

# MAINE STATE LEGISLATURE

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REPORT OF THE SUBCOMMITTEE ON  
ENVIRONMENTAL HEALTH  
PURSUANT TO STUDY ORDER HP 1990 OF THE  
109th MAINE LEGISLATURE

JANUARY, 1981

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STATE OF MAINE

ONE HUNDRED AND NINTH LEGISLATURE

COMMITTEE ON HEALTH AND INSTITUTIONAL SERVICES

January 26, 1981

Rep. Elizabeth H. Mitchell, Chair  
Legislative Council  
110th Legislature  
State House  
Augusta, Maine 04333

Dear Rep. Mitchell:

On behalf of the Subcommittee on Environmental Health and pursuant to H. P. 1990, directing the Joint Standing Committee on Health and Institutional Services to study the feasibility of establishing an environmental health program within the existing resources of State Government, I am pleased to submit our final report and the accompanying legislation.

Sincerely,

A handwritten signature in cursive script that reads 'David H. Brenerman'.

Rep. David H. Brenerman  
Subcommittee Chairman

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## I     Recommendations

1. An environmental health program should be established within Maine. Since such a program could encompass many areas, and be expensive, it seems advisable to start with a small range of activities, carefully coordinated and evaluated.

The functions of the program should include:

- a) emergency response;
- b) monitoring and data gathering;
- c) evaluating connections between environmental factors and potential health problems; and
- d) referral of technical information for the public, and government agencies.

2. The Bureau of Health should build on their existing capabilities.

- a) The Bureau should evaluate and improve their data collection and management. It is particularly important that they make full use of the potential inherent in the tumor registry (already in state statute), registries for birth defects and information collected on death certificates.
- b) The different statistical staffs of the Department, within the Division of Vital Records and the Bureau of Health Planning and Development, should be better coordinated; some consideration should be given to their merger.

3. The Department of Human Services should also set up a small environmental health program to perform those functions which are usually within the accepted government role of protecting the public health. To do this, they should hire 3

professionals: an epidemiologist, a toxicologist and a research assistant, with clerical support, to perform the functions noted in Recommendation 1 above. The new staff will also need to evaluate possible expanded roles for existing resources within the Department, such as the Public Health Nurses in the Bureau of Health.

4. The non-governmental community can and should play a role in an environmental health program; frequently they have access to equipment and funds, and perform specialized functions which it would be expensive (as well as unnecessary) to duplicate. They can serve as a resource for the state to use, and as a basis for policy decisions which must be made by State health officials.

a) An Environmental Health Advisory Committee should be established, including members of the lay public and the environmental scientific community, as well as physicians. They should receive compensation for expenses in connection with their attendance at meetings or other committee functions. Their chief duty would be to give advice to the Commissioner or his designee and to the environmental health program.

b) A resource inventory of persons and institutions with expertise in environmental health and ancillary disciplines should be developed by the Bureau of Health.

c) It will then be possible to identify and use non-governmental groups to:

- (1) carry out specific contracts from the state,
- (2) continue their own research in environmental areas, sharing that information which is identified as in the public interest;

- (3) serve as a referral source for information in specialized areas, such as toxicological agents; and
- (4) provide interns to assist in state projects.

5. All of the activities in this comprehensive environmental health program should be publicized for the benefit of the public. The Department of Human Services, through their outreach services, should make people aware of the activities of the program. In addition, there should be a special section on the environmental health program in the Commissioner's annual report to the Legislature, and the Commissioner should make a special annual report on environmental health to the Health and Institutional Services Committee.

## II Introduction; Composition and Activities of the Subcommittee

### A. Legislative history

During the 1st Session of the 109th Legislature, a bill was introduced (LD 1090) to create the position of an Environmental Doctor within the Department of Environmental Protection; this bill failed to be enacted. Another bill, to create an Environmental Health Unit (LD 1834), was submitted during the 2nd session and also failed. The basis for submission of these bills was the concern of state officials to have available expert advice and research capabilities which would assist various state departments in protecting the public health against environmental pollutants, while also allowing for more informed decisions in areas such as regulating pesticides for use by farmers.

In both cases, the defeat of the bills was attributed to concern about creating additional state positions, their possible regulatory functions, and the costs of the programs. In addition, some people doubted the need for an environmental physician or program, noting that such a program would not be able to prevent environmental disasters, and often might not be able to offer definitive comments which would provide the basis for action or a policy decision by State Government.

One response to the failure of the Environmental Doctor bill was a resolve (LD 1627), which required the Commissioner of Human Services to conduct a study of the current state government programs and capabilities in the area of environmental health, a comparison of those in other states, and to propose a five year plan for state action in this area. The results of this study were reported to the State Government Committee in January, 1980.

The information presented in the study did not convince a sufficient number of legislators to support LD 1834, the bill creating an Environmental Health Unit. However, legislation was passed to provide for environmental health monitoring of the spruce budworm spray program, funded through the revenue from a tax increase of one penny per acre. This tax provided approximately \$50,000, which the Department of Conservation, in a memorandum of understanding, committed to the Department of Human Services to establish a chronic disease monitoring program in the sprayed and adjoining areas. DHS contracted with the Poison Control Center at Maine Medical Center for part of this program: a literature search and analysis and medical consultation with hospital personnel and others in the spray area.

Finally, a study order was passed (HP 1990) which required a subcommittee of the Health and Institutional Services Committee to investigate whether an environmental health program could be established within the existing resources of state government.

#### B. Composition and activities of the Subcommittee

By the early summer of 1980, the Legislative Council had met and approved the study order, and members of the Subcommittee as nominated by the Chairman of the Health and Institutional Services Committee, Senator Barbara A. Gill (R-Cumberland) and Representative Sandra K. Prescott (D-Hampden). The members were Senator Walter W. Hichens (R-York), Senator Michael E. Carpenter (D-Aroostook), Representative David H. Brenerman (D-Portland), Representative John M. Norris (D-Brewer), and Representative Mary H. MacBride (R-Presque Isle). The council provided \$375 for expenses connected with the subcommittee's meetings, and later

gave permission for and approved additional funds for meetings outside Augusta.

The Subcommittee held its first meeting in Augusta on July 18th, accepting Rep. David Brenerman as chair, and had subsequent Augusta meetings on August 28th and December 1st. These meetings were open to the public, and included testimony from state officials, as well as interested organizations and individuals, such as representatives from Maine Medical Center, the Foundation for Blood Research, the Poison Control Center, the University of Southern Maine's Center for Research and Advanced Study, Maine Blue Cross and Blue Shield, Maine Audubon Society, Natural Resources Council of Maine, Maine Health Systems Agency, Maine Lung Association, Associated Industries of Maine, the Paper Industry Information Office, and the Health Education Resource Center of the University of Maine at Farmington.

In addition to the Augusta meetings, members and staff held conferences at the Foundation for Blood Research in Scarborough with Dr. Nicholas Wald, a visiting British epidemiologist, in Orono with Dr. Paul Silverman, President, and Dr. Brad Hall, Vice-President for Research of the University of Maine, and toured the Poison Control Center in Portland.

The staff prepared material for meetings of the Subcommittee, including information on programs in states not studied by the Department of Human Services, and contacted numerous persons within the state.

### III Findings

The Subcommittee, through testimony, conversations and reading, learned about the areas of environmental health and epidemiology.

Environmental health considerations involve medical judgment of the possible health impact of various factors in the environment. The environment includes air, water, soil or natural or manufactured products to which people are exposed at the work site and in general surroundings.

The impact may be acute, or chronic; it may involve the affected persons directly, if the impact is carcinogenic, or it may involve their offspring, if the impact is teratogenic (affecting fetal development) or mutagenic (changing the gene structure). The toxicity of a product is its ability to produce any of these adverse effects.

Assessing the impact of substances is complicated. The process usually involves human tests, animal tests and tissue culture tests.

Tissue culture tests involve growing certain strains of actual human (or other animal to be studied) cells to observe pathogenesis that may be related to exposure to the tested substance. Animal tests expose laboratory animals (rats, mice, guinea pigs, rabbits, etc.) to differing doses of suspected carcinogens by introducing the substance in a variety of ways (ingestion, inhalation, injection, etc.). Studies made of people who have been exposed are called epidemiological tests.

Epidemiological studies center on groups of people with something in common -- such as exposure to a suspected health hazard. As Dr. Donna Thompson, a cancer researcher, notes, since epidemiological studies often involve following that group for a period of time, either prospectively or retrospectively, the mobility of today's population makes epidemiological studies rather difficult. Another disadvantage is that unless

a rather significant effect has occurred, it is hard to identify a factor to examine. This aspect of epidemiology forces us to pounce on the misfortune of some people in order to shed any light on preventive measures for others. The third major obstacle with epidemiological data lies in attempting to sort out the causes and effects to be studied from any "background noise." That is, a problem must first be defined that is peculiar to a specific subset of the population -- is the incidence of cancer of the liver in fact higher among vinyl chloride workers than among executives of a vinyl chloride plant? If so, what are the factors that are responsible for the increased incidence?

If a particular substance is determined to be toxic, the question arises as to whether the toxicity occurs only above a certain exposure level, or whether there is always some impact, with the higher dose producing a greater impact.

In these studies, professionals such as epidemiologists, biologists, chemists, toxicologists and statisticians are used. An epidemiologist may have an advanced degree in a field such as public health, or be a physician; in either case, he may be termed a "health detective." A toxicologist studies the effect of chemicals on living organisms. A biostatistician is a statistician with special training in biology.

All of these kinds of professionals are needed to determine the current health status of a population group, to analyze suspected pollutants or toxic substances, to evaluate the health impact, to make suggestions as to a course of action.

The general impression of the Subcommittee was that although there were people in various departments who had information and experience in areas involving environmental health, and although these people had valuable contacts with people in and out of state government, the network for gathering, analyzing and coordinating the information necessary as the basis for a decision was insufficiently formalized.

#### State Agencies

The Subcommittee learned of the responsibilities of different agencies within the Departments of Conservation, Environmental Protection, Agriculture, Food and Rural Resources and Human Services. In their testimony, representatives from these departments referred to the informal liaison among the departments, which includes exchange of information as well as provision of services.

However, there was agreement that in some recent problem areas, such as the TRIS spill in the Piscataqua River, there is no information available in Maine, and outside assistance must be sought. In the case of the contaminated well water in Gray, the Department of Environmental Protection received assistance from the Department of Human Services' laboratory, but both departments had to take time away from regular activities to devote their attention to that problem.

The Agriculture, Food and Rural Resources Department registers pesticides, but has no staff capability for evaluating possible health-related consequences of their use. They invited several physicians to form an ad hoc Medical Advisory Committee, which evaluated some commonly used pesticides, and on the basis of their recommendations, the Department is holding public hearings in 1980-81 to review possible discontinuance or limitations on their use.

The Department of Conservation has contracted with the Department of Human Services for the design of a monitoring program for the spruce budworm spray program. Conservation also noted the lack of sufficient medical or health information on the efforts of spray on crops and human beings. In light of the complaints from the Dennysville area, about possible crop damage and health hazards from spray which had drifted beyond the application zone, the Department of Conservation hopes to answer some questions by the review of the literature and testing undertaken through the monitoring program.

The Department of Human Services has a state epidemiologist position in the Bureau of Health, the Public Health Laboratory in the Division of Health Engineering, and various data-gathering and statistical analysis personnel, especially in the Division of Research and Vital Records. Last spring the State Epidemiologist, an Epidemiological Intelligence Service Officer on loan for training purposes from the Center for Disease Control (CDC) in Atlanta, left, and the CDC did not refill the position. They felt there was an insufficient training program within the Department.

The Bureau of Health Engineering in DHS has several technicians working on regularly scheduled assignments, such as the testing of drinking water supplies. They generally operate on dedicated revenues, such as fees for testing, and have no surplus staff which would permit them to undertake long range studies for chronic exposure. They also need medically trained staff to evaluate the information they provide; e.g., having found radon in someone's water, what should DHS advise the people to do?

Although DEP has a Bureau of Water Quality Control, their

duties relate to environmental, rather than specifically public health issues. They were involved in the TRIS spill, and the Gray well water contamination, and in both cases could provide technical analysis, but no health recommendations. In addition, attention to these problems diverted personnel and financial resources from other regular duties.

As for use of outside resources, while acknowledging use of contracts and information within the University of Maine system, Department of Human Services spokespeople noted the difficulties of coordinating necessary, scheduled work with the irregular contributions of volunteers. The Department also referred to problems of comparability of data collected for various purposes, as well as the lack of baseline data in some areas.

#### Non-governmental Agencies

The subcommittee also learned of the research efforts of private and state institutions, and information sources within the State. In some cases, groups were not aware of the existence of others and their programs; in other cases, such as the proposed consortium in southern Maine (Maine Medical Center, Poison Control Center, Foundation for Blood Research, University of Southern Maine's Center for Research and Advanced Study), there is active cooperation.

Undoubtedly use should be made of individuals in the state with training and experience in scientific, technical and medical fields. However, it will be difficult to do this on a strictly voluntary participation basis. But efforts should be made to develop an inventory of these individuals at the state's colleges and universities; the private industrial sector should

also be contacted. For example, the new President of the University of Maine at Orono, Dr. Paul Silverman, is an epidemiologist by training; the medical school and undergraduate programs at the University of New England (formerly St. Francis' College) include toxicology and epidemiological medicine.

The state has also used non-governmental groups for assistance in dealing with environmental programs. For example, a group of physicians (including an oncologist and a geneticist) prepared a literature review for the Department of Agriculture, Food and Rural Resources of twelve pesticides registered for use in Maine, assessing their health views, and made the suggestion that 3 pesticides not be approved for aerial dispersion. These recommendations were followed by hearings of the Board of Pesticides Control on the 3 pesticides. In addition, there is now a medical member on the Board.

The Maine Poison Control Center, located in the Emergency Department of the Maine Medical Center, includes 6 full time technicians, a supervisor and a medical director. Through toll-free telephone lines, the Center responds to inquiries, with information from articles and books in the library, and through a computerized search facility on chemicals and reactions to them in scientific and medical literature.

The Maine Medical Center's research department has been performing various biomedical research, including kidney and heart diseases, and red tide, and has highly specialized equipment available, including pathology, pulmonary function and radio-immunoassay laboratories.

Other research groups in the Portland area are the Foundation for Blood Research, which specializes in prenatal screening for alpha-fetal protein, human genetics and various outreach educational programs, and the Biomedical Research Institute of USM, which has physiology, histology and biochemistry labs, and is studying blood proteins and delivery of health services.

There are also other research labs in the state with varying specializations, such as Jackson Labs (genetics), Togus (tissue culture), and Bigelow (marine research) in addition to those at the various public and private educational institutions.

The Maine Medical Association has established an Environmental Health Committee, and within particular industries and unions there is strong interest and investigation into work-place hazards which may affect a larger population.

One point which became evident was the multiplicity of efforts, each often operating in a rather small area, and the lack of sufficient knowledge, still less cooperation, among them. But since much of environmental health work involves the detection and observation of seemingly unrelated items, it is important to have one individual or group which is able to pull things together.

Having noted the breadth of the area of environmental health, the Subcommittee also recognized that an information coordinator might not be the same person who would be doing long-term research, or who would be in a position to review acute problems or to respond to emergencies.

## Technical Information

As far as technical sources of information are considered, the Subcommittee learned of numerous services, many of which are already used by state agencies.

CHEMTREC ( Chemical Transportation Emergency Center), a private sector service of the Chemical Manufacturers Association in Washington, provides assistance to persons involved in or responding to chemical or hazardous material emergencies, with those involved in transportation as a priority. CHEMTREC has a toll free number, and works closely with the Federal Department of Transportation and the U.S. Coast Guard.

The Maine Poison Control Center, located in Maine Medical Center in Portland, has a toll-free number to provide information to private, commercial and industrial users.

There are also files of varying range available through other state departments, such as Environmental Protection and Agriculture, other federal agencies including the Nuclear Regulatory Commission and reference services of the Library of Congress, and private groups such as the Natural Resources Council of Maine, Maine Audubon Society, Maine Organic Farmers and Gardeners' Association, and other trade and interested groups.

CHEMTREC and the Poison Control Center, however, are the only services which provide immediate response.

The Center for Disease Control maintains research facilities, sends EIS officers to states, and has under it the National Institute for Occupational Safety and Health, which provides research and technical assistance to states.

There is a library within the Maine Department of Human Services, which includes books and journals in numerous health fields, as well as a reference collection.

The Maine State Library has access to numerous technical sources of information through "Talimaine," a computerized system which can send requests and receive printouts of articles on the requested topic. The citations may be only to titles, or may be summaries. Journals not available in Maine can be borrowed through the Inter-Library Loan System. The service is free to private individuals, but there is a charge to state agencies, for machine time and each citation. Obviously, some topics would require more search time, others more print time.

A similar search service is available from various hospitals in Maine, which are tied in to the MEDLARS system of the National Library of Medicine, part of the Federal Department of Health and Human Services. The data bases available on MEDLARS include journal articles and abstracts in the field of health sciences; they include Toxline (human and animal toxicity studies), Chemline (names for chemical substances), RTECS (toxicity data for chemical substances), Toxicology Data Bank (toxicological, pharmacological and chemical data on various substances). The primary service is to users within the hospitals, but individuals may also request searches. There is a charge for each search, which may include a copy of any article if they are available at the hospital.

## Research

Research is being done at the Federal level in such organizations as the National Institute of Occupational Safety and Health, National Cancer Institute, which publishes an atlas of cancer incidence, and the National Institutes of Medicine.

All of the sources can be tapped to broaden Maine's data sources and bases for decisions.

## Data Gathering

An important area in which the State appears to need assistance is that of data gathering. Two divisions within DHS, Vital Records and Data and Research, have available information on births, deaths and various health services. Neither has a biostatistician specifically working on incidences of certain diseases.

The birth information is sketchy, and should be expanded. One valuable use of birth registries, often recommended as a faster way than retrospective studies on cancer incidence, is to show the development of health problems in a particular area. Such a birth defect registry is not currently in use.

The state's death records may also be unreliable for disease incidence purposes. For example, death certificates allow for the listing of primary, secondary and tertiary causes of death; some physicians never fill out more than the primary cause, and there is often confusion as to which is the primary cause, and which a contributing cause; for example, in the case of someone with emphysema who dies of a heart attack. In addition, misleading information about the person's occupation does not help trace occupational disease, or for example, recording that a per-

son is "retired" or referring only to a secondary career, begun in mid-life when a person moved to Maine.

The state at one time maintained a statewide cancer tumor registry, and there are still statutory requirements for hospitals and physicians to report tumor incidences to DHS (22 MRSA §1402). Hospitals now maintain their own records, probably in different formats, and there is the possibility of double counting if people go to more than one hospital at different stages of treatment, or for a new incidence of disease. Cancer incidences, however, may not show up for many years after exposure.

#### Specific Proposals

Through learning of these problems and possible resources to address them, the Subcommittee was better prepared to evaluate proposals received from the Southern Maine Area Consortium and DHS for the establishment of an environmental health program.

#### DHS Proposal

The DHS proposal, in the form of legislation to be included in the Governor's package, retained the responsibilities of monitoring the health status of state inhabitants, identifying the prevalence and distribution of health problems, investigating suspected relationships between problems and environmental factors, and giving advice to DHS and other state agencies and boards on the potential health implications of their actions. The proposed bill retained the 9 member Medical Advisory Committee.

The total cost for staff (an epidemiologist, toxicologist, research assistant and secretary), salaries and benefits, program costs (including private contracts) and capital equipment was \$100,930 for fiscal year 1982, and \$117,225 for fiscal year 1983. (The positions would not be filled until October 1981.) In fiscal year 1983, there would be standard salary increases, but no capital costs.

The rationale is to keep all these programs within DHS in order to link with other existing departmental programs, especially those in the Bureau of Health and the Division of Research and Vital Records. Since the department's charge is to protect the health of the people of Maine, the duties involved in that responsibility should be within the department's control.

The Department added to its proposal at the last Subcommittee meeting, by noting that the new head of the Bureau of Health is a physician, a former EIS officer, with training and experience in epidemiology, and that he hopes to hire an epidemiologist as the head of the division of disease control. In addition, a non-physician epidemiologist will be hired with expertise in chronic disease studies. The filling of these positions will further strengthen the department's capacity in the area of environmental health, and provide a professional nucleus within state government.

#### Southern Maine Area Consortium Proposal

The proposal made by the informal consortium of Portland - area groups had many similarities to the DHS one, and assumed a first year cost, with 4 additional state employees, of \$75,000 to \$100,000.

Specifically, this proposal favored increasing staff for improved data collection and analysis within the department, as well as coordination with hospitals and other agencies for information necessary for epidemiological studies. The advisory committee was a "medical-scientific" one, as befit their concern that epidemiological studies should be commissioned by DHS and other state agencies from academic, research and health care institutions, individually or collectively.

The proposal emphasized the need for continuing contact between a state epidemiologist and the medical-scientific community, and warned of the burden of administrative responsibilities, which to some degree could be lessened by having an assistant to the Deputy Commissioner for Health and Medical Services, responsible for coordinating DHS' environmental health activities, serving as liaison with other departments, administering contracts and staffing the Medical Scientific Advisory Committee.

The Poison Control Center was specifically cited as the coordinator of information and advice on environmental hazards.

The proposal also recommended investigation of the possibilities of coordinating research and consultative programs on a regional basis, and preparing environmental health education programs.

#### Conclusion

The Subcommittee concluded its work by agreeing to make recommendations for administrative changes within the Department of Human Services, and to sponsor legislation creating an environmental health program within the Department, with appropriate assistance

from the non-governmental community. The legislative and administrative recommendations reflect the Subcommittee's combination of ideas from both the Department of Human Services' and the Southern Maine Consortium's proposals, as well as other information gathered through this study.

After listening to comments from the private sector and state government, the Subcommittee agreed that an environmental health program should be established within state government. The location within the Department of Human Services was selected because the Department has the responsibility for protecting the public's health, needs to have information immediately available, and already has the nucleus of an environmental health program which could be increased as the needs require and funds permit. In addition, the State needs to make long-range plans, and to be able to integrate information from various departments, including those such as Environmental Protection, Agriculture, Food & Rural Resources, and Conservation, which supported a state program. The liaison among various departments should be established in one place, and the Bureau of Health seemed a convenient and logical one, already recognized and used.

There are also areas in which individuals and groups outside state government can provide assistance quickly and efficiently, because they have already made investments in equipment and staff. In many cases, it would be economical, as well as providing greater flexibility to State personnel, to contract certain tasks to these individuals and groups.

Ultimately, the State bears both a responsibility for the

health of its citizens, and the fiscal burden of their disease.  
It is appropriate that it should utilize an environmental health  
program.

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AN ACT to Create an Environmental Health Program.

Emergency preamble. Whereas, Acts of the Legislature do not become effective until 90 days after adjournment unless enacted as emergencies; and

Whereas, the past decade has been marked by an increasing awareness of potential threats to the public's health by contaminants in the environment; and

Whereas, detection of these contaminants and treatment of their effects requires expertise in many fields; and

Whereas, Maine has higher than average rates of certain environmentally-related diseases, including lung disease and cancer, the reasons for which require investigation; and

Whereas, it is clear that the State has a limited and fragmented capability to address these environmental health issues; and

Whereas, there is a need to create an environmental health program to detect and evaluate environmental factors known or suspected to be injurious to our health; and

Whereas, the Department of Human Services has a broad mandate to protect the public health; and

Whereas, the federal Center for Disease Control has indicated that the existence of such a program would result in additional assistance in this field; and

Whereas, in the judgment of the Legislature, these facts create an emergency within the meaning of the Constitution of Maine and require the following legislation as immediately necessary for the preservation of the public peace, health and safety; now, therefore,

Be it enacted by the People of the State of Maine, as follows:

22 MRSA c. 269 is enacted to read:

#### CHAPTER 269

#### ENVIRONMENTAL HEALTH PROGRAM

##### §1661. Findings and declaration of purpose

The Legislature finds that adequate measures must be taken to insure that any threats to the health of the people of the State posed by natural phenomena or the introduction of potentially toxic substances into the environment are identified, appropriately considered and responded to by those responsible for protecting the public's health and environment.

The purpose of this chapter is to create an environmental health program within the Department of Human Services, Bureau of Health, which would provide the department with the capability it requires to discharge its responsibilities satisfactorily, and to advise other departments and boards charged with similar or related responsibilities regarding the potential health implications of their actions.

##### §1662. Environmental health program

The department shall create an environmental health program within the Division of Disease Control of the Bureau of Health, Department of Human Services. This program shall be staffed by individuals with training and experience in environmental medicine, epidemiology, toxicology, statistics and related fields.

The environmental health program shall:

1. Develop and monitor health status. Develop indicators of health problems in the State, monitor the health status of the people of the State, and establish and maintain the necessary

data banks for broad surveillance of human health and disease in Maine.

2. Identify health problems. Identify significant health problems in the State, including those which may be related to environmental factors;

3. Investigate. Conduct and contract for investigations as necessary to determine whether particular problems are related to environmental factors;

4. Advise state agencies. Advise the Commissioner of Human Services, as well as other state agencies and boards, such as the Departments of Environmental Protection, and Agriculture, Food and Rural Resources, regarding the potential health implications of their actions, the nature and extent of identified problems and the steps which can be taken to address them; and

5. Public information. Provide the public with information, and advise them as to preventive and corrective actions in the area of environmental health.

#### §1663. Environmental Health Advisory Committee

The commissioner shall appoint a committee of representatives of the public and private sectors to serve as an advisory body to the environmental health program. The committee shall advise, assist and consult with the commissioner regarding the public health implications of hazardous elements in the environment. Furthermore, the committee may make recommendations to the commissioner, concerning the steps which should be taken to make for a healthful environment. The committee shall be solely

advisory in nature. It shall be composed of not less than 11 members, of whom 3 shall be public members. The members shall serve for 3-year terms, except that initially 4 shall be appointed for 3 years, 4 for 2 years, and 3 for 1 year. The members shall include individuals with training and experience in any of the following, or related fields: environmental medicine, epidemiology, toxicology, human genetics, biomedical research. The commissioner shall appoint the chairman of the committee. Members of the committee shall serve without pay, but be recompensed for expenses incurred in carrying out their duties. The committee shall meet at least once annually in Augusta.

§1664.. Contracts with educational, research and eleemosynary institutions

The environmental health program shall, to the maximum extent feasible, and within the amounts appropriated for such purposes, contract with educational, research and eleemosynary institutions within the state for research and investigation activities which can be carried out more economically, expeditiously or conveniently by those non-state institutions.

§1665. Acceptance of funds

The department is authorized to accept any public or private funds which may be available for carrying out the purposes of this chapter.

Sec. 2. The funds appropriated for personal services under this program in the biennium shall be expended for 2 professional positions and 1 clerical position in 1981-82, and an additional professional position in 1982-83.

#### STATEMENT OF FACT

The bill creates an environmental health program within the

Bureau of Health of the Department of Human Services.

In the first year, the staff will be a non-physician epidemiologist, a toxicologist and a clerical worker; in the second year, a research assistant will be added. The responsibilities will include: monitoring of the health of the people of Maine; identifying and investigating health problems which may be related to environmental factors through state or contracted research; providing advice and information to the Commissioner of Human Services, and other state departments and boards; providing information and advice to the public on environmental health.

The bill also creates an advisory committee representing medical, scientific and lay members from the public and private sectors.

The funds for this program are contained in the Governor's Part II budget: \$100,930 in 1981-82, and \$117,225 in 1982-83. The actual expenditures are expected to be less due to the limitations expressed in Sec. 2 of the bill.

## ORDERS

(4-1) On Motion of Mr. DAVIS of Monmouth, the following Joint Order (H. P. 1990) (Co-sponsors: Mrs. MacBRIDE of Presque Isle, Mr. HICKEY of Augusta and Mr. KELLEHER of Bangor)

WHEREAS, chapter 18 of the Resolves of 1979 directed the Commissioner of Human Services to conduct a study of environmental health in Maine; and

WHEREAS, this study resulted in recommendations by the commissioner for implementing and conducting an environmental health program for the State, which were included in Legislative Document No. 1834; and

WHEREAS, L. D. 1834 proposed to create a program within the Department of Human Services, Bureau of Health, which would require additional staffing for implementation; and

WHEREAS, such a program may be possible without the need of additional staffing, if the various agencies responsible for environmental quality and protection are the subject of a legislative study to determine the feasibility of an environmental health program within existing resources; now, therefore, be it

ORDERED, the Senate concurring, subject to the Legislative Council's review and determinations hereinafter provided, that the Joint Standing Committee on Health and Institutional Services shall study the feasibility of establishing an environmental health program within the existing resources of State Government, which program could include:

A. Coordinating available resources. Establishing contact with people in other state agencies and on public and private boards who have training and experience in the public health field, particularly in environmental medicine, occupational medicine, epidemiology, toxicology and statistics, in order to develop information about current state efforts in this area;

B. Monitoring health status. Monitoring the health status of the people of the State;

C. Identifying health problems. Identifying the prevalence and distribution of health problems, including those which may be related to environmental factors, and

D. Advice to state agencies. Advising the Commissioner of Human Services, as well as other relevant state agencies and boards, regarding the potential health implications of their actions, the nature and extent of identified problems and the steps which can be taken to address them; and be it further

ORDERED, that the committee report its findings and recommendations, together with all necessary implementing legislation in accordance with the Joint Rules, to the Legislative Council for submission in final form at the First Regular Session of the 110th Legislature; and be it further

ORDERED, that the Legislative Council, before implementing this study and determining an appropriate level of funding, shall first ensure that this directive can be accomplished within the limits of available resources, that it is combined with other initiatives similar in scope to avoid duplication and that its purpose is within the best interests of the State; and be it further

ORDERED, upon passage in concurrence, that a suitable copy of this Order shall be forwarded to members of the committee.



MAINE MEDICAL CENTER • PORTLAND, MAINE 04102

November 13, 1980

## A PROPOSAL TO STRENGTHEN MAINE'S ENVIRONMENTAL HEALTH PROGRAM

Submitted on behalf of Maine physicians and  
scientists concerned with cost-effective  
protection of public health.

### INTRODUCTION

There is a strong and rising public apprehension over potentially harmful effects on Maine citizens from the distribution, storage, use and disposal of toxic materials and waste. Some of those effects are acute and obvious. Others are sub-acute but may lead to acute or chronic illness or genetic disorders. These conditions result from either long-term, low-level exposures or substantial exposures on one or several occasions. Concern among physicians and scientists as well as the general public is heightened by the uncertainties over the effects of complex chemicals and radioactive materials on human health considering the ubiquitous distribution and use of those substances.

It is urgent that public resources be organized to address the uncertainties, to provide accurate and scientifically sound information and to adopt policies designed to protect the public against exposure to toxic substances. The sources of scientific and medical information on those

substances and their effects should be of high quality, objective and independent. The mechanisms for obtaining and applying such information and advice should be cost-effective. However, the state does not have unlimited resources to allocate for this purpose. We therefore advocate a program to study and prevent the effect of toxic substances on human health which takes advantage of existing resources and promotes coordination of intra-state, regional and national efforts.

An effective environmental health program in Maine will require:

(1) clear assignment of responsibility for public policy decisions and regulatory actions to the Department of Human Services; (2) strengthened data management capacity in the Department of Human Services; (3) a mechanism for obtaining scientific and medical research and consultative services from experts in academic, research and clinical institutions; (4) an effective system for obtaining high quality and objective advice on immediate and long-term scientific and medical issues related to environmental health; and (5) improved coordination of regulatory and public safety activities related to environmental contamination. The program will also require considerable professional and public education.

Although our proposal differs in detail from that offered by the Department of Human Services, it is designed to achieve the same objectives.

On January 15, 1980, Commissioner of Human Services Michael R. Petit proposed to the Maine State Legislature that "an environmental health unit should be established within the Department of Human Services' Bureau of Health to provide the Department with the capacity to detect, evaluate and effectively respond to environmental health problems and assist other

State agencies such as the Department of Environmental Protection and the Department of Agriculture in determining the implications of their respective actions . . . ." The Commissioner also proposed to create a medical advisory committee on environmental health and to contract with public and private agencies for specific services. That proposal was designed to support an environmental health program that the Commissioner described as follows:

"For the purposes of this report an environmental health program can be defined as an organized effort to detect, evaluate and control environmental factors which are known or suspected to be injurious to our health. Such an effort can be divided into three types of activities:

- "(1) activities carried out for the purpose of  
monitoring the incidence of certain health  
problems such as birth defects, pulmonary  
disorders and cancer which are believed to  
be related to environmental factors;
- "(2) activities carried out for the purpose of  
evaluating hypothesized associations between  
specific environmental factors and health  
problems; and
- "(3) activities carried out in response to the acute  
contamination of the air, water or land by toxic  
substances."

The Commissioner proposed to employ within the environmental health unit a physician epidemiologist, a physician toxicologist, a biostatistician, a research associate and necessary administrative and clerical personnel. The estimated annual personnel (6) costs were \$137,000. Capital costs of \$7,000 were calculated. Other expenses, including contracts, totaled \$57,000. Total annual expenses were estimated at \$201,000.

Our proposal limits state expenditures and staff expansion and stresses cooperation between experts in academic, research and health care institutions and the Department of Human Services. We believe our proposal costs less than half that proposed by the Commissioner and would be more effective.

In brief, we recommend: (1) creating a Medical-Scientific Advisory Committee to advise the Commissioner on environmentally related epidemiological studies and environmental health research and to assist with consulting and advisory services on environmental health policy issues; (2) providing the Deputy Commissioner for Health and Medical Services with an assistant for environmental health; (3) strengthening the Department's data management capabilities; (4) using the Poison Control Center to collect, interpret and transmit information and to coordinate advisory services on environmental hazards; and (5) using academic, research and medical institutions for environmental health research.

ANALYSIS

We agree in general with the list of activities provided by the Commissioner and have the following observations with respect to them:

- (1) "activities carried out for the purpose of  
monitoring the incidence of certain health  
problems such as birth defects, pulmonary  
disorders and cancer which are believed to  
be related to environmental factors"

(a) As noted in the Commissioner's proposal, hospital discharge abstracts, tumor registries and other sources can provide needed information for epidemiological studies related to environmental health. Hospitals and other agencies, including the Maine Health Information Center, have an active interest in improving and coordinating those data sources.

(b) Some provisions should be made in the Department of Human Services, either in the Bureau of Health Planning and Development or the Division of Research and Vital Statistics, to enhance the capacity for collecting, storing and retrieving those additional or enhanced health statistics related to environmental concerns.

(c) A Medical-Scientific Advisory Committee to the Commissioner, with membership including epidemiologists and other appropriate specialists, would provide leadership and direction in monitoring those data and in planning areas for epidemiological studies.

(d) The Department and other state agencies could encourage and commission epidemiological studies in academic, research and health care institutions or a consortium of such institutions.

(e) No single epidemiologist could provide the expertise for the variety of health problems related to environmental hazards and an epidemiologist saddled with the administrative responsibilities of supervising an environmental health unit is unlikely to maintain his or her skills or have much opportunity for intellectual stimulation from peers.

(2) "activities carried out for the purpose of  
evaluating hypothesized associations  
between specific environmental factors  
and health problems."

(a) Both research and literature searches are necessary to analyze the relationship between the environment and health problems. Both functions are most appropriately carried out by academic and medical institutions with existing resources for clinical, laboratory and library research.

(b) The Department of Human Services, working with the proposed Medical-Scientific Advisory Committee, can identify those resources both within the State of Maine and outside the state which can support the research and evaluation activities. A partial list of the potential resources is attached to this proposal. (ATTACHMENT A)

(c) A modest set of retainer contracts could provide ongoing evaluation services in addition to those offered by the Medical-Scientific Advisory

Committee. Research projects should be funded by grants or contracts from a variety of sources.

- (3) "activities carried out in response to the acute contamination of the air, water or land by toxic substances."

(a) "Acute contamination of the air, water or land by toxic substances" may result in low-level exposures over long periods of time or substantial exposures for short periods. Long-term low-level exposures and substantial doses can, in some cases, result in sub-acute physical or genetic damage. Substantial doses can cause acute illness and injury. Both acute and sub-acute effects are of concern, whatever the nature of the exposure.

(b) The State of Maine has an established resource for dealing with quick informational responses and advice on acute contamination incidents: The Poison Control Center.

(c) The Department of Human Services should continue to use the Poison Control Center under contract to coordinate collection of information and advice on contamination incidents and long-term exposure problems. Using panels of experts and available library and laboratory resources, the Poison Control Center can obtain information on identification of toxic substances and can provide diagnostic and treatment advice with respect to potential effects from exposure to those substances.

## CONCLUSION AND RECOMMENDATIONS

We believe the State of Maine has an opportunity to develop a collaborative effort between the Department of Human Services and physicians and scientists concerned with the protection of public health. The approach we are recommending would insure the state of sound, objective and expert advice on which to base policy decisions. It would allow the formulation of a flexible system that uses existing resources wherever possible. It would also take advantage of multi-disciplinary teams of scientists and physicians that can be far more productive than medical administrators who are overloaded with management details and multiple pressures.

Therefore, we recommend that the Legislature authorize the Department of Human Services to:

- (1) appoint a Medical-Scientific Advisory Committee to the Commissioner to provide expert advice on environmental health issues, including epidemiological studies, research on environmental health hazards and public policy questions;

- (2) employ an assistant to the Deputy Commissioner for Health and Medical Services who would be responsible for coordinating the activities of the Department related to environmental health, serving as liaison with other departments on environmental health matters, administering contracts and grants with other public and private agencies and serving as staff to the Medical-Scientific Advisory Committee on Environmental Health;

(3) employ necessary staff to strengthen the data management capacities of the Department and enter into planning discussions with health care agencies on the development of pertinent environmental health statistics;

(4) use the Poison Control Center to coordinate collection of information and advice on environmental hazards and enter into contracts with - and make grants to appropriate public and private medical, academic and scientific institutions for research and consultative services related to environmental health;

(5) work with other state agencies to improve and coordinate existing regulatory and public safety programs related to environmental health and to develop recommendations for improvements in those programs;

(6) explore with other New England states and federal agencies the possibility of pooling resources and coordinating research and consultative programs; and

(7) work with other State agencies, private agencies, universities and colleges, health care institutions and professional groups in the development of environmental health education programs.

We are not in a position to give an exact estimate of the cost of the proposed program, but we believe it should not require more than four (4) additional State employees and a first year cost, including personnel services, capital expenditures, travel, grants and contracts, of \$75,000-\$100,000.

We recommend that the Legislature explore a combination of funding sources, including general revenues and hazardous substance taxes.

DEN:cl.  
Attachment

ATTACHMENT A

A PROPOSAL TO STRENGTHEN MAINE'S ENVIRONMENTAL HEALTH PROGRAM

Potential Resources

Maine Medical Center

Foundation for Blood Research, Scarborough

Bowdoin College, Department of Chemistry

University of Southern Maine

Pineland Training Center

U. S. Veterans Administration Hospital, Togus,

Bigelow Laboratory, West Boothbay

Department of Marine Resources Laboratory, West Boothbay

Mount Desert Island Biological Laboratory, Salsbury Cove

Jackson Laboratory, Bar Harbor

University of Maine at Orono

H 12

# STATE OF MAINE

Inter-Departmental Memorandum Date October 28, 1980

To Chris Holden

Dept. Office of Legislative Assistants

From Connie Irland

Dept. Executive

Subject Environmental Health Legislation

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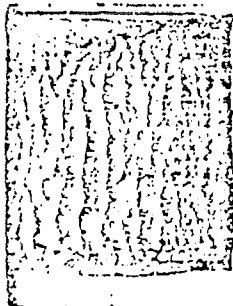
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Enclosed please find a copy of our most recent draft legislation establishing an environmental health program within the Department of Human Services. This bill may still undergo some revision before being formally presented to the legislature, but represents the basic approach we will take. Also, it has not been through the budget process and therefore, the appropriation may change.

I would appreciate your distributing a copy of this bill to the Environmental Health Committee. We would be happy to consider any suggestions or recommendations they might have in this regard.

Thanks for your help.

CJI:mas  
cc: Michael Petit



AN ACT to Establish an Environmental Health Program

Sec. 1 22 MRSA c 269 is enacted to read:

DRAFT

CHAPTER 269

ENVIRONMENTAL HEALTH PROGRAM

✓ § 1661. Findings and declaration of purpose

The Legislature finds that adequate measures must be taken to assure that any threats to the health of the people of the State posed by natural phenomena or the introduction of potentially toxic substances into the environment are identified and appropriately considered by those responsible for protecting the public's health and environment.

The purpose of this chapter is to create an environmental health program within the Department of Human Services, Bureau of Health, which would provide the department with the capability it requires to satisfactorily discharge its responsibilities and advise other departments and boards charged with similar or related responsibilities regarding the potential health implications of their actions.

§ 1662. Environmental health unit

The department shall establish an environmental health unit within the Bureau of Health. This unit shall be staffed by individuals with training and experience in environmental medicine, epidemiology, toxicology, statistics and related fields. The responsibilities of the environmental health unit shall include, but not be limited to:

1. Monitoring health status. Monitoring the health status of the State;
2. Identifying health problems. Identifying the prevalence and distribution of health problems, including those which may be related to environmental factors;
3. Investigation. Conducting investigations necessary to determine whether particular problems are related to environmental factors; and
4. Advice to state agencies. Advising the Commissioner of Human Services, as well as other state agencies and boards, such as the Departments of Environmental Protection and Agriculture, regarding the potential health implications of their actions, the nature and extent of identified problems and the steps which can be taken to address them.

DRAFT

§ 1663. Medical advisory committee

The commissioner shall appoint a committee of representatives of the public and private sectors to serve as an advisory body to the environmental health unit. The committee shall advise, consult and assist the commissioner regarding the public health implications of the introduction of potentially toxic substances to the environment. Furthermore, the committee may make recommendations to the commissioner concerning the steps which should be taken to protect the environment. The committee shall be solely advisory in nature. The committee shall be composed of not less than 9 members and shall include individuals with training and experience in environmental medicine, epidemiology, toxicology, human genetics, biomedical research and related fields. The commissioner shall appoint the chairman of the committee.

§ 1666. Acceptance of funds

The department is authorized to accept any federal funds which may be available for carrying out the purposes of this chapter.

Sec. 2. Appropriation. The following funds are appropriated from the General Fund to carry out the purposes of this Act.

HUMAN SERVICES, DEPT. OF

Environmental Health Program	FY82	FY83
Positions	(4)	(4)
Personal Services	66,930	90,244
All Other	28,500	28,500
Capital	5,500	
	<hr/> 100,930	<hr/> 118,744

STATEMENT OF FACT

This proposal is the result of 1979 Resolve, chapter 18, "RESOLVE, to Study the Need for an Environmental Health Program."

The increasing complexity of industrial processes and natural resources' management have created new problems of chemical and toxic substances' management. Recent events have focused increased public attention on the introduction of these substances into the Maine environment and actual and potential hazards these events may present. In some cases, the harm is not known or understood or may not be known for a considerable time. Currently, there is no demonstrated capability of State Government to respond to such incidents or to conduct thorough investigations concerning the long-term impact of such incidents on the public health.

DRAFT

The purpose of this bill is to enable the State to better respond to these potential environmental health hazards. It establishes a program within the Department of Human Services to carry out this vital function. The individuals in this unit must be trained and experienced in environmental medicine, epidemiology, toxicology, bio-statistics and related fields in order to provide the information needed.



STATE OF MAINE  
DEPARTMENT OF HUMAN SERVICES

AUGUSTA, MAINE 04333

November 20, 1980

MICHAEL R. PETIT  
COMMISSIONER

Testimony of William Nersesian, M.D.,  
Director of the Maine Bureau of Health

TO: The Subcommittee on Environmental Health, Committee on Health  
and Institutional Services, Maine State Legislature

I believe that the State of Maine needs a chronic diseases  
epidemiology program with the Department of Human Services. Such  
a program would fulfill the following functions:

- 1) Surveillance of morbidity and mortality from birth defects,  
cancers and chronic illnesses (lung, heart, liver, kidney, etc.)  
particularly those which may be related to environment or occupation.  
Ultimately, these studies would create a data bank which would permit  
retrospective analyses which are impossible now due to lack of such  
data.
- 2) Prospective epidemiological studies (detailed ongoing  
studies which evaluate possible links between specific factors and  
diseases).
- 3) Coordinate the above activities with academic institutions,  
private corporations, hospitals and the Poison Control Center.
- 4) Referral of inquiries regarding specific accidents or in-  
cidents involving hazardous material to appropriate agencies:  
EPA, DEP, Poison Control Center, Marine Resources, Division Health  
Engineering, State Police, etc.
- 5) Create protocols for integrated responses to catastrophes  
involving hazardous materials.

The Department's Bureau of Health would be the optimal setting  
for a chronic diseases epidemiology program, as it is the chief  
state agency responsible for public health. The following Bureau  
Divisions are either already involved with environmental health or  
have a potential for such involvement.

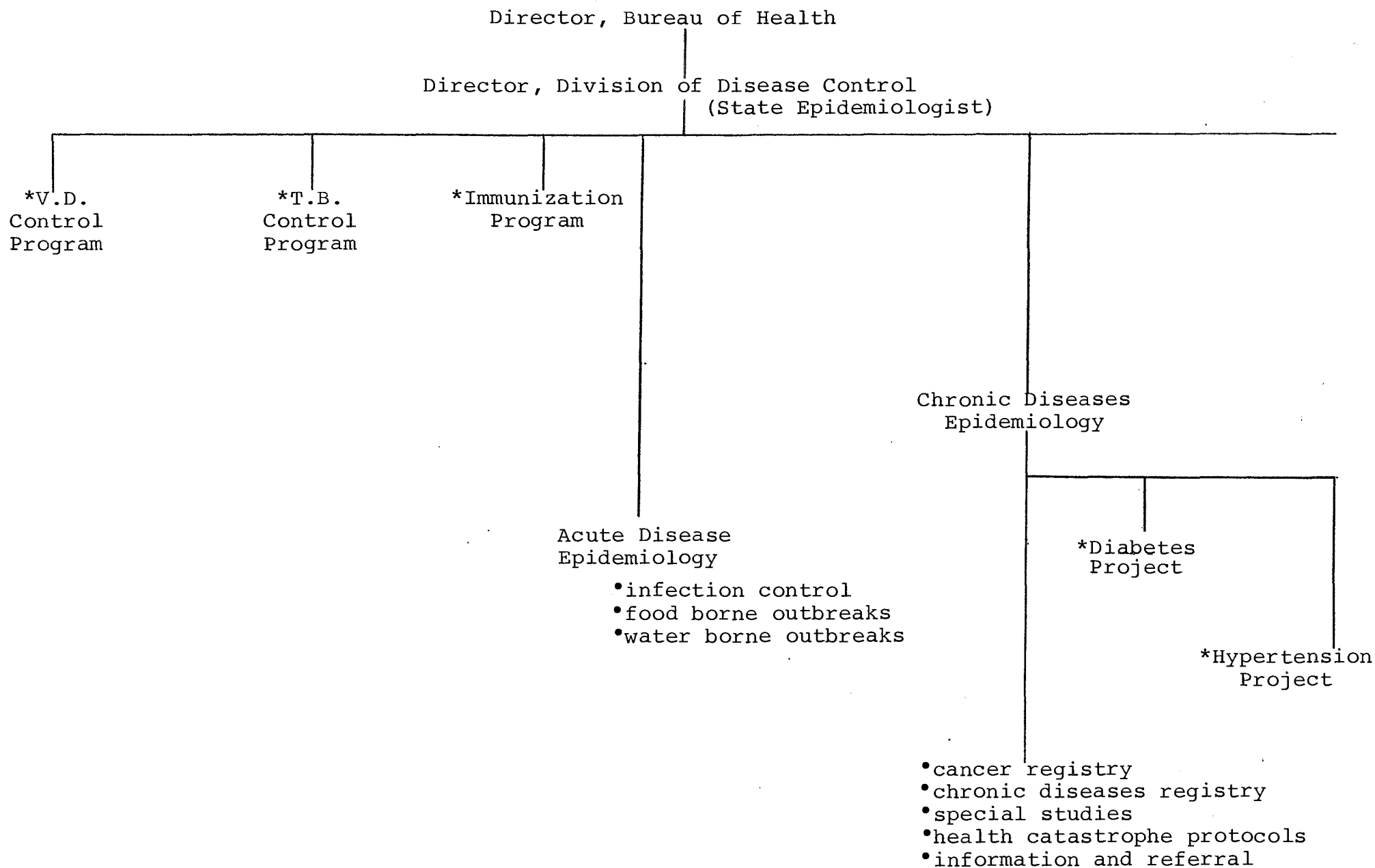
1) The State Laboratory is already responsible for all water testing done under the Safe Water Drinking Act (screening for chemicals, radioactivity and bacterial pathogens), lead screening, all pesticide assays including those done in conjunction with the Budworm spraying and all monitoring of Maine Yankee for radioactive contamination. The Lab has a mass spectrometer, 6 gas chromatographs, an Auto-analyzer, a gamma radiation analyzer, a low background beta counter, a proportional radiation analyzer and a thermoluminescent dosimeter reader. It is the best equipped laboratory in the state for dealing with assays for hazardous materials.

2) Health Engineering is a group of specialists involved with maintaining purity of public water and food sources, as well as providing technical expertise on monitoring known potential sources of contamination, e.g. Gray Water, Maine Yankee, Budworm spraying.

3) Public Health Nurses have no current role but approximately seventy nurses are situated in regional offices all over the state and represent a source of manpower for any public health emergency.

4) The Genetic Screening Program maintains some surveillance of birth defects although there is no attempt to relate these to environmental or occupational factors.

5) The Division of Disease Control recently has had the epidemiologic capability to investigate and control infectious disease outbreaks. Unfortunately, through heavy federal funding in this area, Maine's own epidemiology capability has been allowed to atrophy. Since this same legislation was first introduced last year, three changes have occurred which strengthen this division. First, through a recent grant from non-state monies, it became possible to hire a State Epidemiologist for the first time in many years (formerly Maine was dependent on U.S.P.H.S. personnel on temporary "loan"). Second, in conjunction with Spruce Budworm spray monitoring, we have funds to hire a non-physician epidemiologist with expertise in chronic disease studies. Third, as the new Bureau of Health Director, I can use my background as a former State Epidemiologist to provide additional guidance and supervision in this important area. Although the first two individuals have not been hired yet, we anticipate that they will be within the next 3-6 months. These changes in the Disease Control Division have lessened the degree of funding which would be required to run a chronic diseases program. A schematic representation of the Division of Disease Control would be as follows:



\*Existing programs, from Federal initiative

SOURCE: Dr. Nersesian, Director, Bureau of Health

AUG 28 1980

Blue Cross and Blue Shield of Maine  
Statement Regarding the Establishment of  
an Environmental Health Unit

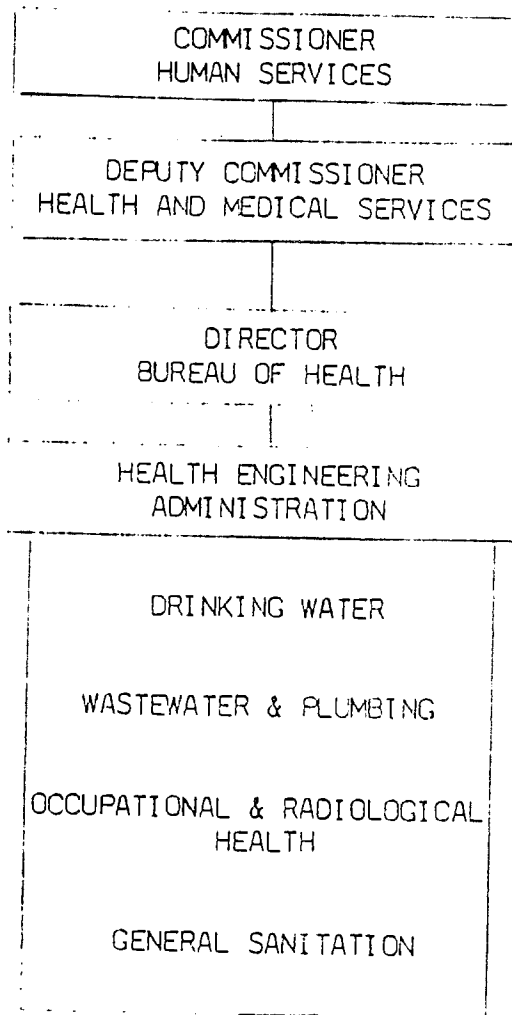
In February of 1980, Blue Cross and Blue Shield of Maine testified before the Health & Institutional Services Committee in support of the Concept of L.D. 1834, An Act to Establish an Environmental Health Program. We had some concerns with the original bill. Those concerns, which dealt with right of entry and rules and regulations, were subsequently eliminated in the amended version. The amended version also reduced the amount of the appropriation required. We felt then, as we do now, that the need exists for a designated agency to perform monitoring, investigative and advisory functions which L.D. 1834 would have made possible. We also recognize the necessity of the various disciplines which are required and necessary to perform the functions of an Environmental Health Unit and would support the allocation of funds to hire appropriate staff.

Our health promotion policy recognizes the role environmental factors can play in health and disease and encourages support of activities which advocate changes in the environment that facilitate and reinforce health.

We feel that the need for an Environmental Health Unit has increased particularly in light of problems such as those experienced in Gray, South Berwick, Saco and the Piscataquis River. Blue Cross and Blue Shield of Maine wishes to reaffirm its support of the establishment of an Environmental Health Unit, which would monitor conditions which could adversely affect the health of Maine people, would identify the prevalence and distribution of health problems, conduct investigations and advise state agencies about such problems.

It would seem that the Department of Human Services is a logical place to house an Environmental Health Unit. however, we are aware that there are private agencies who propose alternative solutions and would expect that the committee will evaluate each alternative.

From Don Hoxie  
August 28



ADMINISTRATION  
D. Hoxie & G. Bates

MISSION:

- (1) The mission of Health Engineering Administration is the overall administration, review and planning of the Division's programs.
- (2) Administer and/or Provide Support.
  - A. PLUMBERS' EXAMINING BOARD      32 MRSA Section 3301  
Administer, issue licenses, hold exams, maintain records and investigate complaints.
  - B. HEARING AID DEALERS BOARD      32 MRSA Section 1658  
Issue licenses and provide clerical support.
  - C. FUNERAL SERVICES BOARD  
Issue licenses and provide clerical support.
  - D. WATER PLANT OPERATORS      22 MRSA Section 2621  
Provide technical and clerical support for the Water Plant Operators Certification Board.

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DRINKING WATER PROGRAM  
W. Toppan

MISSION:

The mission of the Drinking Water Program is the protection of human health through maintenance of drinking water quality.

MAJOR PROGRAM RESPONSIBILITIES ARE:

- (1) Public water supplies      22 MRSA Chapter 601
  - A. Promulgate rules, inspect and regulate the drinking water quality of
    - (1) Public water utilities
    - (2) Community type supplies - subdivision, mobile home parks, schools.
    - (3) Commercial Establishments - Eating places, motels, etc.
    - (4) Commercial Springs - Bottled water
- (2) Private water supplies
  - A. Interpret, evaluate, report, bill and maintain files on all the water analyses performed by the Public Health Laboratory.
  - B. Provide consultation and advise on methods of correcting individual water supply problems.

W A S T E W A T E R   &   P L U M B I N G  
C O N T R O L   P R O G R A M  
E. Moreau

MISSION:

The mission of the Wastewater and Plumbing Control Program is to minimize exposure to the population from health and safety hazards associated with improperly installed plumbing and subsurface wastewater disposal.

MAJOR PROGRAM RESPONSIBILITIES ARE:                      22 MRSA Section 42

- (1) Promulgate a minimum State Plumbing Code.
- (2) Promulgate a minimum State Subsurface Wastewater Disposal Code.
- (3) Train and certify Municipal Plumbing Inspectors.
- (4) Review and approve local plumbing ordinances.
- (5) Maintain copies of all plumbing permits issued statewide, hold public hearings, etc.
- (6) Exam and license soil evaluators for Subsurface Wastewater Systems.
- (7) Provides the review of all engineering plans for compliance with or variance from departmental standards or rules in support of the Division's various program areas. Also performs, reviews and makes approvals and/or recommendations for Department of Environmental Protection, LURC, Department of Education, Bureau of Public Improvements, and review and approval of mausoleums, crypts, and cemeteries.

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O C C U P A T I O N A L   &   R A D I O L O G I C A L  
H E A L T H   P R O G R A M  
W. Hinckley

MISSION:

The mission of the Occupational and Radiological Health Program is to minimize exposure of the population to unnecessary health hazards in a variety of areas.

MAJOR PROGRAM RESPONSIBILITIES ARE:

- (1) Radiation Health                                      10 MRSA Section 103
  - A. Promulgate rules and register medical, industrial and educational x-ray equipment and Radionuclide users.
  - B. Environmental Surveillance of Nuclear Facilities
  - C. Maintain radiation emergency response capacities

(2) Scuba

22 MRSA Section 1566

Promulgate rules, inspect and detoxication of homes and apartments of children with lead poisonings.

(3) Lead Poisoning

22 MRSA Section 1315

Promulgate rules, inspect and detoxication of homes and apartments of children with lead poisonings.

(4) Occupational Health

Consultation and special investigations on request under U.S. Department of Labor Contract (OSHA).

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GENERAL SANITATION PROGRAM  
W. Hinckley & J. Oatsis

MISSION:

The mission of the General Sanitation Program is to minimize exposure of the population to unnecessary health hazards during their pursuit of recreation and to provide investigation and inspection support, at the regional level, for the Division's various programs.

MAJOR PROGRAM RESPONSIBILITIES ARE:

(1) General Sanitation

- A. Promulgate rules, inspect, enforce and license  
22 MRSA Section 2492

Eating and Lodging Places, Mobile Home Parks, Tents and Trailer Parks, Boys' and Girls' Camps and Vending Machines.

- B. Certify municipal sanitarians 22 MRSA Section 2499

- C. Promulgate rules, inspect and register 22 MRSA Section 42

Public Pools  
Public Bathing Beaches

- D. Promulgate rules, regulate and license

Mass gatherings 22 MRSA Section 1607  
Tattooing 22 MRSA Section 4201  
Misc. - narcotic, manufacturers, etc.

(2) Field Inspections

Provide the field inspection support function, at the regional level for the Division's various programs, plus provide investigations and inspections at the request of Office of Alcohol and Drug Abuse Prevention, Day Care Centers, Child Care Centers, Head Start Centers, Roster Homes, Public and Private Schools; Jails, etc.

(3) Residential Health

Consultation and special investigations of municipal officers and local health officers on nuisance, and health problems.

Position Title	General	Lines/Funding Federal	Dedicated
ADMINISTRATION			
Dir. of P.H. Eng.	1		
Ass't. of Dir. of P.H. Eng.	1		
Anal. Programmer II			
Steno III			
Typist III			
Typist II		(1)	2
Stores Clerk		(1)	
DRINKING WATER			
San. Eng. III		1	
San. Eng. II		1	
San. Eng. I		1	
San. II		1	
Chemist II	1		
Typist II		1	
Word Processing Oper.		1	
WASTEWATER AND PLUMBING			
San. Eng. III	1		
San. Eng. II		1	
Soil Scientist			1
Ass't. Eng.	1		
San. II			2
Typist III			1
Typist II	1		
Word Processing Oper.			1
OCCUPATIONAL AND RADIOLOGICAL			
San. Eng. III	1		
Eng. Tech IV.			1
Ind. Hygienist		1	
Occup. Health Spec.		(1)	
San. II			(1)
Ass't. Eng.			1
Typist III		1	
GENERAL SANITATION			
Supvr. P.H. San.	1		
San. II			7(3)
Typist III			1
Typist II			1
Typist I			1

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8(\*)

9(3)

19(4)

\*The division recently lost two (2) state lines  
Sanitary Engineer I and Office Manager

## General Overview of the Department of Environmental Protection

The Department of Environmental Protection (DEP) has responsibility to protect and improve the natural environment (air, land, water) of the State and enhance the public's opportunity to work and play in this environment. This responsibility is carried out through the administration of various laws which control the amounts of pollutants that may enter the environment and reduce the amounts of pollutants that may be present.

The DEP's responsibility is organized into four broad areas:

1. Air Quality Control Program (AQCP)
2. Land Quality Control Program (LQCP)
3. Oil & Hazardous Materials Control Program (OHMCP)
4. Water Quality Control Program (WQCP)

### Air Quality Control Program

38 MRSA, Sections 341-349 and 581-610

This program deals with pollution which may be potentially and actually dangerous to the health of the citizens of the State. Physical discomfort such as eye and skin irritations as well as breathing difficulties can be the effect of excessive pollutants. In addition, injury to property values and impairment of recreational resources frequently result from the contamination of the environment.

Air pollution is controlled by licensing specific sources of air emissions. This process limits the concentrations that may be emitted into the ambient air. These limits are based upon statutory emission standards and determinations of best practicable treatment of each emission which are designed to achieve statutory ambient air quality standards.

At the present time there are six (6) ambient air quality standards.

(38 MRSA, Section 584-A)

1. Particulate matter;
2. Sulfur dioxide;
3. Carbon monoxide;
4. Photochemical oxidant;
5. Hydrocarbon; and
6. Nitrogen dioxide.

Emissions are monitored by periodic reporting by the licensee, inspections, and investigation of complaints. The ambient air is monitored through an air quality network operated and maintained by the DEP. The data is gathered and analyzed for compliance with license conditions, emission standards and ambient air quality standards.

The Bureau of Air Quality Control has a current staff of 27 persons (11 state funded and 16 federal funded). This staff has skills in the fields of engineering, meteorology and chemistry as well as general technical skills needed to maintain complex scientific equipment.

#### Land Quality Control Program

38 MRSA, Sections 341-344; 386-397; 417; 421; 471-478;  
481-489; and 1301-1313.

This program is one of the most visible programs in the DEP. It includes great pond activities; wetlands (marine) alterations; minimum lot size suitable for underground disposal; septage (septic tank materials) disposal; solid waste management (recycling, resource recovery, land disposal); and site location review. More individuals are directly touched by this program than the other three managed by the DEP.

The solid waste management and septage elements of this program are most significant in terms of public health, safety or welfare. The other programs have a greater bearing on the non-human factors of the environment.

Permit and license holders periodically report operational activities to the DEP. Increasing emphasis is being placed on installing monitoring wells in the vicinity of landfills. Staff investigations of complaints and routine inspections round out a basic monitoring program.

The Bureau of Land Quality Control has a staff of 31 persons (17 state funded and 14 federal funded). The solid waste management and septage elements have 6 persons (3 state funded and 3 federal funded) assigned. The skills of the staff are in the areas of engineering, soil sciences, forestry, geology, and general technical expertise.

#### Oil and Hazardous Materials Control Program

38 MRSA, 341-349; Sections 541-560; and 1301-1311\*

This program has both old (oil conveyance) and new (hazardous materials) elements. It is in a state of flux at the present time as efforts are under way to meld the two elements into one cohesive force. The program deals with all types of hydrocarbon (oil and oil related products) discharges into the environment. The primary focus of the oil element is preventive but the most visible aspects are the spill clean-up activities. The hazardous materials element has spill clean-up activities as well as the usual regulatory aspects such as licensing of disposal, storage and transporters of hazardous waste. The full scope of the hazardous materials problems facing the State is presently unknown. No matter what the scope will be in the future it is known that improper disposal and handling of hazardous material have a significant

impact on the health, safety or welfare of the persons exposed, directly or indirectly, to the hazard. There will be a substantial need to provide immediate and accurate assessments of potential and real dangers to the citizens of this state.

The oil phase of this program is generally adequately defined. It includes licensing of terminals, routine inspections, investigations of complaints and spill clean-up anywhere in the State of Maine. In recent years increasing attention has been given to groundwater contamination. The hazardous materials phase is now in its infancy. There is limited monitoring performed and what is undertaken is the result of "crisis" and in some cases panic reaction to the unknown.

The Bureau of Oil and Hazardous Materials Control is staffed by 20 people. (17 funded by the Oil Conveyance Fund (OCF) and 3 funded by federal funds). The bulk of the persons funded by the OCF are stationed in Portland with a smaller staff in Bangor and Augusta. The hazardous element is completely federal funded with no state resource commitment at this time. The staff has skills in the area of engineering, chemistry, marine sciences and other related technical fields.

#### Water Quality Control Program

38 MRSA, Sections 341-349; 361-A-372;

386-397; 411-424; 451-452; 1061-1067;

1101-1106; and 1201-1210

This program has been in existence in one form or another since the early 1940's. It has successfully abated the most serious forms of point (end of pipe) discharges and is in the process of refining these efforts. Non-point (run-off and scattered drainage) discharges are receiving increasing attention and abate-

ment efforts are slowly being undertaken. Toxic discharges (chemicals dangerous to aquatic life as well as humans) are also being focused upon for it is this type of discharge, point and non-point, which can have a significant impact on the health, welfare or safety of the people of the State.

Water pollution is controlled by licensing specific sources of effluents. This process limits the concentrations of pollutants that may be discharged into water of the State. These limits are based on best practicable treatment and effluent standards which are designed to achieve the water quality objectives of the statutory classification system.

Effluents are monitored by periodic reporting by the licensee, routine maintenance and operation inspections and the investigation of complaints. The water quality of lakes, rivers and streams are monitored systematically by an on-going monitoring program. The data is gathered, then analyzed for compliance with license conditions, effluent standards and water classification standards.

The Bureau of Water Quality Control is staffed by 94 people (32 state funded and 62 federal funded). This staff has skills in the fields of engineering, biology, fisheries, chemistry and other scientific and technical areas needed to support its mission.

#### Administrative Services Program

The four line bureaus are supported by administrative services which provide the necessary accounting, personnel, budget, purchasing and computer functions.

The Bureau of Administrative Services is staffed by 19 persons (9 state funded and 10 federal funded).

### Environmental Health

Environmental Health is a broad term but the Department pictures a four-fold need in this area. First, there is a need to establish a broad base, statistically accurate state-wide data base. In other words we need to know what is there. Second, there is a need to be able to quickly gather information about specific incidents. Third, there is a need to be able to assess effects and relate these effects to known situations. Fourth, there is a need to be able and willing to provide specific advice when persons are exposed to both short term and long term hazardous incidents.

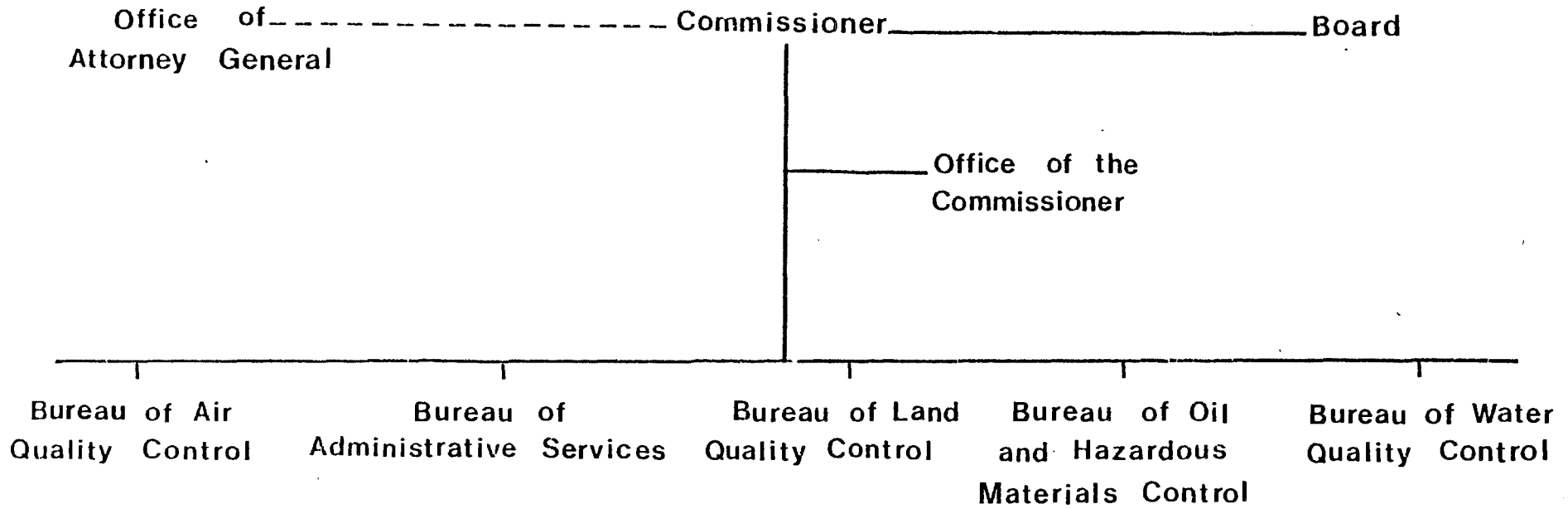
Within the context of the general needs outlined above, the DEP has these specific needs:

1. Prompt, accurate, and authoritative advice in regard to the chronic or acute effect of a specific chemical on health safety or welfare.
2. Authoritative studies that assess the effect, chronic or acute, of pollutants on specific population areas.
3. A source that is capable and willing to determine the merits of conflicting health related testimony provided on behalf of applicant or licensees.
4. Experts that will be readily available to advise the state whenever health related standards are under consideration.
5. Research, continuing and short term, environment issues that will have a bearing on health, safety or welfare.
6. Qualified health professionals to be available to staff in a crisis situation.

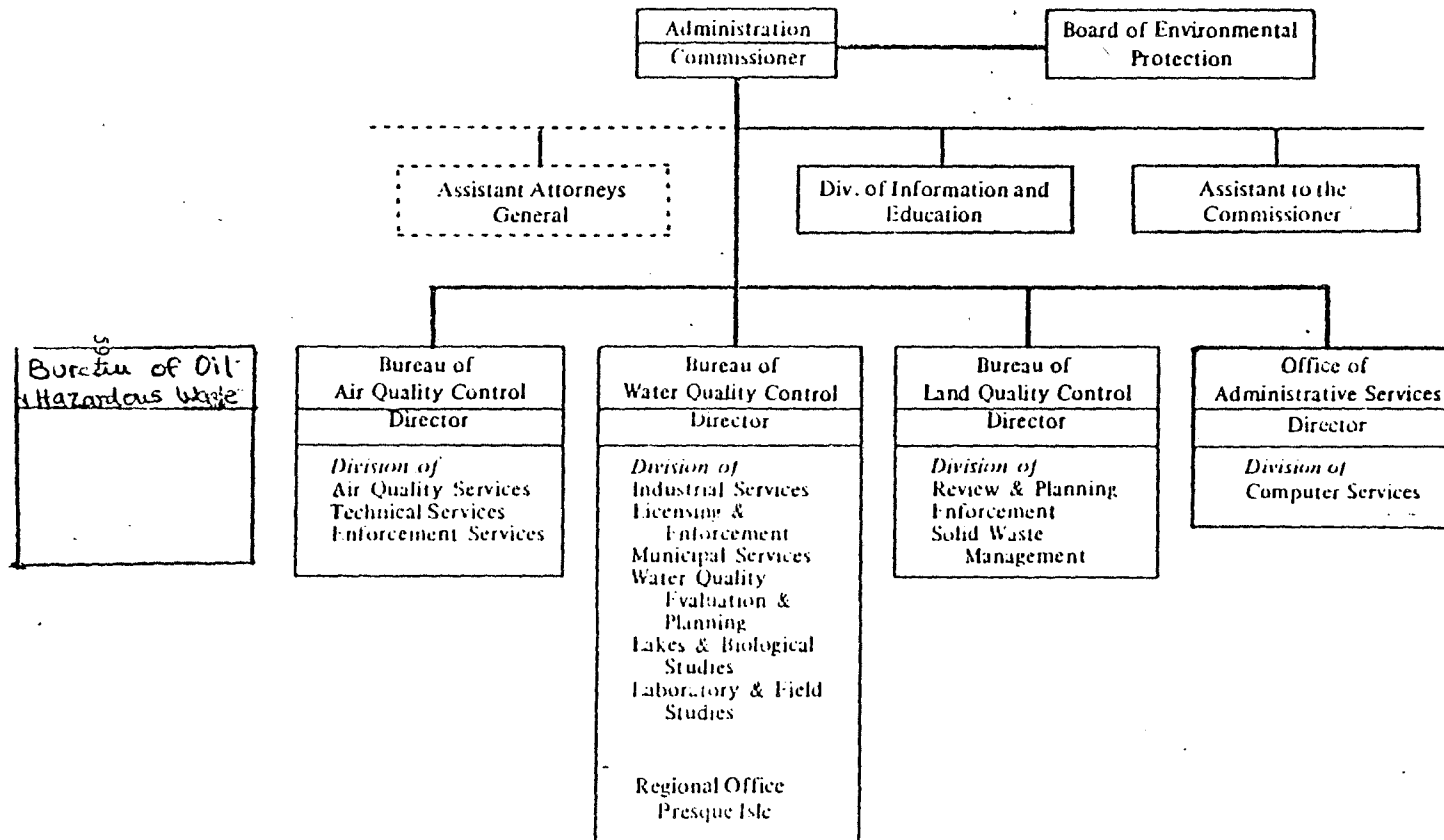
In most cases, these needs are not being adequately met by the current program.

# DEP

## organizational structure



# ORGANIZATION CHART DEPARTMENT OF ENVIRONMENTAL PROTECTION



NATURAL RESOURCES

RESOURCES  
 Bal. Br. Fund—  
 Bal. Br. Fund—  
 Revenue from  
 Sale of Security  
 Legislative App.  
 Adjustment of  
 Transfers—Fed  
 TOTAL RES

EXPENDITURES  
 Salaries and Wa  
 State Share of R  
 Prof. Service, No  
 Computer Service  
 Other Prof. Serv  
 Travel Expense,  
 Travel Expense,  
 Operation—State  
 Utilities  
 Rents  
 Repairs  
 Insurance  
 General Operatin  
 Fuel  
 Other Supplies  
 Highway Material  
 Grants to Pub & L  
 Misc. Grants to In  
 Buildings & Impro  
 Equipment Purchase  
 Trans. to Gen. Fun  
 TOTAL EXPEN

## TESTIMONY BEFORE THE SUBCOMMITTEE ON ENVIRONMENTAL HEALTH

Our concerns about the so-called environmental health capabilities of the State stem primarily from the Department's involvement with pesticide issues. The Department's pesticides responsibilities are twofold: first the Commissioner is responsible for the registration of pesticides for use in this State; and second, the Pesticide Control Board, which is administratively housed within the Department, is responsible for licensing pesticide applicators and for regulation of pesticide distribution. If you like, I will discuss with you later the specifics of existing staff functions and funding for these two programs but I would like to discuss with you first the general parameters of our concerns.

We register approximately 3800 pesticides per year and we have millions of pounds of various product applied in the State. As you know, the public concern about pesticide application has increased dramatically over the past several years. Our ability to respond to this increasing public awareness and doubt has been extremely limited. We have no staff capability to address health concerns. For registration and Pesticide Control Board functions, we have 4 fulltime and 5 parttime professional staff, none of whom have the expertise or the time to deal with/<sup>complex</sup> health issues. This inability is a severe detriment to us as a State agency faced with the need to make informed policy decisions. This same inability also tends to lead to decisions which may unnecessarily impair the capacity of our farmers to economically produce our food supply.

Simply put, we have unfulfilled needs for more health expertise in the State. We need a source for information for emergency situations, but more importantly we need resources to develop an accurate health data based concerning

pesticide use. Where there is reliable health data to indicate adverse health effects, we should know this and take whatever steps may be appropriate to address these health impacts. Our farmers do not wish to use chemicals which hurt themselves, their children or their land. Neither do they wish to have the use of chemicals on which they rely prescribed where there is no substantiated evidence of adverse health impact. Without accurate health data, the State remains incapable of determining these policy issues appropriately. Consequently, in the face of intense public criticism and doubt, and in the absence of adequately compiled data, we as policy makers cannot afford to risk allowing certain pesticide applications to continue. Often, when faced with such demands, we may have to forfeit economic benefits which might be obtained if the pesticide use being challenged were allowed to continue. Unfortunately, this forfeiture may well be for a risk which is not there. We simply do not have the resources to know.

In addition to this obvious and straightforward need to have accurate data and advice on which to base our regulatory decisions about pesticides, there is a more subtle reason that we need a health expertise capability. We need this capability to establish and maintain public credibility. I sometimes hear people say that a given pesticide product is perfectly safe. As support for that view, they say they have been using the product for years, and they may be right. But in an era where health issues are not always either immediate or visible, this is not enough assurance to those concerned about long term possibilities regarding carcinogenicity, mutagenicity and teratogenicity. The fact that State officials may also say a product is safe is not enough to address these concerns, nor should it be given our current situation. However, we do not have the capability to do much more. Of course,

we do try to respond. We do attempt to address crisis situations; (for example, in Dennysville, we did our own sampling to the extent our budget and the Governor's contingency fund allowed.) We have also made a beginning effort to respond to long range health concerns. I firmly believe that this effort has served us in good stead, but we need more resources to continue.

As you know, the Commissioner is responsible for registering pesticides. We have the authority, indeed the only authority in the State, to require pesticide formulae and test data. Last year, in view of the increasing public concern and our previous experience with our own inability to respond to questions, we convened an ad hoc medical committee to review health data for registration of 15 pesticides of particular concern in this State. This committee, which was chaired by Dr. Frank Lawrence of the Poison Control Center, served without pay. They donated an extensive amount of time to develop a matrix system for analyzing the available health information concerning these products. After the review of the data which they could find or the Commissioner could obtain the committee submitted a report to us defining relative health effects and recommending that aerial application of certain pesticides be restricted. We are planning to hold a public hearing this fall to consider this recommendation.

The Committee's services were invaluable to us in two ways: first, for the substantive information and recommendations, and second, for the establishment of a framework which provides us with a credible basis for response to questions or demand for emergency rule-making. The committee's functions were necessarily limited. Obviously, we cannot expect continued free services of the medical community. Even if we could, without staff support, their effectiveness will remain limited. While the committee did what they could on volunteer time,

there was some data they were not able to pursue, some data which would involve a long term effort to obtain and some data which needed to be expanded in order to be put into perspective. We are currently unable to address these continuing needs responsibly. A beginning has been made, however, which could be continued with staff support and resources.

Last year the Governor's pesticide bill suggested the formation of an environmental health/<sup>advisory</sup>committee funded by pesticide registration fees. This was withdrawn early from/<sup>the</sup>legislation because we thought needs would be addressed by environmental health funding being proposed for DHS. Since this was not the case, I'd like to suggest again that legislation be enacted authorizing the creation of a medical advisory committee of public and private experts, with operational funds and staff support obtained by an increase in registration fees to be specifically earmarked for this purpose. Such a legislative mandate would make clear the State's commitment to safe pesticide use. We would not be left completely to the kind offices of the medical community, nor would we be left to the patchwork of whatever other health efforts may result from other federal or state programs. We believe the public generally and the agricultural community specifically, would be best served by such explicit legislative support of efforts to address the growing awareness of health concerns related to pesticides. I would be happy to provide you with a draft legislative proposal to this end, or to answer any other questions you may have.

Sarah Redfield  
Associate Commissioner  
Department of Agriculture

TESTIMONY PRESENTED BY  
NANCY ROSS, DIRECTOR  
DIVISION OF PLANNING AND PROGRAM SERVICES  
DEPARTMENT OF CONSERVATION  
TO THE SUBCOMMITTEE ON ENVIRONMENTAL HEALTH  
OF THE COMMITTEE ON HEALTH AND INSTITUTIONAL SERVICES  
JULY 18, 1980

MY NAME IS NANCY ROSS. I AM DIRECTOR OF PLANNING AND PROGRAM SERVICES FOR THE DEPARTMENT OF CONSERVATION AND AM REPRESENTING THAT DEPARTMENT IN MY REMARKS TODAY.

AT THE HEARING LAST WINTER ON L.D. 1834, AN ACT TO ESTABLISH AN ENVIRONMENTAL HEALTH PROGRAM, COMMISSIONER BARRINGER SUGGESTED THAT, IF THE STATE IS TO CONTINUE CARRYING OUT THE NATION'S LARGEST AERIAL CHEMICAL SPRAY PROGRAM, THAT IS, THE DEPARTMENT OF CONSERVATION'S BUDWORM SPRAY PROGRAM, IT COULD DO SO RESPONSIBLY ONLY IF THE STATE ESTABLISHES AN ENVIRONMENTAL HEALTH CAPABILITY SUCH AS THAT PROPOSED IN L.D. 1834. WE ALSO NOTED AT THAT TIME THAT WE FEEL IT IS NOT APPROPRIATE FOR SERIOUS HEALTH CONCERNS TO BE RESOLVED BY THE SPRAYING AGENCY ITSELF BECAUSE OF THE INHERENT CONFLICT INVOLVED. WE SUPPORTED THE ESTABLISHMENT OF AN ENVIRONMENTAL HEALTH CAPABILITY IN THE BUREAU OF HEALTH, DEPARTMENT OF HUMAN SERVICES.

WHEN IT BECAME APPARENT LAST SPRING THAT L.D. 1834 WAS NOT GOING TO BE ENACTED, REPRESENTATIVE SANDRA PRESCOTT WORKED VERY DILIGENTLY AND EFFECTIVELY TO SALVAGE THAT PORTION OF THE ENVIRONMENTAL HEALTH UNIT PROPOSAL THAT WAS NEEDED TO PROVIDE FOR A RESPONSIBLE BUDWORM PROGRAM FROM THE PERSPECTIVE OF HUMAN HEALTH.

L.D. 2015, WHICH BECAME CHAPTER 737 OF THE PUBLIC LAWS, THE

MAINE SPRUCE BUDWORM MANAGEMENT ACT, WAS AMENDED BY REPRESENTATIVE PRESCOTT TO MANDATE AN ENVIRONMENTAL HEALTH MONITORING PROGRAM TO BE CARRIED OUT BY AN AGENCY OTHER THAN THE DEPARTMENT OF CONSERVATION. THE LAW ALSO REQUIRED OUR BUREAU OF FORESTRY TO PREPARE AND SUBMIT AN ANNUAL REPORT TO THE LEGISLATURE DEALING WITH ALL ASPECTS OF THE ENVIRONMENTAL HEALTH MONITORING CONDUCTED DURING THE PREVIOUS CALENDAR YEAR.

TO FUND THIS ENVIRONMENTAL HEALTH MONITORING PROGRAM, AN ADDITIONAL LEVY OF ONE CENT PER ACRE ON SOFTWOOD LANDS AND ONE-HALF CENT PER ACRE ON MIXED WOOD LANDS WAS ADDED TO THE SPRUCE BUDWORM EXCISE TAX. THIS ADDITIONAL AMOUNT WILL RAISE \$50,000 FOR THE 1980 PROGRAM. WE ANTICIPATE THAT THE AMOUNT NEEDED FOR AN ENVIRONMENTAL HEALTH MONITORING PROGRAM WILL BE CALCULATED AS A REGULAR SPRUCE BUDWORM SPRAY PROJECT COST IN FUTURE YEARS SO THAT THE REQUIRED FUNDING WILL BE RAISED BY THE BUDWORM EXCISE TAX IN ORDER TO CARRY OUT THE LEGISLATIVE MANDATE.

THE DEPARTMENT OF CONSERVATION CONTRACTED WITH THE DEPARTMENT OF HUMAN SERVICES TO CARRY OUT THE ENVIRONMENTAL HEALTH MONITORING PROGRAM FOR THIS YEAR. THE MEMORANDUM OF UNDERSTANDING WHICH I HAVE DISTRIBUTED TO YOU OUTLINES THE TASKS WHICH WILL BE ACCOMPLISHED TO IMPLEMENT A STUDY OF THE IMPACT OF THE SPRUCE BUDWORM SPRAY PROGRAM ON HUMAN HEALTH.

THE MAJOR PART OF THE PROGRAM IS THE DESIGN OF A HEALTH SURVEILLANCE SYSTEM TO BEGIN TO DETERMINE THE NATURE AND EXTENT OF THE EFFECTS, IF ANY, OF BUDWORM SPRAYING ON THE HEALTH OF RESIDENTS IN POPULATED AREAS NEAR THE SPRUCE FIR DISTRICT. TWO INDIVIDUALS,

A CONSULTING EPIDEMIOLOGIST AND A MASTER'S IN PUBLIC HEALTH (MPH) WITH A CONCENTRATION IN ENVIRONMENTAL HEALTH OR EPIDEMIOLOGY, WILL BE INVOLVED IN THIS TASK. THE CONSULTING EPIDEMIOLOGIST WILL REVIEW THE HEALTH QUESTIONS SURROUNDING BUDWORM SPRAYING, DETERMINE WHAT HEALTH INFORMATION NEEDS TO BE COLLECTED, DESIGN A DATA COLLECTION SYSTEM AND MAKE THE INITIAL CONTACTS TO BEGIN TO COLLECT INFORMATION. THE MPH WILL SERVE AS PROGRAM COORDINATOR AND COLLECT THE HEALTH DATA ON A CONTINUING BASIS. BOTH INDIVIDUALS WILL MEET PERIODICALLY TO ANALYZE DATA AND EVALUATE THE STUDY.

THE SECOND ASPECT OF THE PROGRAM IS THE ESTABLISHMENT AND MAINTENANCE OF A CURRENT FILE OF DATA ON INSECTICIDE RESEARCH. INSECTICIDES ARE CONSTANTLY UNDER STUDY. WHETHER THE MAINE FOREST SERVICE CONTINUES TO USE SEVIN-4-OIL AND BT OR WHETHER NEW CHEMICALS ARE CONSIDERED FOR USE IN FUTURE BUDWORM PROGRAMS, THE FOREST SERVICE NEEDS READY ACCESS TO RELEVANT INFORMATION AS IT IS GENERATED. THE DEPARTMENT OF HUMAN SERVICES HAS SUBCONTRACTED WITH THE POISON CONTROL CENTER TO CONTINUE A LITERATURE REVIEW STARTED BY THE FOUNDATION FOR BLOOD RESEARCH.

ALSO SUBCONTRACTED TO THE POISON CONTROL CENTER IS THE RESPONSIBILITY FOR NOTIFYING HOSPITALS AND MEDICAL PERSONNEL IN AND AROUND THE SPRAY AREA OF POTENTIAL EFFECTS OF INSECTICIDES BEING USED DURING THE BUDWORM SPRAY PROGRAM. IN ADDITION, THE CENTER WILL PROVIDE MEDICAL CONSULTATION TO ANY CONCERNED PERSON.

THE FINAL PROGRAM ACTIVITY TOOK PLACE DURING THE 1980 SPRAY SEASON. AIR SAMPLES WERE COLLECTED AT THE SAME TIME AND PLACE AS U. S. ENVIRONMENTAL PROTECTION AGENCY (EPA) SAMPLES WERE BEING COLLECTED. BECAUSE EPA USED EXTREMELY SENSITIVE EQUIPMENT THIS YEAR,

THE COLLECTION WAS DONE TO COMPARE THIS YEAR'S DATA WITH THE DATA COLLECTED ON LESS SENSITIVE EQUIPMENT IN THE PAST. THIS ALLOWS FOR A RECALCULATION OF AIR DATA TO GIVE A MORE ACCURATE PICTURE OF ACTUAL EXPOSURES.

THE DEPARTMENT OF HUMAN SERVICES' PROGRAM COORDINATOR WILL BE RESPONSIBLE FOR MONITORING AND EVALUATING ALL ASPECTS OF THE PROGRAM AND WILL SUBMIT A PROGRESS REPORT TO THE DEPARTMENT OF CONSERVATION, MAINE FOREST SERVICE BY DECEMBER 1, 1980.

THE TASKS TO BE CARRIED OUT UNDER THE MEMORANDUM OF UNDERSTANDING WILL MEET THE DEPARTMENT'S NEEDS AS WE PRESENTED THEM TO YOUR FULL COMMITTEE LAST SPRING.

THE FACT THAT OUR NEEDS ARE MET DOES NOT MEAN THAT WE NO LONGER SUPPORT THE FORMATION OF A CENTRAL ENVIRONMENTAL HEALTH UNIT IN STATE GOVERNMENT. SUCH A UNIT OFFERS TWO ADVANTAGES TO THE DEPARTMENT OF CONSERVATION.

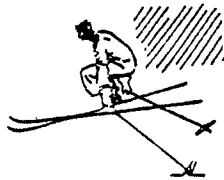
FIRST, WE FEEL THAT THE PROGRAM COORDINATOR FOR THE BUDWORM HEALTH MONITORING PROGRAM WOULD DO A BETTER JOB IF HE OR SHE WERE WORKING AS PART OF A TEAM. THE PRESENCE OF SEVERAL INDIVIDUALS WITH COMPLEMENTARY TALENTS AND DIFFERENT AREAS OF EXPERTISE WOULD IMPROVE THE QUALITY OF ANY INDIVIDUAL PROJECT UNDERTAKEN BECAUSE OF THE EXCHANGE OF IDEAS, TECHNIQUES AND RESEARCH INFORMATION WHICH EACH MEMBER OF THE UNIT WOULD BRING. WE FEEL THIS IS A CASE WHERE THE WHOLE PRODUCT WOULD BE GREATER THAN THE SUM OF ITS PARTS.

SECOND, WE AGREE WITH THE DEPARTMENT OF AGRICULTURE THAT THEIR PESTICIDE REGULATORY CAPABILITY WOULD BE GREATLY IMPROVED BY AN ENVIRONMENTAL HEALTH UNIT. THE DEPARTMENT OF AGRICULTURE IS THE

STATE AGENCY WHICH UNDER STATE LAW REGULATES THE BUDWORM PROGRAM. IT IS IN THE BEST INTERESTS OF THE BUDWORM PROGRAM AND MAINE PEOPLE THAT THE PROGRAM BE SUBJECT TO THE HIGHEST POSSIBLE QUALITY OF REGULATION. FOR THIS REASON, WE SUPPORT AGRICULTURE'S POSITION. REINFORCEMENT OF THIS SUPPORT COMES WITH THE RECENT HEAVY INFESTATIONS OF GYPSY MOTH AND TENT CATERPILLAR WHICH ARE CREATING NEW PRESSURES TO SPRAY IN RESIDENTIAL AREAS. THE DEPARTMENT OF AGRICULTURE WILL NEED THE MOST CURRENT AND ACCURATE HEALTH INFORMATION ON THOSE PESTICIDES WHICH COULD BE USED TO CONTROL THESE INSECTS.

BEFORE I CLOSE, I WILL SAY THAT THE DEPARTMENT OF CONSERVATION IS VERY PLEASED THAT THIS SUBCOMMITTEE IS LOOKING INTO STATE GOVERNMENT'S NEEDS IN THE AREA OF ENVIRONMENTAL HEALTH. I THANK YOU FOR THE OPPORTUNITY TO ADDRESS YOU TODAY.

oOo



- \$20,000    Poison Control Center
- 25,000    Devoted to recruitment and support of the Master's level epidemiologist responsible for design and conduct of the surveillance program.
- 5,000    Represents cost of laboratory work, environmental sampling and acquisition of consultant services from a physician-epidemiologist.

## MEMORANDUM OF UNDERSTANDING

The purpose of the Memorandum of Understanding is to define the respective responsibilities of the Department of Conservation and the Department of Human Services in the design and conduct of an effort to study the impact of the Spruce Budworm Spray Program on the health of the residents of the spruce-fir district and adjacent populated areas and, more generally, the people of Maine.

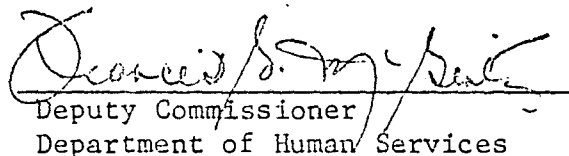
1. The Department of Conservation shall commit the sum of \$50,000 to the Department of Human Services for the performance of the activities described in this document. The Department of Human Services shall commit whatever additional resources it has at its disposal to assure the successful completion of such activities.
2. The Department of Human Services shall proceed immediately to take whatever steps are necessary to recruit and retain a Program Manager with the qualifications to direct this effort. Such qualifications are expected to include the attainment of a Master's Degree in Public Health with an emphasis in epidemiology and/or toxicology. In order to assure that the Program Manager is acceptable to both parties the Department of Conservation shall participate in the selection process.
3. In addition to managing the other activities described below the Program Manager employed by the Department of Human Services shall be primarily responsible for establishing a chronic disease monitoring program in the spruce-fir district and adjacent populated areas. Such a program will involve the development of new data sources as well as the use of existing sources and will be designed with the assistance of a consulting epidemiologist to be retained by the Department of Human Services. The program will be designed prior to December 1, 1980.
4. The Department of Human Services' Division of Health Engineering shall use available equipment and personnel to perform environmental sampling for the agents sprayed. This will involve bulk air samples in population centers as well as a limited amount of forest sampling in conjunction with the Environmental Protection Agency so that the data acquired by that Agency in past could be used in future calculations of human exposure amounts. The primary objective of this sampling is to evaluate the effectiveness of present Maine Forest Service buffers.
5. The Department of Human Services will contract with the Maine Medical Center's Poison Control Center for the following services:
  - A. Continuing the literature review and analysis of the agents used and planned for future use in the spray program that the Foundation for Blood Research began with a grant from the Department of Human Services;
  - B. Notifying physicians and hospital emergency room personnel in the areas in which the spray program is conducted of the potential acute effects of inadvertent direct exposure to the agents used and requesting such physicians and

hospital personnel to report suspect or confirmed acute health effects of the spraying;

- C. Providing medical consultation to health professionals and the public in response to calls concerning the health effects of the agents used; and
  - D. Maintaining a retrievable line listing of the calls received in connection with the Spraying Program.
6. On or before December 1, 1980 the Department of Human Services will submit to the Department of Conservation, Maine Forest Service a detailed progress report on the performance of activities described in this document.

This Memorandum of Understanding shall remain in effect for a period of one year unless it is modified at an earlier date to reflect activities to be carried out in connection with the 1981 Spray Program.

  
Department of Conservation

  
Deputy Commissioner  
Department of Human Services

Date: 16 May 1980

Date: 19 May 1980

The Department of Human Services submitted oral testimony which was essentially a restatement of their position on the earlier legislation.