

ANNUAL REPORT
OF THE
COUNCIL ON ENVIRONMENTAL QUALITY

January, 1973

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COUNCIL ON ENVIRONMENTAL QUALITY

Annual Report

Forward

The Council on Environmental Quality, which commenced its activities in October of 1971, operated for the first year with the nine lay members performing all the required functions. Late in 1972, pursuant to legislative authorization, an Executive Director was secured.

This first annual report is intended as a general overview of environmental conditions pertaining to the State as viewed by an intensely interested citizen's group. It is not intended to provide the details of an environmental program for the State of Connecticut.

I. AIR QUALITY

Connecticut ranks among the most highly industrialized states in the country. This, plus a high population density and the impact of inter-state pollutant transfer from adjacent areas resulted in the need for a state clean air program.

Connecticut is divided into four federally-designated air quality control regions. The southwest region and the New Haven-Hartford-Springfield region have a rating of I, the most severe rating. The eastern region and the northwestern region have III ratings, the lowest or least severe. These ratings are made in terms of six major pollutants: particulates, sulfur dioxide, oxides of nitrogen, carbon monoxide, oxidants and hydrocarbons.

NATIONAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Primary	Secondary
Particulate Matter		
Annual geometric mean	75	60
Maximum 24-hour concentration*	260	150
Sulfur Oxides		
Annual arithmetic mean	80 (.03 ppm)	60 (.02 ppm)
Maximum 24-hour concentration*	365 (.14 ppm)	260 (.1 ppm)
Maximum 3-hour concentration*		1,300 (.5 ppm)
Carbon Monoxide		
Maximum 8-hour concentration*	10 (9 ppm)	
Maximum 1-hour concentration*	40 (35 ppm)	same as primary
Photochemical Oxidants		
Maximum 1-hour concentration*	160 (.08 ppm)	same as primary
Hydrocarbons		
Maximum 3-hour (6-9 am) concentration*	160 (.24 ppm)	same as primary
Nitrogen Oxides		
Annual arithmetic mean	100 (.05 ppm)	same as primary

(All measurements are expressed in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) except for those for carbon monoxide, which are expressed in milligrams per cubic meter (mg/m^3). Equivalent measurements in parts per million (ppm) are given for the gaseous pollutants.)

*Not to be exceeded more than once a year.

In the above table, the "primary" standards are set by the Federal Environmental Protection Agency (EPA) and are geared to the necessary levels to protect public health. The "secondary" standards are in turn set by EPA to adequately protect public welfare.

Connecticut's air compliance program has been formulated to achieve the more stringent secondary standards. The following Compliance Schedule is taken from the State Department of Environmental Protection's Air Quality Implementation Plan.

Compliance Schedule

	<u>Reg. No.</u>	
<u>OPEN BURNING</u>		
Open Burning	2.1	Effective Date 6/1/72 of Compliance
<u>PARTICULATE EMISSIONS</u>		
Fugitive Dust	3.2, }	Effective Date 6/1/72 of Compliance
Fuel Burning	3.4 }	
Visible Emissions	3.1	Effective Date 6/1/73 or According to Approved Plan (as expeditiously as practicable; not later than 4/1/74)
Incineration	3.3	
Process Industries	3.5, 3.6 }	
<u>SULFUR COMPOUND EMISSIONS</u>		
Fuel Combustion	4.1	.5% Requirements Compliance Date for Sales . 9/1/72 Compliance Date for Use . . 4/1/73

Non-Fuel Combustion 4.2, 4.3, }
4.4, 4.5, }
4.6

Effective Date 6/1/73 or
of Compliance According to
Approved Plan
(as expeditiously
as practicable;
not later than
4/1/74)

ORGANIC COMPOUND EMISSIONS

Volatile Organic 5.1, 5.2 }
Compounds, Pumps, 5.3, 5.4 }
Waste Gas Disposal, 5.5, 5.6.1 }
Organic Solvents 5.6.2, 5.6.4, }
5.6.5, 5.6.6, }
5.6.7, 5.6.8, }
5.6.9

Effective Date 6/1/73
of Compliance According to
Approved Plan
(as expeditiously
as practicable;
not later than
4/1/74)

Hydrocarbon 5.6.3
Emissions

Effective Date 6/1/73
of Compliance According to
Approved Plan
(as expeditiously
as practicable;
not later than
4/1/75)

Architectural 5.7.1
Coating

Sale of Reactive Paints . 1/1/74
or Thinner Compliance

5.7.2

Use of Reactive Paints . 1/1/75
or Thinner Compliance

Exemption 5.9.1
of Solvents

Effective Date 6/1/72
of Compliance

Cancellation 5.9.2

Effective Date 1/1/75
of Compliance

CARBON MONOXIDE EMISSIONS

6.1,
6.2

Effective Date 6/1/73
of Compliance According to
Approved Plan
(as expeditiously
as possible; not
later than 4/1/74)

NITROGEN OXIDE EMISSIONS

Fuel Burning 7.1 }
Non-Fuel Burning 7.2, 7.3 }
Equipment

Effective Date 6/1/73
of Compliance According to
Approved Plan
(as expeditiously
as possible; not
later than 4/1/74)

II. WATER QUALITY

Connecticut's rivers, lakes and coastline represent a wealth of water resources that is equalled by few other states in the nation. Pollution of the state's waterways started 200 years ago when early settlement developed along rivers and streams. These water courses provided transportation, power, irrigation, abundant clean water and a means of getting rid of industrial and domestic waste waters.

Connecticut was among the first states to recognize the need for controlling water pollution. The State Water Commission was formed in 1925. After the major floods of 1936 and 1938, a State Flood Control and Water Policy Commission was established. In 1957 this board, the State Board of Supervision of Dams and the State Water Commission were all replaced by a seven-man Water Resources Commission. In 1959 the natural resource agencies were consolidated into the Department of Agriculture and Natural Resources, the forerunner of the present Department of Environmental Protection.

The condition of Connecticut's water resources showed a positive trend for several years and has picked up substantially since 1967 with the passage of the Clean Water Act.

Prior to 1967, each issuance of an order by the Commission required a hearing. Now, without mandatory hearings, a far greater number of pollution abatement orders have been possible. Of the first 600 to 700 orders issued under this system, only about fifteen percent came back with requests for hearings. By the end of fiscal 1972 1040 orders had been issued, of which fifty-eight percent were in total compliance. Ninety-five orders were issued in fiscal 1972, an increase of sixteen percent over fiscal 1971.

Presently, a five-year water pollution control plan is under way. The objective of the program is to accomplish secondary treatment, as a minimum with chlorination, of all municipal waste water discharges and equivalent treatment of industrial waste waters, before the end of calendar year 1974. It is the feeling currently that all systems with the exception of New Haven will be completed by that time. The New Haven Facilities should be well under construction by then.

One of the products of the state's water quality management program will be the preservation and restoration of sport and commercial fishing. With an increase in the public's available leisure time has come an increase in sport and recreational fishing. This includes not only the pursuit of a variety of both fresh and salt water game fish but a growing interest in recreational shell fishing. Both clams and oysters are taken, in addition to lobsters. Commercial fishing and shell fishing are unable to satisfy market demand. Fishing is dependent upon pollution control as well as preservation of tidal wetlands. Shell fishing requires the preservation of oyster beds and clam beds and their protection from silting and dredging. It has been learned that the ocean floor does not heal or recover satisfactorily from the effects of dredging and gravel mining.

Connecticut's offshore oil potential is an issue in the making. All else considered equal, the state may wish to avoid the risks associated with offshore drilling. But, it has been suggested that New England, as a region that consumes large quantities of petroleum, should bear some of the responsibilities of production. The oil industry is no doubt accumulating expertise and experience in offshore drilling but may never completely eliminate the threat to marine life and the adjacent tidal ecology. Final decision on this matter must await the results of further studies.

Connecticut's current water pollution control plan is comprehensive and up-to-date. There are, however, some areas of pollution control that remain without adequate programs. Long Island Sound represents a significant and valuable portion of the State's water resources. Further safeguards to protect this resource are necessary. The practice of ocean dumping has been tolerated or overlooked while other possibly less serious practices have been prohibited. Correction calls for a federal or multi-state cooperative effort. Another problem of a marine nature, but one that affects fresh water rivers and lakes as well, is that of marine sewage. Because of the mobility of commercial and pleasure craft, a control program for Connecticut alone is impractical, as New York State experience has shown. Again, a federal or multi-state regional plan is needed.

III. LAND USE

The effects of air pollution are in most cases relatively short term. Correct the source of pollution and the air becomes cleaner. Water has been recycling itself since the earth first cooled, and water cleans itself as we cease to contaminate it. Land is a resource that behaves differently. Ravage it and you live with it ----- . As someone aptly put it, "land is an item that they don't make anymore." So land use is critical. Not only is much land use essentially permanent, but there will be an increasingly greater number of people everywhere to use this limited resource in the future.

The State's Plan of Conservation and Development, an inventory and master plan of its land use, provides an essential step to direct future growth. This plan has been completed and is being reviewed by the several state agencies concerned.

The Inland Wetlands Bill, Public Act 155, is one of the provisions directed toward land use in Connecticut. This bill was effective from passage, though it is necessary for individual municipalities to establish their own ordinances. If any

community does not take advantage of this provision by the end of 1973 the state will assume responsibility for regulation.

Executive Order Number Sixteen represents the state's own commitment to good environmental policies by requiring that an environmental impact statement be prepared for any public construction project deemed to have a major impact on Connecticut's natural resources.

A state wide plan for solid waste management and resource recovery is being developed jointly by the state and the General Electric Company in association with Northeast Utilities and Southern Connecticut Gas Company. Because this program, under the direction of the Department of Environmental Protection, will make possible a substantial volume of resource recovery, it will have a positive effect on the estimated 163 towns now depending upon sanitary land fill.

In the past, the lack of an overall land use plan has resulted in haphazard and costly development. Land use decision-making was left to local government. Zoning was not readily adopted in every case. Every town in Connecticut now has a zoning commission, but at the end of 1972 twenty-one towns did not have zoning ordinances. One factor which has had a profound influence on local land use priorities is the local financing of public schools. Zoning has often been used to control school costs, sometimes at great cost to the environment and to the detriment of minority groups.

Farm land is a resource that is both irreplaceable and often difficult to preserve. The state's best agricultural land lies along the Connecticut river valley. This location has also made it prime land for industry since this valley has been the center of industrial and commercial development from the time of original settlement. Fortunately, the high value of this valley land for growing

cigar tobacco has to some extent kept agriculture competitive with industry and other real estate usage.

Agriculture in Connecticut has at least a two-fold value to the state. In a growing, mainly industrial region, the existence of crop land, pasture and livestock exert a highly desirable aesthetic influence in the environment. Most people consider a rural agrarian atmosphere as a desirable place to live. Ecologically, crop land is valuable for generating oxygen and consuming carbon dioxide.

Agriculture occupies an important position in the state's economy. Connecticut produces 57% of the milk it consumes. Dairying produces cash income of \$53½ million annually. Our poultry industry produces 90% of the state's use of eggs, worth nearly \$42 million per year. Tobacco is grown on 5,600 acres, producing a crop worth \$24½ million. Connecticut grows 30% of its vegetables and almost all of its apples and potatoes. Connecticut still has 4,000 farms which generate total cash income of \$167 million. The agricultural part of the state's economy is approximately \$269 million.

Where tobacco farming has been abandoned, the state's most valuable crop per acre, an alternative for some growers has been nursery stock. This is also a high value crop and one which is obviously compatible with a growing residential population.

Connecticut's parks and forests are being more fully utilized as the public is becoming aware of the available facilities and has increased leisure time to use them. The public is also increasingly more aware of a need to leave urban surroundings, or even suburbia, and "commune with nature." State park and forest lands now total approximately 187,000 acres. A five-year (1972-1976) land acquisition program calls for the addition of 41,000 more acres. The ultimate goal for state land acquisition is 500,000 acres.

The current park and forest facilities are expected to have ten million visitations in 1973. Even with the growing awareness and popularity of these recreation resources, the state's present and anticipated land holdings are considered adequate, with proper development and management.

However, in general there is an apparent and pressing need for greater attention to utilization of land resources in the State of Connecticut if a generally acceptable level of environmental quality is to be maintained.

IV. NOISE ABATEMENT

Noise abatement is a more recent area of environmental concern and, like other kinds of pollution, is directly related to population and industrial density.

Sources of objectionably high noise levels fall into a relatively few major categories. In urban areas, vehicles contribute to 55% of total noise source, compared to 35% in rural areas. Stationery industrial sources, including such things as quarrying, also rank high in importance.

The need for a noise abatement program has been recognized by the Department of Environmental Protection and provisions for enforcement are included in Public Act 872. The Department of Motor Vehicles has conducted research and held hearings in a continuing program of noise abatement, which has included recreational vehicles as well as trucks and passenger cars. Guidelines for local implementation of noise abatement ordinances are provided by the Department of Environmental Protection. Aircraft noise regulation has been essentially preempted at the federal level.

In general, better methods of implementing noise abatement are needed, however.

SUMMARY

The Council is encouraged by the progress made in Connecticut by the Department of Environmental Protection and its predecessor organizations. Private organizations have also contributed much to the environmental movement, particularly in the area of citizen awareness and in focusing attention on problems.

We, the people, have created our pollution problems, and we can solve them. Much has been done, but much remains to be done.

Environmental action cannot be a temporary movement. Promising steps have been made. We must now dedicate ourselves to maintenance of a permanent and vigilant attitude of environmental scrutiny. This must be a reasoned and analytical approach, for we have suffered from fanatics and fadists who have sought attention by dramatic exposes and in turn generated emotional pollution which can only be damaging to the long-term effort.

Continued support in manpower and financial resources at the state level is necessary if we are to meet and solve our environmental problems. We believe that our society is ready to pay the cost and that the technology will be produced to do the job. But, a steady and reasoned course is necessary and instantaneous solutions should not be expected.