spill Prevention, Response & Site Cleanup
Waterfront Development Regulation
Wetlands
Recycling

Maine

Very recently the Maine Department of Environmental Protection (MEDEP)[2] was struggling with problems similar to Connecticut's: staff shortages, administrative backlogs, and lack of public confidence. The agency was unable to carry out its mandates and provide the services demanded by public expectation. Through the help of professional management consultants and with public and industry feedback, the agency developed a comprehensive management and funding plan. The plan called for greater utilization of the existing Maine Environmental Protection Fund (MEPF), a fund supported by fees with revenue dedicated to environmental programs. The legislature responded by increasing fees and transferring many staff positions from the general fund to the MEPF.

While the idea of fee-supported programs remains a good choice for environmental quality, the Maine legislature did not manage the transition well. It viewed the MEPF as an opportunity to withdraw general funds, which dropped by 53 percent from FY86 to FY89. The unnurtured revenue-generating program could not generate the difference and the agency's budget suffered a 35 percent loss. Positions approved by the Maine legislature have gone unfilled because the revenue is not yet available. If Connecticut were to follow Maine's example, it should pay close attention to the valuable lesson learned: fee-supported programs require general fund staff and resources to develop fee regulations and

[2] In Maine, several agencies are responsible for the variety of environmental programs which are managed collectively in Connecticut by the CTDEP. The MEDEP is responsible for most of the pollution-oriented regulatory programs commonly considered "environmental quality" programs. This isolated section deals only with the MEDEP budget; however, in all other sections of this report budgetary information for environmental spending in Maine incorporates monies spent by the entire host of agencies.

perform other tasks essential to collection of revenue. The commitment to fee-supported programs was wise but, as other states have shown, a concurrent commitment to general fund expenditures is also needed. It is not enough to initiate a fee system by statute; continued legislative oversight is necessary.

Vermont

Vermont leaders demonstrate their commitment to the environment by continually increasing the state's already-high percentage of state appropriations for environmental programs. A 1987 legislative action created a dedicated environmental fee fund which pays for some department staff. Several permit fees have been increased significantly since the fund's creation; these increases were supported by the regulated community, which was frustrated by the agency's inability to process permit applications in a timely fashion. A stipulation of the bill which created the fund requires the agency to adhere to a strict review schedule for applications: reports must be made quarterly to the governor on the agency's compliance with these performance standards.

In addition to the increased fee receipts which are returned to support operating costs, the agency has benefited from a healthy general fund contribution which continues to grow as a percent of state spending. The growth in special funds to the agency (81 percent or five million dollars) from FY86 to FY89 did not deter Vermont's leaders from increasing the general fund contribution by 70 percent over the same period (while overall general fund growth totalled 46 percent for that period).

## POTENTIAL REVENUE SOURCES

The DEP is studying its schedule of fees and other revenue sources at this time. The following discussion is intended to illustrate the potential of various programs; the General Assembly will need to consult the expertise of the DEP staff for greater detail.

1. Permit Fees. The DEP's Branch of Environmental Quality (EQ) charges 27 different fees. In 1989, the fees generated $1,447,600 for the general fund, millions less than the potential. There are three categories of uncollected fees:

a. Fees owed to the state but not collected. Water discharge permits issued by the DEP are for five year-periods. Permittees are required to pay an annual fee; some do, others do not, and the DEP does not have staff to devote to bill collection. At least one million dollars go uncollected annually; industry representatives calculate the amount to be closer to three million dollars. To pull someone from another task to collect unpaid bills only puts the DEP further behind in its regulatory work, as the fees collected are not returned to the DEP to finance more staff.

FOCUS: THE BACKLOG PROBLEM

-- A business discovers chemical contamination on its property and volunteers to remove the contaminated soil. Not wanting to begin until its remediation plan is reviewed by the DEP, this voluntary clean-up action is delayed months pending DEP review. Ground water quality is threatened while the DEP staff addresses dozens of similar, and potentially more damaging, problems first.

-- A boat-owner buys a new boat, and wants to enlarge her dock. Six months after submitting an application, notice is published that review of the application is about to begin. If dissenting comments are filed by neighbors, she may not see her permit for the two years it might take to hold hearings and review evidence. The DEP now receives about 200 structures and dredging permit applications yearly, and processes nearly the same number. Because of past staff shortages, however, a backlog of 340 applications is in the files.

-- The Transfer Act, which requires commercial property-owners to notify the DEP of any chemical contamination problems before transferring the property, is legendary among realtors, bankers and lawyers for its backlogs. Never staffed adequately, this five-year-old program has a backlog of cases that itself would take existing staff five years to clean up if no more notices were received. In 1989, the General Assembly identified an opportunity to have industry pay for the cost of the program by tying it to fees and the Emergency Spill Response Fund; if implemented, the changes would provide a good example of appropriate funding of regulatory programs.

Backlogs benefit no party. They do not even benefit the environment. Some businesses reportedly wait a year for action on their applications for water discharge permit renewals. Renewals generally entail more stringent discharge limits, so a delay in issuing a renewal is a delay in environmental improvement.

b. Fees authorized by statute, but not charged. The DEP administers 19 regulatory programs for which no fees are charged, despite statutory authorization to charge them. Examples include many types of air pollution inspections and reports (2,000/year), stream channel encroachment line permits (30/year), tidal wetlands and structures and dredging permits (200+/year), and permits for the construction and operation of solid waste facilities (65/year) including trash-to-energy plants, landfills, and transfer stations.

If all applicants for the above permits were charged application fees, as well as fees sufficient to cover the cost of inspecting for compliance, annual revenue would total in the millions of

dollars. Application fees for major water diversion projects, though not numerous, would be large. In the case of structures and dredging, portions of the regulated community are reported to be advocating the implementation of application fees equal to one percent of a project's cost; with 200 or more applications submitted annually, some for multi-million dollar projects, the annual revenue would likely be in the hundreds of thousands of dollars for that program alone.

The reason that fee structures have never been established for these programs is straightforward. Fees must be adopted through regulation. The process of developing formulas, drafting regulations, holding the requisite hearings and following other legally-required administrative procedures consumes six months to a year or more. Typically, several staff members are involved intermittently during that time. The formulas must be worked out carefully and be legally defensible. (New Jersey's first attempt at a fee schedule was rejected by a state court.) Program managers are reluctant to invest the staff time to these tasks because to do so would only worsen the workload and regulatory backlogs, and none of the fee revenue would be returned to the program to hire the necessary additional staff.

## FOCUS: COMMUNICATION

States with well-funded and successful environmental protection programs report a high priority on providing information to citizens. Useful information breeds understanding and support for the state's efforts. In contrast to those states, the Connecticut Department of Environmental Protection reassigned nearly all of its public participation staff to other duties during the 1980s. As a result, the Council has heard from industry officials, surprised and frustrated by the lack of a central office from which all pertinent regulations could be obtained, and from citizens, who fail to understand how the DEP's regulations can allow it to issue permits to new pollution sources where the air and water already fail to meet standards. In a September, 1989 Special Report, the Council concluded that even when the DEP proceeds logically and properly, the public often has little understanding of what it is the DEP is doing. The General Assembly was on the right track when it required the DEP to develop statewide programs of risk communication and air pollution education; these and similar programs in all DEP bureaus should be funded.

Ironically, a significant amount of DEP staff time is being used to answer requests for information, but the requests are inappropriate. There has been a trend among attorneys and consultants, in attempts to reduce their own research time, to invoke the Freedom of Information Act in requesting all information about a firm or property in the DEP's files. The DEP should be authorized to charge (and retain) substantial fees to commercial enterprises which submit Freedom of Information requests along the lines of "Send me all information in your files about the Grant Conglomerate Corporation." Collection of a substantial fee would allow the DEP to hire staff to handle such requests, and encourage the requestors themselves to look through the files.

c. Potential fees not yet authorized by statute. The Council identified approximately 10 DEP regulatory programs which have the potential for generating fee revenue, but for which the DEP has no authority to charge. Judgment of their suitability for fees is based on the programs' comparability to DEP programs for which fees are charged. Examples of regulatory activities for which fees could be authorized include x-ray inspections, PCB and toxic substances inspections, and underground storage tank enforcement inspections. The Council did not estimate potential revenue for this category.

2. Charge state agencies. At first glance, there might seem to be little sense in one state agency charging another for permits or services. It is done routinely, however, by agencies other than the DEP. When the State Police or any other agency, including the DEP, proposes to build a communications tower and applies to the Connecticut Siting Council for a Certificate of Environmental Compatibility, it pays the Council a sum equal to the cost of reviewing the application, as any private-sector applicant would. There are two benefits to this arrangement: 1) The budget of the applicant agency accurately reflects the total cost to the state of developing the proposed project, and 2) the reviewing agency is able to recoup all of its costs and maintain its 100 percent reliance on application fees, preserving its independence of the general fund.

The DEP also pays other state agencies for non-regulatory services (e.g., laboratory analysis fees to the Department of Health Services), but collects no such fees in return. The Department of Transportation and other agencies routinely use natural resources data collected by the DEP, for which the DEP charges no fees.

3. Effluent charges and impact fees ("Polluter Pays"). Rather than charging regulated industries on the basis of the administrative burden they impose, the DEP could set fee schedules which correspond to the amount and/or toxicity of pollutants discharged. New Jersey's water pollution permit fees provide an example. Surface water discharge fees are calculated using the following formula:

(environmental impact x rate) + minimum fee

where environmental impact is defined as [(total pollutant load + heat load) x (bioassay factor + stream factor)].

It would be particularly appropriate to apply effluent charges to pollution sources which currently escape most regulations. So-called "fugitive" emissions -- chemicals emitted from a factory or other source through windows, unregulated exhaust fans, and other vents -- are not covered by sources' air quality permits and, according to 1987 statewide data, exceed hazardous air pollutant emissions from permitted stacks. At present, the DEP has no formal program to address this sizable pollution problem, which a per-pound charge could (if dedicated to that program) help to solve.

The "polluter pays" concept is not limited to air and water discharges; "impact fees" can be assessed for development projects that affect streams, wetlands, tidelands, and other resources.

Effluent charges and impact fees could be new fees, or revised versions of existing fees; in either case, statutory authorization would be required.

4. User fees ("Beneficiary Pays"). The Department of Environmental Protection's Branch of Environmental Conservation (EC) (formerly the Division of Conservation and Preservation (C&P)) collects more than six million dollars annually ($6.2 million in FY89) from park admissions, hunting and fishing licenses, and related sources. The revenue is not dedicated, and is less than the $19 million the Branch spends from the General Fund. The Department must set fees high enough to generate significant revenue but not so high as to affect low-income persons' ability to enjoy state parks. Parking and admission fees have not been increased since 1985. There are additional, specialized fees which have never been established in Connecticut. Two examples are a state waterfowl hunting stamp (implemented in many states) and a saltwater fishing license. The three hundred and fifty thousand saltwater anglers in Connecticut would, if required to purchase a three-dollar license, produce more than a million dollars annually. There would be no political support from outdoorsmen for such a license unless the revenue were earmarked for saltwater fishing improvements. Similarly, users of the waterfowl resources would not have an interest in a state duck stamp if the money went to the general fund.

5. Special Transportation Fund. Because the regulation of transportation projects burdens the DEP, and because the projects themselves frequently have adverse impacts on the environment, the Council has considered ways for highway users to pay some of the associated costs, through the gas tax. In Vermont, for example, gas tax revenues are used to build and maintain roads and bridges in state parks and forests. Could the same be done in Connecticut? Could the Special Transportation Fund be used to rectify environmental problems caused by transportation projects, such as the restoration of coastal embayments choked by highway and railroad causeways? Could the Fund be used to pay for DEP staff that reviews permit applications from the DOT?

According to the DOT, bond covenants require that all gas tax revenues be used to support transportation projects. Restoration projects could be undertaken, but only in association with a specific proposed project, where the former could be "credited" as mitigation for unavoidable environmental impacts of the latter. The DOT has been doing some maintenance in parks, and is prepared to do some road work. Such work is funded from the appropriated portion of the Special Transportation Fund.

While opportunities to tap the Special Transportation Fund for DEP costs appear to be limited, the DEP should make maximum benefit of opportunities to require mitigation work in association with permitted projects. The Council salutes the DOT's willingness to help the DEP with parks and park roads, but suggests that the DEP's budget should be

increased sufficiently to cover the costs of maintaining parks. It is likely that the DOT will find its own responsibilities escalating in the future, and will be unable to contribute as many services to the DEP.

6. Stamps, Art, Voluntary Contributions, Private-Sector "Park Adoptions". Late in 1989, the DEP launched a series of limited edition wildlife posters; revenues are earmarked for the non-harvested wildlife management program (C.G.S. Section 26-107i). Opportunities for similar programs are probably limited; voluntary contributions rarely yield much revenue in other states (excepting check-offs for wildlife on income tax forms in certain states). However, there may be opportunities for striking partnerships with corporations or other private-sector organizations for "adopting" parks. Such partnerships could help the DEP to stretch available resources but would themselves require staff to initiate and coordinate.

7. Penalties. Certain financial penalties imposed on violators of environmental laws are returned to the DEP through the Emergency Spill Response Fund. Other penalties, including more than one million dollars annually from water pollution violations, are returned to the general fund. Efforts to earmark penalties for the DEP sometimes encounter opposition from the regulated community, which envisions the DEP in the role of a small-town police department that sets up speed traps for the sole purpose of generating revenue. If the DEP is funded properly through permit fees and general fund appropriations, there is no need to earmark penalties for operating costs, but it would make sense to earmark the money for other unmet environmental needs (i.e., restoration of shellfish or wildlife habitats).

8. Other revenue sources. Interesting revenue sources used by environmental protection departments in other states include a) taxes and deposits on vehicles and tires, with revenue (or unredeemed deposits) used to dispose of junked vehicles and tires, b) real estate conveyance taxes, c) surcharge on water bills to fund related programs (Rhode Island), d) a tax on cigarettes to fund water pollution programs (Washington), and e) sale of subscriptions to regulated industries, for prompt copies of all new and revised regulations.

9. Increased General Fund Appropriations. Current general fund appropriations to the DEP are modest. Even doubling those appropriations -- an amount much larger than the Council's recommendation -- would place Connecticut near the median of the 50 states in per-capita environmental spending, as calculated by the Council of State Governments. Regardless of additional funds raised through permit fees, there will be a need for general fund appropriations to support many DEP functions. In view of public support for environmental protection, and the modest level of state spending for the same, there would appear to be ample reason and opportunity to increase general fund appropriations by several million dollars over the next three years.

See Part III of this Annual Report for another two sources: fees collected from the sale of sand and gravel mined from state waters, and fees collected for the private use of public trust lands.

## THE DEDICATED FUND

By dedicated fund, the Council means a fund into which specific revenues are deposited, and from which money is appropriated to specific, related expenses. It need not be an account that is strictly separate; the Council considers as dedicated funds those revenues which are deposited in the general fund and, by statute, "credited to the appropriation of the agency" for a particular purpose. Using this definition of a dedicated fund, the Council counts at least eight dedicated funds under the purview of the DEP, four of which are of some consequence: the Emergency Spill Response Fund, the Boating Fund, the Recycling Fund, and the Dioxin-sampling Fund.

Despite the success of the Emergency Spill Response Fund (the uses of which have been broadened far beyond its original scope) and the Boating Fund, the General Assembly has traditionally been reluctant to establish dedicated funds. The Council understands fully the reasons for this reluctance: It is the duty of the Governor and the General Assembly to collect the money owed to the state, and to appropriate it according to the greatest needs. A proliferation of dedicated funds places too much money beyond the control of elected officials who presumably were elected to solve the state's problems. Furthermore, there have been dedicated revenue programs in the past for which revenue failed to match program needs over the long term; as special revenue had to be supplemented with general fund appropriations, the impetus and the logic for a dedicated fund were greatly diminished.

The Council believes that all of these concerns can be addressed satisfactorily (see recommendations, below) and strongly advocates establishment of specific, dedicated environmental funds for two important reasons:

1. By failing to enact dedicated funds, the state is losing money. If the revenue resulted in a higher level of service from the DEP, many regulated industries would support higher fees. Citizen groups would also support them for the environmental improvements that would be gained. When the fees are not dedicated, there is no support, from any sector, for new or higher fees. Consequently, the money is not collected, and the quality of environmental services suffers. A dedicated fund is a win-win: more revenue, better services.

2. Certain environmental regulatory programs are especially suited to a dedicated fee structure. The Connecticut Siting Council provides an excellent model. Its annual appropriations are reviewed by the legislature's Appropriations Committee, but the General Assembly never needs to worry about the revenues; application fees from regulated industries and agencies are credited to the Council's account, and they fully support the Council's operations. As New Jersey has shown, many environmental regulatory programs can be one hundred percent fee-supported. A nationwide survey by the U.S. Environmental Protection Agency of state officials who manage programs supported by fees revealed no significant problems.

In considering the establishment of dedicated funds, the General Assembly should recognize that fees for services are not taxes.

RECOMMENDATIONS

The State of Connecticut should adopt the following courses of action for implementation in the next one to three years. Some changes can be implemented immediately, while some need to be phased in:

1. Establish a goal. The Administration and the General Assembly should adopt a goal for state environmental spending. The Council estimates that a DEP operating budget (non-federal) of 70 to 75 million dollars -- an amount equal to approximately one percent of the total state budget -- would be adequate to meet current responsibilities. Following the lead of other states, the initial emphasis should be on stepped-up collection and dedication of fees, with the balance to be made up from the general fund.

Within the Branch of Environmental Quality

2. Establish a dedicated fund for regulatory programs. The General Assembly should establish one or more dedicated, fee-supported funds for regulatory programs in the DEP's Branch of Environmental Quality. Fees should support one hundred percent of the costs of processing and evaluating applications and monitoring permittees for compliance. (See number 8, below, for costs that should not be supported one hundred percent by fees.) The dedicated fund need not be separate from the General Fund; standard "earmarking" language and separate accounting of the fees would be sufficient.

3. Collect all fees owed. The DEP should establish an effective mechanism for collecting all annual permit fees owed to it.

4. Increase fees and establish new fees which are currently authorized. The DEP should establish fees for all regulatory programs for which such fees are statutorily authorized at present. Application fees should be sufficient to support application processing, review by engineers and analysts, publishing of public notice, and inspection for compliance. Staff work associated with enforcement orders should also be fee-supported, with separate fees paid by violators.

5. Authorize new fees. The General Assembly should authorize the collection of fees for all regulatory programs that do not have such authorization at present. Such fees should be deposited in the dedicated fund(s).

The General Assembly should simultaneously authorize enough general fund staff positions so that regulations can be written, fee schedules calculated, and a collection mechanism implemented. As these tasks are completed, and as fee revenue is returned to the DEP, start-up staff can be re-assigned to other general fund duties.

To allay any concerns that the fees might yield surplus revenue that would better be spent elsewhere, or that the DEP might fail to improve its services to the regulated industries, safeguards can be legislated. The General Assembly can specify performance standards for the DEP (e.g.,

application review must be initiated within 45 days), and can require reports from the DEP on its performance. Expenditures from the fund should be reviewed by the legislature annually.

6. Establish effluent charges for toxic emissions; dedicate revenue. The General Assembly should establish effluent charges (i.e. on a per-pound basis) for emissions of toxic or hazardous substances into the air. Revenue should be dedicated to two DEP programs which now have no or little funding: regulation of hazardous air pollutants and regulation of "fugitive" (unregulated) toxic air emissions.

7. Charge state agencies for permits. The General Assembly should adopt the Connecticut Siting Council model, and ensure that DEP regulatory programs are 100 percent fee-supported by requiring state agencies, like industries, to pay application fees. (See p. 43 for earlier discussion.)

8. Increase General Fund appropriations to DEP. Approximately twelve positions will be needed to write and revise the regulations and develop the administrative procedures needed to collect the millions of dollars in fees. In addition, general fund money will be needed to support the following Branch of Environmental Quality functions which should not be funded from dedicated fees:

- long-range planning and development of standards
- monitoring of air, streams, lakes, etc.; basic data collection
- remainder of EQ needs
- support staff, DEP Central Office, and Environmental Services
- public education programs
- technical assistance; pollution reduction programs
- investigation of "outlaw" (non-permitted) companies

Reasons for keeping the above functions on the General Fund are both philosophical and practical. Why should an industry pay a fee to cover expenses that are in no direct way related to the service it is receiving nor to the environmental harm it is causing? The Council believes the public should pay for programs that benefit everyone equally, and notes that officials in other states with dedicated fees recommend, for practical purposes, that the functions noted above are best not tied to fees.

Until an exact assessment of potential fee revenue can be obtained from the DEP, it is unclear how much larger the General Fund appropriation will need to be. Perhaps only modest increases will be necessary as some existing general fund engineering positions become funded by fee revenue. It is important to remember that the overall goal is to improve the level of DEP services by increasing its total budget; the General Fund appropriation to the DEP cannot be reduced as fees increase.

Within the Branch of Environmental Conservation
(formerly Division of Conservation & Preservation)

9. Keep the DEP's Branch of Environmental Conservation on the General Fund. Park and sportsmen's fees do not cover the full costs of parks, forestry, wildlife and fisheries programs in the Branch of Environmental

Conservation, nor should they. Park and sportsmen's fees would always need to be supplemented by General Fund appropriations. Those programs would not be good candidates for dedicated funding. The General Assembly should appropriate enough money to ensure that all citizens can derive the benefits of Environmental Conservation programs, recognizing that much of that money will be returned by park fees, sportsmen's fees as well as payments from the sale of timber in state forests.

10. Restore park and forest staff to 1974 levels. The General Assembly should increase general fund support for parks and forests to restore maintenance and management staff to, at the least, 1974 levels. As a start, enough funds to regain 1987 staff levels (still 61 positions short of 1974 levels) could be obtained by raising parking fees and park admission fees by 100 percent (an increase of fifty cents to two dollars, depending on the park).

11. Consider a saltwater angling license. The General Assembly should consider requiring a special, inexpensive fishing license for saltwater fishing, but only if the revenue is dedicated to coastal fishery habitat restoration and improvement.

Related Issues

12. Subaqueous Mining Fees. The DEP or the General Assembly should raise substantially the fees collected from the mining of sand and gravel in state waters to better reflect the worth of the materials to mining companies (which in turn sell the materials at the market rate). Mining fee revenue should be dedicated to environmental improvement projects (such as restoration of degraded coastal embayments), rather than DEP operating costs; revenue will be too unreliable to support staff positions if the DEP adopts more stringent water quality standards and prohibits some mining activities.

13. Penalties. Civil and criminal penalties collected from violators of environmental laws should, by statute, be dedicated to environmental restoration projects (i.e., tidal wetlands restoration, coastal embayment restoration, etc.).

14. DOT Cooperation. The DEP should continue to work with the DOT in determining the highest priorities for using DOT funds to mitigate unavoidable environmental impacts of transportation projects; restoration/mitigation projects are most appropriately paid for by transportation project users, through the Special Transportation Fund.

15. Voluntary Contributions. The DEP should investigate private-sector park "adoptions" and other programs that have proved successful in stretching public dollars in other states. The General Assembly should ensure that the DEP is provided with staff to initiate and coordinate such contributions.

## FOCUS: FISCAL NOTES AND UNBRIDLED OPTIMISM

The General Assembly has a tool for matching appropriations to new departmental responsibilities: the fiscal note. Appended to every bill before the legislature is the Office of Fiscal Analysis' explanation of that bill's potential cost to state agencies and municipalities.

The following is an excerpt from the fiscal note for the 1982 Water Diversion Policy Act:

> "There would be no cost to the Department of Environmental Protection as a result of administering or implementing the provisions of this bill ... Any additional workload due to permits or hearings, as well as costs associated with adopting regulations, would be absorbed ... It is estimated that any cost in future years could be absorbed" (emphasis added).

Eight years later, the DEP is still working on the regulations. More than eighty permit and enforcement cases are backlogged. Applicants must wait a year or more for DEP action. Illegal diversions are numerous. The DEP unit administering the program is unable to reassign staff from other regulatory programs because those programs are backlogged too.

What happened? The most reasonable explanation is that many parties -- conservation organizations, legislators, and the DEP itself -- perceived such an overwhelming need to regulate stream diversions that they convinced General Assembly members and staff that expenses would be minimal. In hindsight, they were correct about the need. The Water Diversion Policy Act is the principal law by which the DEP allocates the state's water resources among the competing demands of water utilities, hydroelectric generators, fish and wildlife, and other users of our streams and rivers. While most applications are approved, the DEP has used the law to disallow some diversions which, if unregulated, would have taken virtually all the clean water from the subject streams. However, it was naive for everyone to think that complex technical analyses of immense diversions could be done at no cost to the state. As an alternative to allocating scarce general fund money to the new program, the General Assembly could have required the diversion program to be fee-supported, but it did not do so. The result has been a chronically-underfunded program of major importance to the environmental quality of the state; applicants receive poor service, and numerous illegal diversions continue unabated.

This case, by no means unique, provides an obvious lesson for the future: be honest in estimating the cost of a program and always find a way to provide funding before adding it to the DEP's workload.

### The Future

16. No more responsibilities without resources. From 1990 forward, the General Assembly should not add additional responsibilities to the DEP without providing sufficient resources.

# *PART V*

# *1989 ACTIVITIES OF THE C.E.Q.*

## 1989 ACTIVITIES OF THE COUNCIL ON ENVIRONMENTAL QUALITY

The Council maintained the course it charted in 1985: In-depth evaluations of selected state environmental problems, careful review of state agency construction projects, and thorough investigation of citizen complaints. Highlights of 1989 CEQ activity include the following:

-- In June, 1989, the Council released a Special Report, "Recent Trends in DEP Decision-making." The Council called attention to a new, consistent pattern of decision-making by the Department of Environmental Protection (DEP) that is highly protective of the public's rights to a clean and healthful environment, and credited Commissioner Leslie Carothers and her staff for the renewed emphasis on policy in permit decisions and enforcement.

-- In September, 1989, the Council released another Special Report, "The Department of Environmental Protection's Ability to Regulate Cumulative Impacts of Proposed Facilities, with Special Reference to Southeastern Connecticut." The Council recommended only a few changes to statutes and regulations, but concluded that the public had a poor understanding of the way in which the DEP operates, partly because former DEP public participation staff were reassigned to other duties. The issue was brought to the Council's attention by citizens who wondered how the DEP could approve yet more pollution discharges to areas where the air and rivers were already failing to meet state goals. There are answers to the citizens' questions but, at present, no good ways for the information to be delivered. The Council plans to continue work on this problem in 1990.

-- The Council reviewed and commented on all Environmental Impact Evaluations and Findings of No Significant Impact prepared by state agencies, which reached a record number (26) in 1989. For the second straight year, the majority of the impact documents earned a "passing grade" from the Council, in contrast to ones produced in the years prior to the Council's 1987 report on the generally poor quality of impact documents.

-- Following a practice established in 1985, the Council submitted testimony to the Connecticut Siting Council and the DEP on a few carefully-selected permit applications where important precedents were likely to be established. The cases included a proposed resource recovery facility, a proposed communications tower in a state forest, and a proposed restaurant in a river.

-- The Council investigated more than forty complaints (in addition to uncounted routine requests for information and referrals), encompassing all aspects of environmental protection. The Council helped citizens to obtain enforcement action against violations that had lingered for months or years. The Council finds it can be particularly helpful when investigating complaints against practices of state agencies. Examples include erosion problems, apparent dumping in wetlands, and a project that was started without appropriate environmental approvals. Many complaints called attention to possible defects in state regulations or procedures which the Council plans to continue investigating in 1990.

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

# CEQ Members

Gregory A. Sharp, Chairman. Resident of Northford. Partner in the law firm of Murtha, Cullina, Richter, and Pinney. Formerly employed by the Connecticut Department of Environmental Protection. Chairman, Conservation and Environmental Quality Section of Connecticut Bar Association. Member, Department of Health Services' Scientific Advisory Panel. Member, Steering Committee, Earth Day 20. Secretary, Injured and Orphaned Wildlife, Inc. Former member, DEP Environment 2000 Advisory Committee. Formerly on board of directors, Connecticut Audubon Society, and Connecticut Fund for the Environment. Former member, Governor's Pesticides Task Force. Former member, Solid Waste Management Advisory Council.

Barbara Ellis-Uchino. Resident of Woodbridge. Former owner, Q Press, Inc. Former Editor-in-chief, Woodbridge-Bethany Bulletin, The Orange Bulletin. Formerly on board of directors of Connecticut Fund for the Environment. Treasurer, West Rock Ridge Park Association. Formerly on board of directors, Connecticut Chapter of Sierra Club, also chair of its political action committee and New Haven Group. Former publicity chair, League of Women Voters of Amity.

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-chair, Greater Hartford Chapter, American Red Cross. Corporator, Newington Children's Hospital. Member, State Ethics Commission.

John D. Pagini. Resident of Coventry. Director of Planning and Community Development, Town of Enfield. Former Senior Land Use Analyst, Robinson & Cole. Former Environmental Planner, Town of Glastonbury. Former member (1979-1981) and chairman (1980-1981), Coventry Planning and Zoning Commission and Inland Wetlands Agency. Recipient, Professional Conservationist Award, Connecticut Association of Soil and Water Conservation Districts (1980). Member, American Planning Association.

Norman C. Smith. Resident of Mystic. Former chairman, Georgia Conservancy. Recipient of Governor's Conservationist-of-the-Year award as nominated by Georgia Sportsmens Federation and National Wildlife Federation. Former member, Conservation Commission, Newark, Delaware. Former President, Mashantucket Land Bureau. Former member, Inland Wetlands Agency, Town of Groton. Trustee, Connecticut River Foundation (President, 1986-'89). Former member, Committee for the Connecticut River, The Nature Conservancy.

Peter M. Stern. Resident of Glastonbury. Planning consultant, The Futures Group. Chairman, Glastonbury Conservation and Inland Wetlands Commission (member since 1974). Vice-president, Kongscut Land Trust. Member, Issues Committee, Connecticut Audubon Society; Board of Directors, Great Meadows Conservation Trust. Member, Steering Committee, Earth Day 20. Former Vice-President for Corporate and Environmental Planning, Northeast Utilities. Former Assistant Research Director, The Conservation Foundation.

Mary 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-President, Southeastern Connecticut Regional Planning Agency (Delegate, 19 years); former chairman of its 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.

Dana Waring. Resident of Glastonbury. Vice-chairman, Glastonbury Conservation and Inland Wetlands Commission. Member, Advisory Board, Connecticut Land Trust Service Bureau. President and founder, Kongscut Land Trust. Former trustee, Connecticut Chapter of The Nature Conservancy. Formerly on board of directors, Connecticut Environmental Mediation Center. Former engineering manager, Pratt and Whitney Aircraft Corp., and consultant to United Technologies Corporation. Licensed professional engineer.

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