



AGENDA '90
The Massachusetts
Environmental Challenge

FINAL REPORT AND RECOMMENDATIONS
of the
SPECIAL COMMISSION on ENVIRONMENTAL
OPERATIONS

JANUARY 1989

TD
171.3
.M4
M37
1989



AGENDA '90
The Massachusetts
Environmental Challenge

FINAL REPORT AND RECOMMENDATIONS
of the
SPECIAL COMMISSION on ENVIRONMENTAL
OPERATIONS

U. S. DEPARTMENT OF COMMERCE NOAA
COASTAL SERVICES CENTER
2234 SOUTH HOBSON AVENUE
CHARLESTON, SC 29405-2413

JANUARY 1989

TD171.3.M4 M37 1989
21330276

DEC 15 1987

Property of CSC Library

Table of Contents

Acknowledgement	1
Message from the Chairman	2
I. Overview: Responding to Change: Planning for the Future	4
From After-the-Fact Approaches to Prevention	5
From Unbalanced Growth to Sustainable Development	7
The Commission's Principal Recommendations	9
II. New Directions in Policy	11
How Should EOEA Work?	12
Barriers to Effectiveness	14
Prescriptions for Change	16
III. Strengthening the Operating Agencies	29
The Department of Environmental Protection:	
A New Name, a New Beginning	30
The Department of Waste Reduction and Management	39
The Department of Natural Resources Conservation	43
Cross-agency Concerns	45
IV. Financing Environmental Protection	52
The Price of Protection	52
The Coming Squeeze	55
Closing the Gap	57
V. Public Participation and Oversight	63
Policy Advisory Boards	64
Agency-level Boards	65

Public Oversight of Disposition of State Lands	68
Long-term Oversight	68
Appendix 1: Implementation Plan	70
Appendix 2: Dissenting Opinions and Recommendation	79
Appendix 3: Purpose, Membership and Process of the Special Commission on Environmental Operations	84
Exhibit A: Organization of the Executive Office of Environmental Affairs	15
Exhibit B: Recommended Organization of the Executive Office of Environmental Affairs	20
Exhibit C: Location of Offices within EOEA	50
Table 1: Grant Programs Administered by EOEA	46
Table 2: Major Capital Programs: Current Outlays and Projected Five Year Needs	54
Table 3: Operating Budget: Current State Expenditures and Projected Five Year Needs	56

Acknowledgement

The members of the Special Commission on Environmental Operations are all too aware of the hassles that can attend any attempt to serve 23 Commissioners simultaneously. Our many Commission and committee meetings, our voluminous memoranda and draft reports, our dozens of interviews, our telephone conversations and written correspondence, and of course this Final Report all fell to the capable hands of our Executive Director, Bonnie Christie. Her unflagging dedication to the success of our work is acknowledged with affectionate gratitude. Katie Ullman and Scott Boots comprised her tiny but productive staff; consultant Jim Gomes' contribution to the latter stages of this Final Report has been outstanding. The chapter on Financing Environmental Protection reflects many hours of detailed research by intern Janet Hartke. A key assignment for Undersecretary William M. Eichbaum was liaison between the Secretariat and the Commission. The process and the product were helped immeasurably by his cooperation and diplomacy. We hope that we speak for the citizens of the Commonwealth thus well served when we thank them all for a tough job very well done.

Message from the Chairman

The environment. Why should we care about it? Why should anyone bother to protect it? Well, there are four reasons that we would put forth.

First, guardianship. This state, in this country, on this Earth, is our responsibility. This is our place and our time. We were given this land and water and air and we will pass them on to our children. In the larger scheme of things our mandate is to guard this environment. We embrace that mandate.

Second, serenity. A despoiled environment violates our sense of peace. Unclean water, foul air, too much asphalted land, the absence of wildlife - these are assaults on our basic being. If our environment is without quality and without harmony then we will inevitably descend into behavior that is also without quality and without harmony.

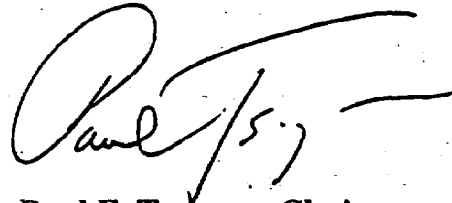
Third, economic well-being. As a state we have no fossil fuels, mineral deposits or warm winters. Our resources are our coast, our forests, our rivers, our farmland, our wildlife and, most importantly, our people. Our economic vitality derives from creative people being educated and remaining here, then developing ideas, companies and great institutions of learning and medicine. People remain here because of the quality of life to be enjoyed. Destroy that quality of life and we have cut off our source of long-term economic sustenance.

Fourth, survival. Man's most basic instinct is to endure. Threats to his survival are not to be tolerated. We must eat, we must drink, we must breathe. If we take pollutants into our bodies we will suffer the obvious consequences. Trash the environment and we trash our own health. Even the most primitive form of life will struggle to ensure its survival. How ironic that we of superior intelligence would do less.

This report, although concerned with issues of management, is ultimately about making choices for our future. The Commission believes that those choices must include the decision to renew and strengthen our commitment to the environment as defined in Article 97 of the Massachusetts Constitution:

"The people shall have the right to clean air and water, freedom from excessive and unnecessary noise, and the natural, scenic, historic and esthetic qualities of their environment; and the protection of the people in their right to the conservation, development and utilization of the agricultural, mineral, forest, water, air and other natural resources is hereby declared to be a public purpose..."

It is with these rights very much in mind that we submit this report to the people of Massachusetts.

A handwritten signature in black ink, appearing to read "Paul E. Tsongas". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

**Paul E. Tsongas, Chairman
Special Commission
on Environmental Operations**

I. Overview

Responding to Change: Planning for the Future

"All is flux; nothing stays still."

- Heraclitus

The attempt by government to protect the environment is relatively new. It was only recently, in the early 1970s, that the federal Environmental Protection Agency was created, the Commonwealth amended its Constitution to guarantee fundamental environmental rights to its citizens, and the current organization of the Massachusetts Environmental Affairs Secretariat (the Secretariat) was established. While the conservation functions of government have a longer history, many of the significant developments in the field of environmental protection have taken place during the working lifetimes of the members of the Commission.

In the months during which this report was prepared, the Commission looked intensively at the management and organization of these programs. The data Commission members reviewed, interviews they conducted, testimony they heard, and reports they read identified numerous discrete items in need of improvement. Many of these are addressed in recommendations that appear throughout this Report (see *summary of recommendations, Appendix 1*).

The net effect of these recommendations would be a significant reorganizing of environmental agencies and programs in Massachusetts. In light of the relatively brief existence of the Secretariat, one might ask, "Is a reorganization of the Commonwealth's environmental programs really necessary?" It has been suggested that equal or better progress can be made through more effective implementation of the existing structure.

More of the same - greater responsiveness, stronger leadership, an expanded staff, increased funds - may well be part of the answer. Indeed, among the Commission's recommendations are several that pertain to these suggestions. But the Commission

feels strongly that a new approach to environmental management accompanied by a serious reorganization effort is in order. The fundamental problem, in the view of the authors of this Report, is that the environmental field and our perception of it have changed dramatically over the past decade. The mission of the environmental agencies has widened while the citizenry's concerns have deepened. It is these new directions that motivated the creation of the Commission and necessitate the changes recommended in this Report.

To fully describe the transformation of the environmental field is beyond the scope of our work. However, two significant themes have been sounded again and again:

- The Commonwealth must place more emphasis on *prevention of environmental harms and risks* rather than on after-the-fact amelioration; and
- The Commonwealth must play a strong, forward-looking role in the *management of growth*, integrating the goals of sustainable development and long-term environmental enhancement.

From After-the-Fact Approaches to Prevention

In the early 1970s, the prevailing approach to environmental contaminants was to collect them and dispose of them in appropriate places. "Put litter in its place" was, for many Americans, their introduction to environmental consciousness.

This disposal paradigm formed the basis of our early attempts to regulate hazardous waste. The core idea of the federal Resource Conservation and Recovery Act (RCRA) of 1976 was "cradle to grave" tracking of hazardous wastes. For contamination that had already occurred or would occur in the future, Congress enacted the Comprehensive Emergency Response, Compensation and Liability Act in 1980, creating a Superfund to clean up existing problems and safely dispose of their chemical causes.

These laws continue to form the foundation of the country's attempt to deal with hazardous waste. The states, including Massachusetts, continue to play a cooperative role in their implementation (in the case of RCRA) or have created similar devices at the state level (e.g., Massachusetts' own Superfund statute, M.G.L. c. 21E). But even in the brief time since these laws were enacted, even as we continue to rely on after-the-fact collection

and disposal approaches, a shift in emphasis is occurring. This shift is now affecting, and will continue to affect, how government does the job of protecting public health, safety and the environment from hazardous substances. This shift can be understood by examining both federal and state legislative developments of the recent past.

In 1984, only eight years after enacting RCRA, Congress amended it substantially. Among the new provisions was one requiring generators of hazardous waste to have waste minimization plans. Congress had come to the realization that it was not enough to keep track of where hazardous wastes were going: it was necessary to reduce the total volume produced.

A similar realization is dawning in Massachusetts. For example, consider the controversy that attends the use of incinerators for the disposal of solid waste both here and in other states. Initially, they were viewed as an alternative to landfills that neither required as much land nor presented the risk of groundwater contamination, and that would produce side benefits in the form of energy generation. However, citizens have voiced concerns about airborne pollutants given off by such facilities, as well as where and how to safely dispose of the potentially toxic ash left as a residue of trash combustion. Questions have also arisen about the effect of incinerators on efforts to recycle and reuse waste materials. Once contracts are signed to incinerate waste, there is greater incentive to dispose of it through combustion, rather than through markets for recycled materials.

Except for substances that break down completely into benign components, there is no entirely satisfactory disposal solution: everything goes somewhere.

Proposals are pending in the legislature that would move Massachusetts away from an emphasis on disposal and toward prevention of harms and minimization of the use of materials that pose hazards to people and the natural environment. These proposals include provisions such as: a requirement that companies implement source reduction plans; creation of loans, grants, and technical assistance programs to help companies reduce their use of hazardous substances; and establishment of research and development programs in conjunction with the Commonwealth's universities. The introduction of such bills indicates an unmistakable trend toward preventing environmental problems by minimizing their causes.

The emerging shift in emphasis from end-of-the-pipe control to prevention is the basis for several of the Commission's principal recommendations, including the new Office of Policy and Planning, the reform of the Department of Environmental Quality Engineering, and the creation of a Department of Waste Reduction and Management.

From Unbalanced Growth to Sustainable Development

A similar evolution has occurred in our thinking about issues of growth. This evolution has implications for how the Commonwealth's environmental agencies are organized and managed.

In 1974, when the current structure of the Executive Office of Environmental Affairs (EOEA) was created, Massachusetts was in many ways a different state than it is today.

- "Too much growth too fast" was not a major concern in Massachusetts. The state's unemployment rate was 7.2%, more than twice what it is today. Even that figure masked a more serious situation in many of our older cities, from which many manufacturing jobs had departed for the Sunbelt and where unemployment was at double digit levels.
- Although significant development had taken place along the Route 128 corridor, the high-tech boom had not yet accelerated that development and pushed it to Route 495 and beyond.
- Relationships among federal, state, and local governments were very different. More financial help was available from Washington, from revenue sharing to construction grants for pollution control facilities. Proposition 2 1/2 had not yet reduced reliance on the local property tax or required the state to fund its mandates to municipalities.
- The dangers posed by hazardous chemicals to land and water were not well understood. No one talked about "hazardous waste" because the term was not yet in common usage; the discovery of dangerous chemicals at

Love Canal, which focused the nation's attention on this issue, would not take place until 1978.

- The surge in real estate prices and concomitant building boom had not yet taken place.

While these developments have affected every part of Massachusetts, no area has experienced so much change so fast as Cape Cod. The Cape's relatively small size combined with its attractiveness and delicate ecological balance make our stewardship of it both difficult and critically important. Cape Cod is unique but the issues that Massachusetts' government and citizens are facing there are the same ones that other regions of the state are also facing or will be facing in the future. These issues include:

- how to protect vulnerable watersheds from encroachment?
- how to prevent traffic volume and congestion from spoiling the quality of life?
- how to preserve the historic and cultural characteristics of communities?
- how (and where) to dispose of the things that people throw away?
- how to secure a stable economic base for the area's workers and families?
- how to encourage communities in a region to work together in their mutual interests?

The Commission's preliminary recommendation that a growth moratorium be given serious consideration had the desired effect of stimulating discussion of the Cape's future. An overwhelming citizen response shows that the Commission correctly judged the depth of public concern for a troubled area of the Commonwealth.

These questions, which are especially acute for Cape Cod, are faced by all regions of the state, from the North Shore to the Pioneer Valley, from Boston's western suburbs to the Berkshires.

The issue that underlies all of these questions is *not* a zero sum trade-off between growth and no-growth. Rather, it is the challenge to achieve within the Commonwealth what the World Com-

mission on Environment and Development called "sustainable development." In their words:

"...environmental policies are directed at the symptoms of harmful growth; these policies have brought progress and rewards and must be continued and strengthened. But that will not be enough. What is required is a new approach...a type of development that integrates production with resource conservation and enhancement, and that links both to the provision for all of an adequate livelihood base and equitable access to resources."

-- Our Common Future, pp. 39-40

The challenge for the Commonwealth is clear. Unless we set policies and manage institutions to foster growth that is sustainable, we will squander our natural endowment and make further growth impossible.

Our changing views of growth and growth management motivated several of the Commission's principal recommendations, including improving the coordination of the secretariats that deal with environmental issues, the consolidation of the Secretariat's three land management agencies, and the establishment of a Council on Environmental Quality.

The Commission's Principal Recommendations

The recommendations summarized below are discussed more fully in Parts II - V of the Report.

- The Commonwealth's environmental policy should be reflected in all of the activities of state government. The Governor's Office should see to it that sound environmental principles are factored into the decisions and projects of all of the state's agencies.
- The Executive Office of Environmental Affairs should serve as the chief agency for environmental policy-setting in state government. To that end, it should be strengthened through the addition of a new Office of Policy and Planning to be headed by a new Undersecretary.
- The Office of Policy and Planning should begin immediately to develop a comprehensive, rolling, four-year Environmental Master Plan for Massachusetts.

- The Commonwealth's waste management activities should be redefined by statute to establish the reduction of waste generation as the primary focus of its regulatory efforts.
- The Department of Environmental Quality Engineering should continue as the state's primary environmental regulatory agency. However, it should be substantially overhauled with a new emphasis on prevention and a new organizational structure. It should be renamed the Department of Environmental Protection.
- A new Department of Waste Reduction and Management should be created which will emphasize innovative, non-regulatory methods of changing environmental management practices.
- A new Department of Natural Resources Conservation should be created through the consolidation of the current Department of Environmental Management; Department of Fisheries, Wildlife, and Environmental Law Enforcement; and Metropolitan District Commission.
- The resources devoted to environmental protection in the Commonwealth should increase substantially to meet current and projected needs, and a variety of new tools should be established to generate the necessary increases.
- The mechanisms by which EOEA receives advice on and analysis of matters within its jurisdiction, and through which it communicates to its several audiences, should be strengthened. To that end, Policy Advisory Boards and a Council on Environmental Quality should be created.

A complete listing of the Commission's Recommendations is found in Appendix 1.

II. New Directions in Policy

"The people shall have the right to clean air and water, freedom from excessive and unnecessary noise, and the natural, scenic, historic, and esthetic qualities of their environment; and the protection of the people in their right to the conservation, development and utilization of the agricultural, mineral, forest, water, air and other natural resources is hereby declared to be a public purpose..."

-- Massachusetts Constitution, Article 97

"There shall be an executive office of environmental affairs...which shall be under the supervision of a secretary...Said secretary shall serve at the pleasure of the governor...The office and its appropriate departments and divisions shall carry out the state environmental policy..."

-- Massachusetts General Laws, chapter 21A, section 1,2

The Commonwealth's Constitution and laws regarding environmental policy are straightforward. They establish the public's rights to environmental protection and outline the mechanisms to safeguard these rights.

Translating the commands of law into reality has proven somewhat more difficult. This difficulty results in part from the underlying ambiguity of the task: if it is a public purpose to protect the people's rights to conservation and development and utilization of our natural resources, what is state policy to be when these goals are in conflict? If certain facilities that detract from the aesthetic qualities of the environment in their immediate vicinity (such as landfills or sewage treatment plants) must nevertheless be sited, where are they to go? When valid public purposes such as affordable housing or community development compete with environmental protection, how is the competition to be resolved?

The Executive Office of Environmental Affairs (EOEA) should be a key focal point for resolving such conflicts. Unfortunately, the Commission found widespread dissatisfaction with how that office has, in fact, played this role. According to many sources, the Executive Office has been hampered in its efforts because it:

- lacks a comprehensive view of and strategy for the Commonwealth's environment;
- does not carry out planning functions to guide the state's future environmental policies;
- does not manage the Secretariat's agencies to effectively administer the environmental agenda;
- is not viewed by others in the state Administration, by the Legislature or by the public as playing a leadership role in the development or advocacy of the Commonwealth's environmental policy; and
- loses too many disputes within the state Administration when environmental policy conflicts with other state policies or goals.

The Commission recommends that several significant changes be made to the Executive Office's function, structure, and management to improve its performance.

How Should EOEA Work?

For the Executive Office to be effective in carrying out its environmental protection mandate, it must do three related things.

First, the Office must establish environmental *goals* reflecting a comprehensive strategy for the environment in the future and plan carefully for the attainment of these goals. The kind of activities associated with this major EOEA function include: baseline data gathering, data analysis and prediction, estimation and/or measurement of costs and benefits, goal-setting, strategic planning and establishing timetables for the achievement of goals.

Second, environmental *policies* for the present must be developed and their implementation managed. Activities associated with policy development include: identifying problems and opportunities; conceiving and advocating solutions, and devising realistic strategies and tactics to achieve them.

The implementation function includes directing and coordinating agencies within the Secretariat; working with other secretariats to ensure consistency in implementing environmen-

tal policies throughout state government; allocating resources; performing oversight and evaluation of progress; adjusting policy as required by changing circumstances; and public advocacy of environmental protection.

Third, future goals must be *integrated* with present work on policy implementation. These functions, which involve differing time horizons, must be carried on simultaneously and coordinated with each other. Short-term "crisis management" is unavoidably part of the job of the Executive Office, but unless adequate attention is paid to the future, the Commonwealth will not be prepared for many predictable and avoidable problems.

The opposite danger is equally to be avoided. An overemphasis on long-term planning, while neglecting the need to act on current pressing concerns, will result in the Executive Office being irrelevant to the debates and conflicts that will shape the future.

Finally, it is not enough to be actively working on both present problems and future plans: the two must be made to relate to each other. An effective secretariat will use its role in current issues to leverage its future agenda, and will use that long-term agenda to advance its position on issues it faces today.

The Executive Office does not function in this manner today. The Senate Ways and Means Committee's "Agenda '90" report summarized its performance as follows:

"Instead of systematically overseeing the implementation of the environmental protection agenda, the Office of the Secretary tends to respond to crises; to function as a clearinghouse, or to address itself to ad hoc projects. Meanwhile, centralized functions such as uniform grants management, planning of automated systems, development of environmental standards, or setting and monitoring agency performance goals tend to be ignored."

--The Environmental Challenge, p. 14

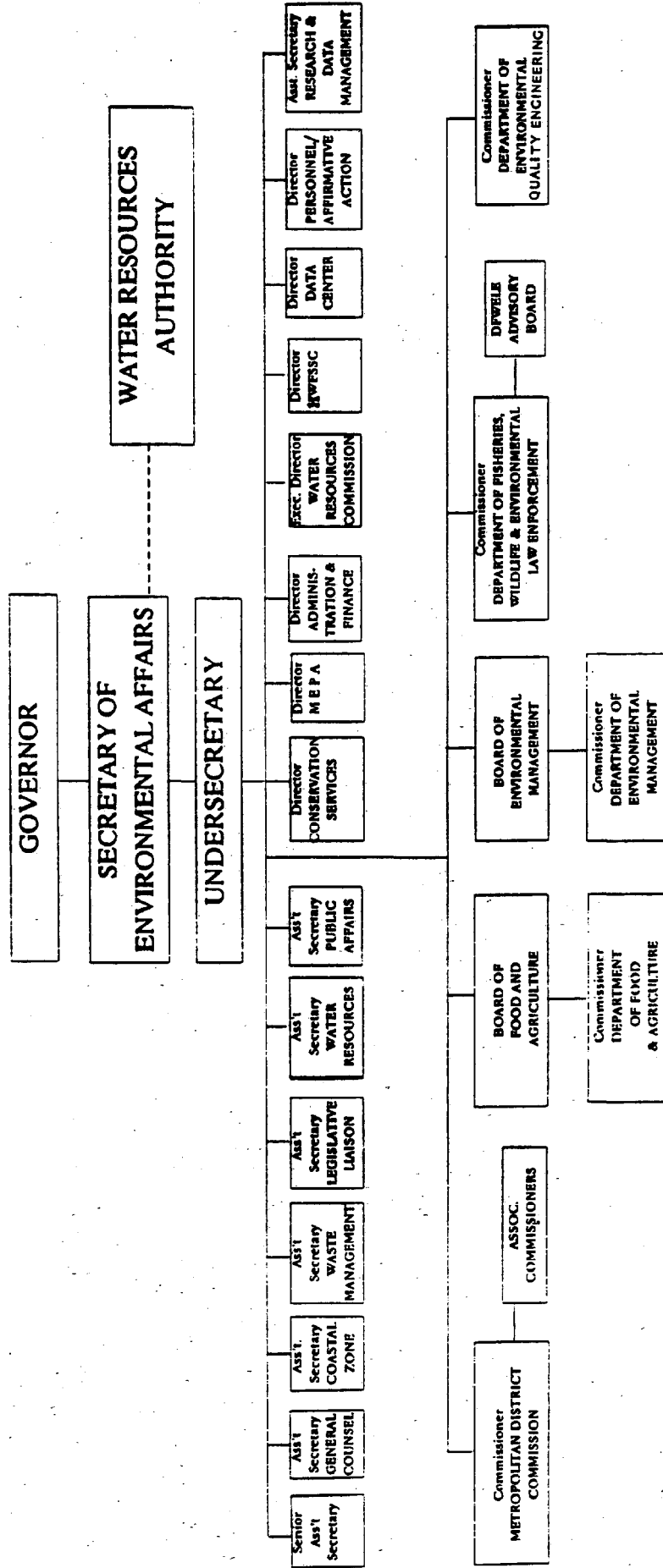
Barriers to Effectiveness

The Commission's investigations have identified several broad classes of existing impediments to the successful functioning of the Executive Office. Taken together, they have made it impossible for ECEA to play its proper leadership role in the Commonwealth's environmental policy.

- **Absence of Overall Plan and Vision.** Although Massachusetts has many accomplishments to point to in its environmental programs (the nonpartisan Fund for Renewable Energy and the Environment rated the state's environmental programs as tied with Wisconsin's as the best in the United States), no overall plan or vision underlies the Secretariat's work.
- **Inefficient Organizational Structure Within the Executive Office.** *Exhibit A* (next page) depicts the organizational structure of the Secretary's Office as it stood in late 1987 when the Commission's work began. No fewer than twenty two people reported, in theory at least, to the Secretary of Environmental Affairs. So wide a span of control prevents any real control, coordination, or accountability from taking place and prevents the Secretary from spending his or her time on advocacy.
- **Inadequate Formal Powers of the Secretary.** Many of the tools of control one would expect a Secretary to wield are informal or persuasive rather than mandatory in nature. Ambiguous reporting relationships, however, make it difficult to effectively direct the work of the Secretariat. Currently, for example, the Secretary's supervisory authority over the departments' Commissioners is not clearly defined by statute.
- **Failure to Include the Environmental Secretariat's Agenda in Administration-wide Policy-making.** The policy-making institutions of the state Administration outside of the Secretariat do not always adequately reflect or support environmental values or conform with the state's environmental policies. This contributes to the perception (and at times the reality) that the environment is disadvantaged with respect to competing interests, or that sufficient efforts are not made to

EXHIBIT A

ORGANIZATION OF THE EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS



harmonize competing concerns in a way that protects the environment.

- **Inadequate Resources.** No one the Commission interviewed contended that enough money or personnel have been available to deal with our full and expanding array of environmental problems. The problems cited above are compounded by the limited staffing of most functions within the Executive Office, most notably policy planning and coordination and support staff.

Prescriptions for Change

To break down these barriers to an effective Secretariat and to improve its overall performance, the Commission offers fourteen recommendations.

II-1. Chapter 21A should be amended to create a new Office of Policy and Planning in the Secretary's Office, under the leadership of a new statutory Undersecretary.

This office should:

- provide coordinated, cross-media policy planning and implementation assessment for the Secretariat's agenda;
- serve as a clearinghouse for research, risk assessment, programmatic data gathering and program management, and cross-impact analysis for all program areas;
- assure the capability of the Secretary to provide strong leadership in regulatory and standard-setting matters throughout the Secretariat;
- underscore Secretariat-wide attention to the choice of environmental strategies (such as prevention and source reduction) that will most effectively and economically implement the environmental mandate;
- provide analysis of the economic impacts and benefits of policy and project decisions;
- carry out long range policy and planning functions for land protection and acquisition;
- develop a program to identify, protect and make available to the public the historic and cultural

resources of the Commonwealth; (See recommendation II-6)

- provide policy-sensitive budget guidance for the Office of Resources and Systems.; (See recommendation II-6)
- develop and articulate to the Legislature executive branch environmental initiatives; and
- manage the Secretariat's relations with other parts of state government on issues with special significance for environmental goals and values.

The existing Office of Research, Testing, and Standards should be strengthened to become an integral part of the policy-making process. Staff should be provided to ensure that appropriate scientific and technical standards are employed consistently across the environmental agencies during policy implementation. (*See also Part III.*)

The importance of information technology in the work of this new Office - indeed, throughout the Secretariat - cannot be overstated. Environmental policy makers and regulators cannot hope to make consistently valid decisions without the aid of current information management tools and the expertise to apply them. The EOEA Information Technology Task Force noted in its 1987 report that the "rapid growth in environmental responsibilities has created a growing need for computer-based information processing. Without computer capacity, the complexity of managing the environment may soon become impossible."

According to the report, the Secretariat needs to more than double its information processing capacity over the next two years to meet urgent and growing environmental responsibilities. To expand computerization efficiently, it must create a network of interconnected processors (minicomputers) earmarked with specific functions, such as database or mapping, that will provide the background information necessary to make prudent decisions.

All of this information should be used to shape the environmental agenda to address evolving social, environmental and economic conditions through specific plans for action - plans that focus on prevention, conservation, and action on issues before they become crises.

II-2. The Office of Policy and Planning should immediately begin the process of developing a comprehensive, rolling four-year Environmental Master Plan for Massachusetts.

This plan should become the fundamental tool for goal-setting, policymaking, and performance evaluation. In developing it, the policy analysts should look ahead to identify long-term socioeconomic and environmental trends that will have a direct bearing on protection and management of Massachusetts' natural resources. This should not be merely an internal exercise. Vigorous participation by staff from the operating agencies should be required and input from members of the public at large should be encouraged.

The focus on natural resources in the Master Plan should not overshadow the need to protect the historic and cultural landscape of our communities. The Office of the Secretary should identify important elements of the physical and cultural landscape and develop strategies to protect them, working in conjunction with cities and towns.

On a more immediate level, the Secretariat should take action to preserve and maintain the hundreds of historic buildings and sites on land that it manages. While Massachusetts has the seventh largest park system in the country, we do not have an historic sites system or appropriate staff to provide responsible maintenance of historic resources. The Master Plan should include a program to identify, protect and make available to the public these resources already owned by the state.

II-3. The Executive Office should prepare an annual State of the Environment Report, as required by M.G.L. c. 21A s. 3, which should include:

- an evaluation of the status of the natural resources and environmental quality of the Commonwealth;
- an outline of the goals and objectives of the Secretariat based on the Environmental Master Plan, with an analysis of progress in the preceding year and targets for achievement in the coming year;
- the current organization and activities of the Office as reported by the various departments and divisions within the Secretariat;

- a listing of key administrative units, officers and employees, and of the locations at which, and the methods whereby, the public can receive information or make requests;
- recommendations for short-term priority actions to protect the environmental quality of the Commonwealth and to conserve and preserve the natural resources of the Commonwealth, consistent with the Master Plan;
- and such other matters as may be deemed appropriate.

II-4. The Executive Office of Environmental Affairs should be reorganized along the lines of Exhibit B (next page).

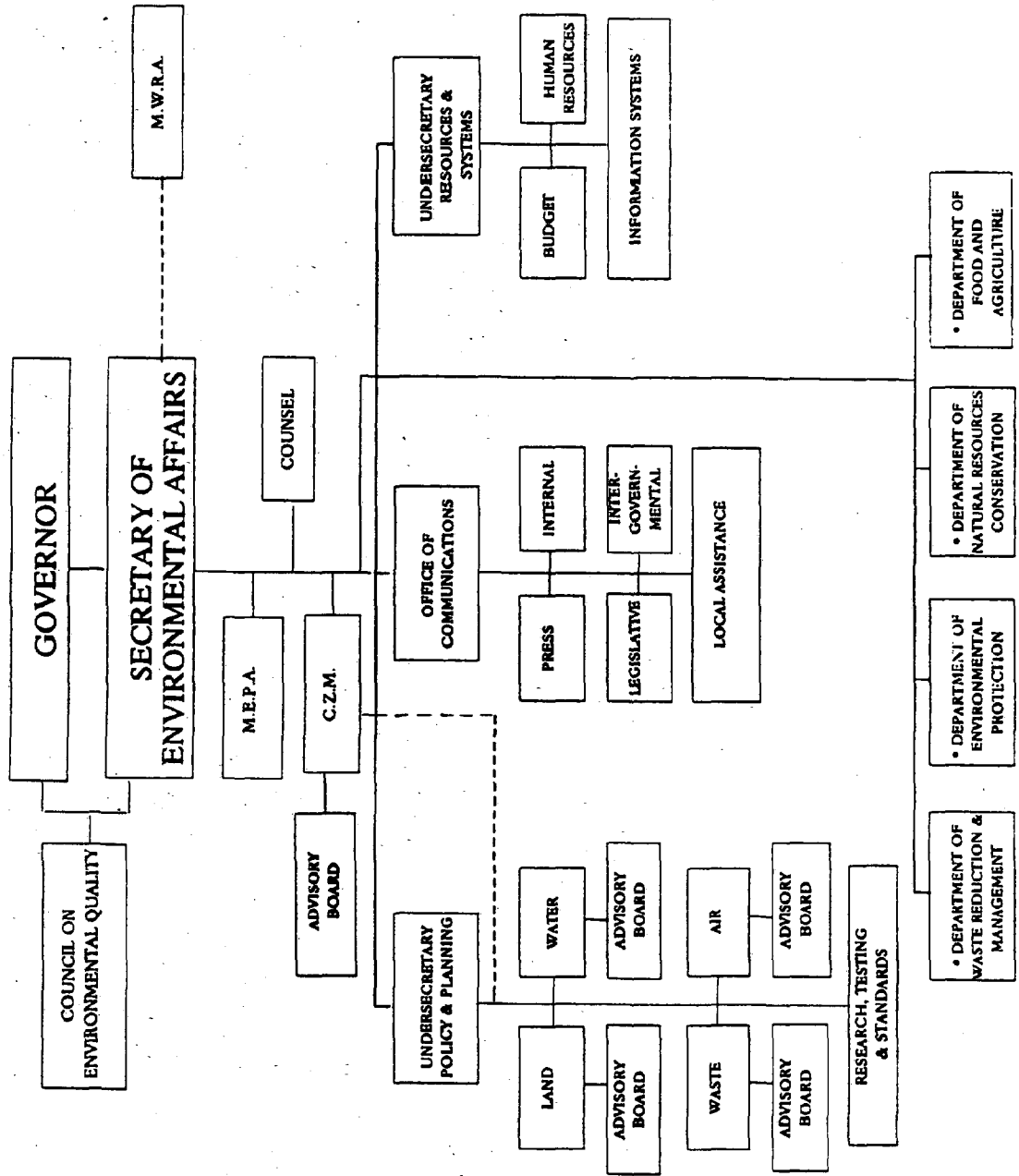
The recommended organizational structure would have several advantages. It would cut in half the number of persons who report directly to the Secretary. It would clearly assign responsibility for critical major functions within the Executive Office itself. Both of these changes should help the Secretary exercise more effective leadership in working with the agencies to develop and implement policy throughout the Secretariat. The changes should also allow the Secretary to spend most of his or her time as chief advocate and spokesperson for the environmental agenda within the Administration, in the Legislature, and in broader forums including regional and national environmental organizations.

The proposed structure would continue the current direct reporting relationships for the Directors of the Coastal Zone Management (CZM) Program and the Massachusetts Environmental Policy Act (MEPA) Program. While it was argued that one or both of these programs might more appropriately report to the Undersecretary for Policy and Planning, the Commission concluded that CZM, as a major federally-funded program, should continue to report to the Secretary.

Likewise, the Commission strongly endorses the Commonwealth's MEPA program, and felt the wrong signal would be sent by lowering its stature within the Secretariat. In fact, the Commission recommends strengthening the MEPA process further as follows:

EXHIBIT B

RECOMMENDED ORGANIZATION OF THE EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS



* Existing Departmental Advisory Boards remain unchanged, except as described in Section V: Public Participation.

II-5. The Massachusetts Environmental Policy Act should be strengthened.

The Commission supports the amendments filed by the Governor which would provide for:

- a prohibition on construction starts subject to the Act until MEPA review is complete;
- the ability of local communities to refer a project for MEPA review and for citizens to appeal the Secretary's decision that an environmental impact report was unnecessary; and
- the availability of civil penalties in a Superior Court action for violation of any provision of the Act and decisions rendered thereunder.

There is a strong concern on the part of the Commission that MEPA should be more prohibitive, to enable the Secretary to reject certain construction projects. Therefore, in addition to supporting the above provisions, the Commission recommends that the law be amended so that the Secretary may:

- review all environmental aspects of a project, once jurisdiction is established; and
- reject or condition a project for environmental reasons, in accordance with substantive standards enacted by the Legislature.

II-6. There should be within the Office of the Secretary an Office of Resources and Systems, under the direction of the existing statutory Undersecretary.

The duties of the office should include:

- management of the budget process for all agencies so that the cost of environmental programs can be tracked, results tabulated, and financial needs for programs justified and assessed for the Legislature;
- management of personnel;
- oversight and coordination of grants;
- management of information systems, including purchasing and maintenance of computer systems.

The objective of the office is to assure the capability for focused leadership in all resource allocation issues that touch the environmental agenda. Budget initiatives should correspond to

goals and priorities identified in the Environmental Master Plan. Working with the Executive Office of Administration and Finance, the Natural Resources and the Ways and Means Committees of the Legislature, and the management and budget staffs of its own departments, the Office of Resources and Systems should take the lead for the Secretariat in producing a targeted budget to advance key environmental goals.

II-7. An Office of Communications, including a Local Assistance Unit, should be established in the Secretary's office to coordinate internal and external communications functions throughout the Secretariat.

It is inevitable, in an enterprise of the magnitude of the Environmental Secretariat, that, without a targeted program for communications, management will function inefficiently and sometimes break down altogether. The successful functioning of the Secretariat is based on its ability to communicate internally and externally.

Internal communication has two major goals: control and coordination. Control is necessary to provide the organization's leadership with the ability to carry out Secretariat-wide policies through the rank and file. Coordination insures that the disparate parts of the organization work together rather than at cross purposes or in a vacuum. All of the recommendations in this section of the report, as well as those in Part III, should enhance the internal control and coordination of the Secretariat and its agencies. The purpose of an Office of Communications is to provide a focal point with staff responsible for specific tasks.

For example, communication should be coordinated within and among departments to keep employees apprised of the Secretariat's overall mission. The role of each department in meeting Secretariat-wide goals should be clearly articulated. Working through the Commissioners, the respective roles of regional and central offices in meeting departmental goals should be communicated clearly and often.

The effectiveness of the Secretariat is equally dependent upon its ability to communicate with the outside world. Federal-state relations should be strengthened to advance the interests of the Commonwealth in the environmental agenda set for the states through federal legislation. The Secretariat should be an active participant in forums such as the National Governors' Associa-

tion and the New England Governors' Conference, where interstate environmental issues, for example, acid rain, are addressed.

Finally, the manner in which the Secretariat communicates with the public will affect its ability to meet its goals and objectives. Many of the crises affecting the agencies appear to occur because of a lack of information and understanding, and could be prevented or mitigated by better outreach. Common concerns heard by the Commission about the Secretariat's public relations include: inadequate information on the availability of state programs; lack of coordination among agencies where more than one is involved in a project or application procedure; and inconsistency in answers to questions depending on the agency, region, or personnel consulted.

The Local Assistance Unit of the proposed Office of Communication should spearhead an improved program for local relations. It should provide technical assistance, program information, educational materials, grants information, and an ombudsman service. Periodically, surveys should be conducted to determine what environmental issues concern the public and the public perception of agency performance in meeting goals and objectives.

Public participation in the affairs of the Secretariat through boards, commissions, and committees is also a channel of communication which should be continued and strengthened. This topic is discussed in detail in Part V of this report.

II-8. The Executive Office of Environmental Affairs, in cooperation with the Department of Education, should establish an environmental education program and encourage its integration into curricula throughout the Commonwealth's public school system.

Another aspect of communication from the Secretariat to the broader public is environmental education. Because of the relative newness of the environmental field, and our quickly changing knowledge of it, a significant opportunity exists to impart useful information to students.

An environmental education committee should be formed with representation from the Environmental Secretariat's agencies, the Department of Education, industry, and private, non-profit, environmental education organizations. The committee should: evaluate existing environmental education programs

being offered in public schools; develop environmental education objectives for the 1990s; and develop curriculum materials, teacher training programs, and environmental education guidelines for teacher certification. The programs could be prepared and/or disseminated by an educational institution or through an environmental education organization. Active participation in program development as well as matching funds should be sought from the private sector.

II-9. General professional and experience qualifications should be set forth as guidelines for the appointment of the Secretary, Undersecretaries and Commissioners:

The Secretary should be a person whose expertise or experience in the management and administration of public programs would assure the leadership and advocacy essential for full representation of the environmental agenda in all councils of state government.

The Undersecretary for Policy and Planning should be a person with demonstrated skills and experience in development of policies and the ability to direct and coordinate strategic resource planning to implement environmental policies on behalf of the Secretary.

The Undersecretary for Resources and Systems should be a person with demonstrated skills and experience to manage the administrative affairs of the Secretariat as directed by the Secretary.

Each Commissioner should be a person with demonstrated skills and experience in a field germane to the department's mandate and a demonstrated commitment to carry out the department's mission.

II-10. All central offices of the Secretariat's agencies, along with the Executive Office itself, should be physically consolidated in a single building in Boston.

Currently, the agencies of the Secretariat have 10 different addresses in Boston. This dispersion is an impediment to the effective management and coordination of the agencies by the Secretary. It detracts from the development of a sense of common purpose and identity among the Secretariat's staff and renders the employees, information and services of the Secretariat less accessible to the public.

The consolidation of all Boston-based environmental offices in one building would address these issues. From the perspective of the agencies, a single location would reinforce the sense of teamwork that is basic to the pursuit of a common mission. It would enhance the ability of the Secretary to achieve coordinated management of multiple departments, programs, and personnel, and to maintain the complex information processing network necessary to meet its environmental responsibilities.

From the public's perspective, consolidated office space would reduce the effort presently required for citizens to participate in the agencies' work. It would create a focal point for access to environmental services where information, educational materials, personnel, and meeting space would be available for programs and projects with which the public is involved.

II-11. The accountability of the Commissioners to the Secretary should be reinforced by amending Chapter 21A section 7 to read "each Commissioner shall, under the direction of the Secretary, perform the necessary and appropriate functions to carry out the mission of the department."

As chief executive officer of the environmental Secretariat, the Secretary is charged with carrying out its responsibilities, including environmental advocacy, budget development, and setting and implementing goals and priorities. In order to fulfill these responsibilities, the Secretary must have the authority to coordinate all activities and programs of the departments. In doing so it will at times be necessary to resolve administrative and jurisdictional conflicts between agencies and to coordinate and improve program activities involving two or more agencies or offices. The Master Planning process (*see recommendation II-2*) provides an opportunity for Commissioners and the Secretary to integrate perspectives in shaping the agenda of the Secretariat. However, the recommended change in the statute would clarify the appropriate relationship between the top levels of the Secretariat when conflict resolution is necessary.

If adopted, the foregoing recommendations will result in a much stronger, more focused, and more cohesive Executive Office of Environmental Affairs. But in order to improve environmental policy-making and implementation, other changes must also occur that reach beyond the Secretariat itself.

Governors are afforded considerable latitude in the organization of their offices. Every Governor comes to office with different ideas about how best to gather and process information, coordinate the work of the many secretariats and agencies, mediate disputes, and make and implement decisions. The current Governor has used one part of his office, the Governor's Office of Economic Development (GOED), to coordinate the work of the Environmental, Communities and Development, Economic, Energy, Labor, and Transportation Secretariats. These Secretaries meet with the Director of GOED to constitute the Governor's Development Cabinet. (A Governor's Office of Human Resources performs a similar function for certain other secretariats, chiefly Human Services and Elder Affairs.)

The Commission heard repeatedly that GOED places too little weight on environmental values when striking a balance with its other concerns. The result, according to these reports, has been approval for development projects that should have been modified or rejected. This perception appears widespread among the Commonwealth's environmental community, notwithstanding their acknowledgment of Massachusetts' many environmental achievements in recent years.

The Commission offers the following two recommendations in an attempt to redress the policy balance within GOED and the administration as a whole:

II-12. The Governor's Office of Economic Development should be renamed The Governor's Office of Economic Development and Environmental Protection. In addition, the Commission urges the Governor to consider adding a senior staff person, separate from this office, to better focus on environmental protection issues.

Improved mechanisms for integration of environmental protection goals into economic development goals are also necessary in other areas of executive branch decision making. Intersecretariat conflicts that may arise in the implementation of policies should be identified, fully discussed and resolved in advance, with criteria and procedures incorporated into the appropriate regulations or other documents. All affected agencies should be fully aware of policy details and prepared to carry them out. To this end, we recommend the following procedure.

II-13. Representatives of the new Office of Policy and Planning should participate in the development of, and provide consistency review for, all major policies, regulations, programs, and legislative proposals from secretariats likely to be affected by environmental policies.

Of particular importance are policies, regulations, programs and legislative proposals related to transportation, housing and economic development. Similarly, representatives from those secretariats should participate fully in policy and planning activities in environmental affairs.

The preceding discussion and recommendations have concentrated on matters of administration, structure, and process. This should not be surprising, since most of the Commission's work has been devoted to these issues. During the course of its deliberations, however, several matters of a different nature were considered about which the Commission reached a consensus. The final recommendation of this Chapter reflects that consensus.

II-14. The Commission urges the Governor to issue a three-part Executive Order with the following directives:

1. Projects and programs of all agencies should be examined to identify opportunities for promoting environmental benefits.

For instance, clear criteria should exist for including environmental components such as adequate open space in housing projects.

2. Grant programs, such as for housing, transportation, and economic development, should be conditioned on municipal compliance with relevant state environmental policies.

The Commission endorses the concept of Executive Order 215, through which state grant programs, most often including environmental grant programs, are made vehicles for encouraging municipal compliance with state housing policies.

In like manner, for example, grants that have an effect on municipal water use, including housing and transportation grants, should be conditioned on a determination by the Secretary of Environmental Affairs that the community is taking all reasonable measures to comply with the state's current Water Supply Policy Statement.

3. The protection of critical natural resource lands - including wetlands, flood plains, aquifers, beaches, dunes, estuaries, prime farm lands and others - should be reaffirmed. It is essential to carry forward the policy of preventing problems from developing.

Therefore:

- The Secretary should be directed to prepare criteria and guidelines, based on such factors as size and sensitivity, defining those portions of these areas that are particularly critical and the manner by which they will be identified.
- State investments that alter such defined critical areas should be prohibited unless there is no feasible and prudent alternative.
- The term "alternative" should be clarified to include reasonable compromises in the goals of the state investment such as changes in road length and width.

Massachusetts has adopted specific, carefully limited regulatory programs for protecting a wide variety of critical natural resources. In reality, because these programs must constantly balance environmental protection with private property rights, there is much slippage between defining a resource for protection and achieving that protection, not even considering enforcement problems.

However, just as the Commonwealth can define far stricter controls on the private use of public lands unconstrained by the need to balance private property rights, (for example, M.G.L. c. 91), the Commonwealth can and should define for itself a higher standard of conduct in the use of critical lands than may be required of private parties in current regulatory programs. That standard of conduct must be clearly defined and consistently followed.

III. Strengthening the Operating Agencies

Critical as it is to improve the capacity and performance of the Executive Office, strengthening the line or operating agencies may be even more important.

With relatively few exceptions, the Executive Office does not issue permits, inspect pollution sources, acquire land, maintain parks, award grants, or perform the myriad of other direct regulatory and protective functions necessary to secure the people's right to a clean environment. Again, with few exceptions, it is to one of the line agencies that citizens, municipalities, and businesses turn for action, service, assistance, information, or relief.

Among the recommendations that the Commission was asked to provide were:

"...appropriate roles for each of the Environmental Affairs agencies and appropriate management structures to enable them to meet their environmental protection responsibilities efficiently and effectively without duplication of effort, internal and interagency conflicts, or conflicts between environmental agencies and other agencies of state government, such as the Department of Public Health."

-- The Environmental Challenge, p. 20

The Commission recommends a restructuring of the five existing departments, to bring about a more focused and effective execution of the state's environmental agenda. Coordination among the Departments should be achieved as a result of the strengthened leadership tools recommended for the Secretary in Part II. The proposed Departmental structure includes:

- a **Department of Environmental Protection**, the renamed Department of Environmental Quality Engineering, which would have as its priority the promotion of environmental protection and the avoidance of environmental degradation - a significant reorientation from its historical focus on cleanup and end-of-the-pipe solutions;
- a new **Department of Waste Reduction and Management**, incorporating existing waste management programs from DEQE and a new source

reduction program, to act as a proponent (non-regulatory) agency for new approaches to achieving a safe environment;

- a new **Department of Natural Resources Conservation**, formed by consolidating the existing functions of the Department of Environmental Management, the Department of Fisheries, Wildlife and Environmental Law Enforcement, and the Metropolitan District Commission; and
- the existing **Department of Food and Agriculture**, with modified responsibilities in management of pesticides.

All functions of state environmental agencies related to waste management and regulation should operate under a legislative mandate and Executive policy that establishes reduction of waste generation as the primary focus and safe, secure disposal of waste as a necessary but least preferred strategy.

These recommendations are discussed below.

The Department of Environmental Protection: A new name, a new beginning

Before turning to recommendations for DEQE, the Commission wishes to note that positive change is underway at the agency. An energetic new Commissioner has recently restructured the Divisions and assembled a new management team. It is the Commission's hope that its recommendations will be put into effect and will further the progress that is already evident.

The Department of Environmental Quality Engineering (DEQE) was created in the 1974 reorganization of the state's environmental agencies to unite the regulatory functions of the Department of Natural Resources (water pollution control), the Department of Public Health (air pollution and solid waste regulation) and the Department of Public Works (waterways management). In the years since the agency's creation, its scope of responsibilities has broadened enormously, most notably to include the regulation of hazardous wastes and their disposal sites. DEQE has the largest full-time staff and capital budget in the Secretariat and has an operating budget second only to that of the MDC.

The agency's responsibilities range across all environmental media - air, land, and water - with a primary focus on protection of public health and the environment from contamination by pollutants. Operating in a climate of scientific and technical uncertainty, with differing opinions of the magnitude of the risks it regulates and the benefits of the measures it seeks to impose, the agency's tasks are among the most difficult in the Secretariat.

The performance of DEQE has been the focus of much concern during the Commission's deliberations. The Commission's examination of DEQE yielded the following conclusions:

- The magnitude and depth of environmental problems the agency must address reflect the extraordinary growth and vitality of economic activity in the state and the resulting pressure on all natural resources. DEQE's mission and strategy for achieving it are not sufficiently clear to keep pace with this expanding agenda.
- A long-standing failure to resolve fundamental management issues continues to plague DEQE. The issues include lack of coordination between the central and regional offices, the lack of a modern information management system, and inadequate middle management capacity, causing too many decisions to be referred to the top levels of the agency.
- A chronic, long-term lack of resources prevents the agency from fulfilling its expanding mandate.
- The data necessary to provide a sound scientific and technical basis for standard-setting generally and for decision-making in individual cases are frequently not available to the agency. This reduces the confidence of the regulated community in the quality of decisions made by the agency.

The recommendations in Part II of this report directly address some of these issues. For example, the Commission has called for the Office of the Secretary to establish a modern information management system throughout the Secretariat to ensure that decisions are made on the basis of the best information available.

The Commission has also called for strengthening of the Office of Research, Testing, and Standards in the Office of the Secretary to ensure that appropriate scientific and technical standards are employed consistently across EOEA agencies. The Agenda '90 Report noted that a deep and fundamental problem

for the Secretariat in implementing the environmental protection mandate is the lack of scientific and technical data or standards necessary to protect the environment from toxic pollutants. Thus, the environmental agencies must rely on contracted outside experts for assessments, evaluations, and recommendations for appropriate response actions. This practice is unnecessarily expensive; more fundamentally, it fosters redundancy and lack of consistency and impedes the development of institutional memory in the gathering and use of information. The strengthened Office of Research, Testing and Standards will reduce the need for reliance on outside data.

III-1. DEQE should be renamed the Department of Environmental Protection (DEP) and should operate under a new mission statement reflective of its unique and critical role in the life of the citizens of the Commonwealth. That mission statement should emphasize the overriding need to focus on the prevention of environmental harms as preferable to after-the-fact cleanup or amelioration.

Renaming the agency and developing a new mission statement are both overdue. The new name will emphasize the agency's fundamental responsibility and communicate it throughout state government and to the public. A new mission statement will identify the Department of Environmental Protection as the primary regulatory agency of the Secretariat and underscore the protection of public health and the environment as its overriding objective.

The Department's standards and regulations should be examined and rewritten where necessary to conform with its mission. Similarly, regulatory procedures such as permit granting should be clarified and streamlined where possible to reduce the disadvantages to economic activity caused by high costs of delays. Both the agency and the regulated community would benefit from more efficient delivery of services and clear signals of intent, making it more likely that DEP would enjoy the support necessary to allow it to function more productively.

The Commission is also recommending the creation of a new agency, the Department of Waste Reduction and Management (DWRM), to work in tandem with DEP on waste issues. (*See recommendation III-11.*)

Improving the Management of the Department of Environmental Quality Engineering

III-2. The relationship between DEQE's central office and its four regional offices should be restructured by strengthening the central office and giving greater policy direction to the regional offices so that decentralized decision-making on individual cases consistently reflects agency policy.

The Commission heard much discussion about the appropriate roles of central or regional offices in the organizational structure. Supporters of greater centralization focus on consistency and complexity. Centralization is seen as ensuring that similar issues will be treated consistently throughout the Commonwealth. Also, centralization is seen as concentrating highly skilled technical personnel so that complex environmental issues can be thoroughly evaluated.

Supporters of increased regionalization highlight timeliness and responsiveness to local conditions, with staff closer to the issues so that they can respond more quickly. Also, regionalization is seen as permitting agency personnel to interpret policy in light of local conditions.

A necessary first step is the strengthening of central policy and operational analysis capacities. Policy analysts can evaluate the effectiveness of particular regulatory strategies, and can assist in setting priorities. Central operational analysts can convert a regulatory strategy into procedures that can be developed to ensure that each regional employee understands the intent of and procedures for the program (See recommendation III-5). The Commission urges that installation of a management information system be expedited to provide central managers with the data to evaluate the decentralized implementation of programs.

Most of the case-related decisions in the agency will be made in the regions. However, in cases that require a high degree of technical expertise, such as initial permitting decisions for novel processes or materials, reliance on the central office will be appropriate. An appeals process should be established to provide review of regional decisions by the central office; however, the agency must guard against the central office becoming a source of unnecessary delay.

In summary, effective regionalization requires a strong central capacity in policy analysis, operational analysis, and management information systems. If these elements exist, a decentralized organization with a clear mission and significant delegation of duties is apparent throughout the agency.

III-3. Responsibility for an ongoing assessment of management and organizational problems and possibilities should be vested in a Deputy Commissioner, in order to increase efficiency and to institutionalize an internal management review process. An immediate need is for increased middle-management capacity, particularly at the regional level.

The lack of continuous oversight and assessment of the effectiveness of program administration also came to the attention of the Commission. As is the case for the Secretariat as a whole, DEQE must do a better job of evaluating its management of the programs within its mandate. Making evaluation a major responsibility of a Deputy Commissioner should ensure that this function receives the high-level attention that it deserves.

In addition, a particular need identified by the Commission is adequate middle management for regional directors. Currently, regional directors must spend a disproportionate amount of their time on administrative concerns rather than on policy and case-related issues. Small, targeted staff increases would remedy this situation.

III-4. An independent, detailed study of compliance with and enforcement of the Department's regulatory mandates should be undertaken to determine how well the Commonwealth's environmental statutes and regulations are, in fact, being implemented.

A wide divergence of opinion exists as to the state of compliance with and enforcement of the Department's mandates. Unfortunately, discussion is limited to opinion because systematic studies of compliance and enforcement across the Department's programs have not been carried out. Without a clearer sense of what is actually happening in the field, intelligent allocation of resources is impossible. Without a comprehensive, fact-based assessment of compliance and enforcement activities, the Commonwealth is left without a key means of evaluating progress and performance by DEQE and the other agencies that play a role in environmental regulation.

For example, the Department reports a 66% drop-off in inspections of air pollution sources during the period 1983-1987 as resources were redeployed to hazardous waste regulation. What effect, if any, has this drop-off in inspections had on compliance and what have been the effects on air quality? Or, to take another example, how has the Department used its relatively recent authority to impose civil penalties? Has the availability and use of this device had a beneficial effect on compliance rates? Anecdotal evidence is not sufficient; the Commonwealth should have the facts.

The Commission recommends that an independent examination of compliance and enforcement efforts be funded and undertaken as soon as possible and that all state agencies cooperate fully in this effort.

III-5. The Department should upgrade the training given to new and junior employees, both to improve their individual performance and to foster more consistent performance throughout the agency.

Improvement in personnel training is imperative. Current training consists almost entirely of informal apprenticeships, where new employees accompany seasoned employees to learn everything from site assessments to permitting. Certainly some form of apprenticeship should continue, but it must be complemented by uniform training to engender a common sense of purpose and ensure consistency of performance. The lack of uniform training is particularly problematic at the regional level where performance may be inconsistent from region to region.

DEQE is about to add hundreds of new employees in an attempt to catch up with the burgeoning work load, particularly in the hazardous waste area. This expansion of the work force provides an opportunity to develop materials and establish formal training programs which, with continued apprenticeships, will make individual employees better able to do their jobs. It should also result in an agency that produces more consistent and predictable services and results. Training of DEQE personnel, as in all agencies of the Secretariat, should provide a sense of how an individual's job fits into the overall Environmental Affairs objective.

Adequate Funding

III-6. Budget resources committed to DEQE must continue to increase in order to match the agency's mandated activities more closely. (See Part IV: "Financing Environmental Protection")

At a time when money is tight at all levels of government, it is not easy to recommend an additional commitment of resources. However, the problems our environmental agencies have experienced in accomplishing their missions cannot all be attributed to poor organizational structure, ill-considered policy choices, or inadequate executive leadership. A lack of resources contributes significantly to unfulfilled mandates.

The Commission realizes that hard budgetary choices have necessarily been made and will continue to be needed in the future. Nevertheless, the Commission urges that spending decisions by both the Executive and Legislative branches recognize the ever-enlarging workload in DEQE that is driven by the demand for services for economic development as well as environmental goals. Furthermore, the Commission notes that the current and anticipated resource gaps are a prime motivating factor for recommending the transition to new waste reduction approaches and to innovative mechanisms to finance environmental protection.

Relationships with Other Agencies

The mandate to the Commission included an investigation of the relationship between environmental agencies and other agencies of state government, such as the Department of Public Health (DPH).

Responsibility for environmental protection and public health protection rests with several agencies, including the Department of Public Health (DPH), Department of Environmental Quality Engineering (DEQE), and the Department of Food and Agriculture (DFA). Specific responsibilities where the potential exists for overlap among these agencies include the following:

DPH: Conduct risk assessments and health studies; set pesticide tolerance levels in foods; determine health standards for

water and air, including indoor air; set asbestos levels in residential settings and determine appropriate removal standards; inspect medical equipment for radiation discharge; monitor discharges around nuclear power plants; develop a carcinogen policy; develop the Right-to-Know substances list; and develop standards for infectious waste.

DEQE: Develop an air toxics control policy; administer the air management program; monitor ground and surface waters; administer the hazardous waste management and cleanup programs; regulate hazardous and solid waste incinerators; and enforce provisions of the Right-to-Know law.

DFA: Conduct economic impact assessments and risk assessments prior to pesticides registration; train and license applicators; administer the pesticide registration process; and enforce regulatory programs for pesticide use.

In reviewing the responsibilities of these agencies, the Commission identified several factors that have led to conflicts or duplication of effort described in the Agenda '90 Report. First, the DPH was the Massachusetts environmental regulatory agency in the 1960s and early 1970s. Second, environmental protection and public health issues increasingly overlap as the state of scientific knowledge on environmental health issues increases. Third, the lack of firm federal standards and guidance has made the job more difficult for Massachusetts' agencies.

The Commission identified the following areas of concern:

- The respective roles of the DPH, DFA and DEQE regarding public health are not well defined.
- All three departments have public health risk assessment capabilities, which has resulted in some duplication of effort.
- No reliable mechanism currently exists for resolving standard-setting or policy disputes among the three agencies. Discussions among staffs of the agencies are often limited to informal consultations, with no clear structure for resolving disputes. This has been apparent in the development of a carcinogen policy by DPH and the development of an air toxics policy by DEQE. This has been further exacerbated by the fact that the agencies are in different secretariats (DPH is located within the Human Services secretariat) each of which has a different mission.

- DFA has an inherent conflict in being both a regulatory agency and a promoter of agricultural interests. Some have noted the idea that having both roles can compromise the agency's ability to take a firm stance in protecting public health and the environment.

The Commission makes the following recommendations to address these concerns:

III-7. DEQE and DPH should establish a Health Effects Advisory Committee to meet on a regular basis to bring their respective expertise and statutory responsibilities to bear on decision-making in the following areas:

- integrating the DPH draft carcinogen policy and the DEQE Air Toxics Methodology;
- establishing hazardous waste site cleanup standards; and
- other emerging issues with joint responsibilities.

III-8. DEQE, DPH, and DFA should develop working agreements or memoranda of understanding to delineate the roles and responsibilities of the respective departments in the following areas:

- indoor air pollution, including radon
- registration of pesticides
- asbestos
- other emerging issues with joint responsibilities

III-9. To alleviate the consistent conflict among agencies on management of pesticides, responsibilities should be restructured as follows*:

- Primary responsibility for regulation of pesticides and enforcement of pesticide regulations should be under DEQE.
- DFA should not be responsible for registering pesticides.
- Decisions concerning registration of a pesticide should give primary emphasis to the protection of public health and the environment.

* See **Dissenting Opinions & Recommendations**, Appendix

2.

- DFA should provide additional training and improve the administration of the licensing and certification program for pesticide applicators.
- DEQE should establish maximum contamination levels of pesticides in drinking water and monitor the effects of pesticides on the environment, including conducting environmental assessments.

DEQE appears best suited to assume regulation and enforcement responsibilities, given its existing authority to protect the air, land, and water from a variety of chemical discharges. In particular, DEQE is currently charged with protection of groundwater, one resource that is constantly threatened by pesticide contamination. Giving DEQE the responsibility of protecting groundwater supplies without the necessary tools to do so undermines the agency's effectiveness, and is unfortunately analogous to the current situation with underground storage tanks. In this latter instance, DEQE develops contamination standards for underground storage tanks, but local enforcement authority lies with fire chiefs rather than the Boards of Health which are primarily concerned with groundwater protection.

Education and training of applicators, development, implementation and promotion of improved management technologies such as integrated pest management, assessment of economic impacts of pesticide registrations, and the development of a yearly pesticide management plan and a data base should remain the responsibility of DFA.

The Department of Waste Reduction and Management

The Commission is confident that DEQE's capacity and performance will improve significantly if the recommendations offered above are adopted. Nevertheless, the Commission believes that even an improved DEQE will need additional help in dealing with one of the major issues facing the Commonwealth now and in the future: our emerging crisis in waste generation and disposal. Providing that help will require, in the Commission's judgment, both a new approach and a new institution.

The Problem

In the early days of the environmental movement, the phrase "Spaceship Earth" was coined. The concept compared the Earth

to a large, heavily populated spaceship, with finite usable resources and waste storage capacity. It suggested that the inhabitants of the planet, like those in a spaceship, must recognize waste disposal and resource allocation as basic survival issues.

Ironically, the many benefits of modern industrial society have made the spaceship metaphor all the more appropriate. An expanded economy affords us many opportunities to consume as our technology allows us to create new products made from compounds that do not occur naturally. Nevertheless, both our store of resources and our storage and disposal capacities are finite and shrinking. Indeed, the faster we use up resources and thereby generate waste materials, the faster both our resources and our ability to dispose of wastes diminish.

The story is both simple and sobering:

- 6.2 million tons of solid waste are generated annually in Massachusetts.
- 192,026 tons of hazardous waste are generated annually in Massachusetts, from 11,497 sources.
- The Commonwealth has 195 active landfills. Sixty-five have been closed over the last decade. Eighty-three more are predicted to reach capacity by 1990, with thirty-eight closures possibly resulting from presently known or suspected pollution problems.

The most serious concern is the danger of toxic contamination of groundwater from the leaching out of chemicals buried in all landfills, even those that receive only municipal, as opposed to industrial, wastes. As communities consider alternatives to landfills in disposing of our waste stream, a controversy simmers over the role of incineration. Citizens are concerned over both the dangers of airborne toxics caused by the burning of chemicals, and the need to dispose of the ash residues from combustion of trash. Increasingly, as debate continues over appropriate, land-based disposal techniques, wastes are ending up in our oceans which, though vast, suffer severe localized contamination and have their own limited carrying capacities.

Everything goes somewhere. If we are not to do severe damage to our economy, health, and quality of life - indeed, to the very ecosystem that sustains all life - we must find a better way to deal with our waste disposal problem. While this is a global issue, there are useful steps we can take here in Massachusetts.

III-10. The Commonwealth's waste management activities should be redefined by statute to establish the reduction of waste generation as the primary focus of its regulatory efforts.

The new waste management paradigm will emphasize first, the avoidance of waste by reducing the quantity of waste generated; second, the recycling and reuse of waste materials; third, the treatment of waste materials that cannot be recycled or reused; and finally, the safe and secure disposal of wastes.

The proposal for a statutory mandate on waste reduction as a primary goal of the agency responds to a theme the Commission heard repeated many times: our environmental protection efforts (primarily in DEQE) have historically focused far too much on end-of-the-pipe control or after-the-fact cleanup strategies rather than on earlier preventive action. This approach has not fulfilled public expectations for environmental protection, and has incurred greater costs than would result through a stronger preventive approach to environmental contamination.

A new preventive approach, using safer materials and reducing residuals, is an environmental imperative. This is the goal of creating a statutory requirement that the reduction of waste generation become the primary focus of regulatory as well as non-regulatory efforts.

Enacting this strategy for waste management as the law of the Commonwealth is an appropriate step but only an initial one. Effecting this approach will require new regulations and permit criteria that provide the flexibility needed to foster better waste management practices. Furthermore, the implementation of the paradigm will require continuing policy leadership by the Secretary of Environmental Affairs and all of the agencies of the Secretariat. In fact, the hierarchy of waste management options must become infused throughout state government - not just the environmental agencies - and the private sector. The Secretary and the Governor must lead the way for this significant change in attitude and behavior to take hold.

III-11. A new Department of Waste Reduction and Management (DWRM), with its own Commissioner, should be created.

The new department would combine existing waste management programs in DEQE and the Department of Environmental Management (DEM) and a new source reduction program as

well. The Hazardous Waste Facilities Site Safety Council, which now conducts assessment and other activities respecting hazardous waste facilities, should be made an adjunct to this new department.

The Commission recommends the creation of a new department, rather than a reorganization of waste-related functions within the present DEQE. The Commission believes that the necessary fundamental changes in the approach to waste issues are more likely to be adopted by a newly created department rather than in an agency (DEQE) with an ingrained reliance on traditional regulatory methods.

DEQE has already begun to make the prevention of waste generation and contamination a priority and should continue to do so. Some concerns were expressed to the Commission that having another agency working on this important mission could ultimately discourage DEQE from incorporating source reduction goals into the regulatory process. The key to having DWRM and DEQE work together cooperatively is strong policy leadership from the Secretary's office. The Commission believes that the adoption of the recommendations made in Part II will create the conditions under which that leadership can be exercised.

[COMMENT: The Commission has embraced the fundamental recommendation that EOEA and its agencies, especially DEQE, make waste prevention a priority. The key to implementing this policy is to reinforce the new program emphasis with the resources necessary to carry it out. In DEQE this requires a shift in resource allocation from the current emphasis on waste cleanup programs to waste prevention programs. The physical location of the waste prevention programs (in a separate department or within DEQE) is less critical than ensuring that sufficient resources are allocated to implement them.]

III-12. The Commission recommends that existing obstacles and disincentives to greater public and private sector funding and participation in household hazardous waste collection programs be studied and recommendations made by the Household Hazardous Waste Subcommittee of the Hazardous Waste Advisory Committee (created by M.G.L. c. 21C). DEQE, DWRM, and the public should be represented on this subcommittee.

Not only does everything we use go somewhere, but all waste materials come from someone, namely all of us. Waste management is not only a matter of getting business to adopt better practices: it must extend to communities and homes as well.

Massachusetts households are the source of numerous waste products - from paint thinner to nail polish remover to used crankcase oil to insecticides - that create severe environmental problems if their disposal is not safe and secure. Making a quantum improvement in our household hazardous waste collection efforts will save money in the long run by avoiding costly contamination and subsequent remediation. It will also perform a valuable environmental education function, as citizens become more aware of their ability to help prevent environmental damage and their responsibility to do so.

The Department of Natural Resources Conservation

Custodianship of state land, rivers, and the aquatic and terrestrial species that inhabit them is a basic function of all agencies of the Secretariat. Four of the five operating agencies - DEM, DFWELE, MDC, and DFA - have land acquisition and management as a primary mandate. A fifth agency, DEQE, carries within its mandate the responsibility for administering the Aquifer Land Acquisition Program.

The Office of the Secretary also plays a key role through the Division of Conservation Services (DCS) and the Office of Coastal Zone Management (CZM). The DCS administers several land-related state grant programs and the federal Land and Water Conservation Fund. CZM, while not acquiring land per se, plays a strong coordinating function with both the land-acquiring and regulatory agencies. The Secretary is advised on public land policy through the Advisory Committee on Land and Recreation Policy and on the Statewide Comprehensive Outdoor Recreation Plan by a technical advisory group.

As basic as land stewardship is to the mission of the Secretariat, the administration of this function neither fulfills public expectations nor adequately protects the endangered natural resource base of the Commonwealth. The Commonwealth's acquisition and management of land appears to be impeded by two major weaknesses: fragmentation of responsibilities among agencies, and insufficient planning and program coordination in the Office of the Secretary.

Evidence of fragmentation includes the variety of management methods and acquisition procedures and a striking overlap of programs, jurisdictions and missions such as rivers and Boston

Harbor. Fragmentation also results in inefficient allocation of resources. Despite the successes of individual departments in their own spheres, the Commission found that this fragmentation limits what the Commonwealth could and should achieve.

The effect of fragmentation of procedures for land acquisition and management is magnified by the absence of an effective structure in the Office of the Secretary to coordinate budget and policy, to develop rational planning practices, to generate sound data on resource protection, and to articulate and enforce a coherent approach to land protection and stewardship in the Commonwealth. In sum, a coordinated statewide plan is needed to protect the long-term ecological health of the Commonwealth's limited natural resource base.

The Commission wishes to emphasize that land acquisition will be of primary importance over the next five years, after which much critical natural resource land is likely to be unavailable for conservation. It is imperative that agencies be capable of systematic and rigorous pursuit of their acquisition agendas. They must find an appropriate balance between responding to acquisition opportunities and adhering to procedural safeguards. The Commission recommends a series of structural and management changes to address these issues.

III-13. The existing programs and functions of MDC, DEM, DFWELE, and DCS should be consolidated into a single Department of Natural Resources Conservation (DNRC) under a Commissioner reporting directly to the Secretary. This change should take effect no later than January 1, 1991.*

III-14. The DNRC should operate under the direction of a succinct, targeted mission statement developed with the Secretary's Office in conformance with the overall state environmental mission. The mission statement should guide the selection of the Commissioner and serve as a measurement of progress of the DNRC toward fulfilling its mandate.

III-15. As soon as possible, but no later than December 31, 1989, a two-pronged management study should be initiated. In anticipation of the January 1991 transition date, the manage

*See Dissenting Opinions & Recommendations, Appendix 2

ment study would have two objectives: first, to recommend the most efficient management of the new Commissioner's office, and second, to recommend a way to align each of the existing operating divisions and regions into the structure of the new Department.

III-16. A clear and efficient division of responsibilities should be effected both between the DNRC and the Secretary's Office and within DNRC itself.

Long-range policy and planning functions for land protection should be centralized in the Office of the Secretary. Year-by-year land acquisition planning should be performed by DNRC. Legal and appraisal functions within the current operating agencies should be consolidated and centralized within the new DNRC to ensure rapid response and prevent duplication of effort.

III-17. The Executive Office and DNRC should emphasize land acquisition and management for long-term ecological protection, integrating this goal into current management practices.

Cross-Agency Concerns

The remainder of Part III is devoted to two operational issues with relevance for all the Secretariat's agencies.

A Valuable Resource: The Grant-Making Programs

Grants are a significant tool for all of the operating agencies in implementing the environmental agenda. Enormous state resources have been committed to environmental grants programs. Both the Executive and Legislative branches concur in the desirability of involving and assisting local governments in addressing environmental problems. Also, grants can and must be used as levers to obtain cooperation and compliance from municipalities.

However, only haphazard attention has been paid to creating convenient, swift and efficient access to grants at the city and town level. As a result, critical knowledge of and experience with the grants process is scattered and often is reinvented for each grants program. Lack of consistency in grants procedures is not surprising. The extensive list of grant programs in Table 1 suggests the

Table 1

Grant programs administered by the Executive Office of Environmental Affairs

Coastal Zone Management

Boatyard Preservation Restriction Program*

Buzzard's Bay Estuary Grant

Coastal Facilities Improvement Program

a) Harbor Planning Grants*

b) Public Harbor and Waterfront Facilities

Estuarine Sanctuaries Grant (with DEM)

Pass-Through Grant (Dept. of Interior)

Section 306 Grant of Federal Coastal zone Act of 1972

Section 309 Interstate Grants

Department of Environmental Management

Bay Circuit

City and Town Commons

Cooperative Agreement for Water Use Studies

Diamond Brook Watershed Project - Walpole

Federal Disaster Relief - PA 104

Fire Control - Targeted Funds

Forestry Planning

Greenway Planning Program

Hazardous Waste - Small Generators

Household Hazardous Waste Collections

Improved Wood Utilization

Improvements at DEM Rinks

Insect Disease Control - Gypsy Moth Suppression

National Flood Insurance Program

Natural Heritage Program

Olmsted Parks

Public Participation Studies (SCORP)

** Programs not fully implemented*

Table 1 (Continued)

Rivers and Harbors Program
Recreational Capital Expenditures - Federal Share
Reservoir Site Acquisition
Resources Development Program
River Planning - Title II
Rural Community Fire Protection - Political Subdivisions
Rural Fire Protection - Training and Excess Property
Solid and Hazardous Waste Program
Suasco Watershed Flood Control Reservoir
UCP - Fuelwood
Urban and Community Forestry
Washington Mt. Brook Watershed Project
Water Resources Planning - Title III

Department of Fisheries, Wildlife and Environmental Law Enforcement

Contract Grants with UMass-Amherst for Biological Research
a) Acid Rain Mitigation Research
b) Endangered Sportfish Restoration - Marine Fisheries
c) Fisheries Cooperative Unit
d) Wildlife Cooperative Unit
Natural Heritage Program Small Research Contracts Program
Pittman-Robertson Wildlife Restoration
Riverways Small Grants Program
Shellfish Local Aid Fund
Wallop-Breaux Sportfish Restoration - Inland Fisheries
Wallop-Breaux Sportfish Restoration - Marine Fisheries

Department of Food and Agriculture

Division of Agricultural Development Promotional Grant Program
Division of Regulation Services Bio-Control Grants
Federal State Marketing Improvement Program
Massachusetts Agriculture in the Classroom Grants
Massachusetts Emergency Assistance Program

Table 1 (Continued)

Department of Environmental Quality Engineering

Aquifer Land Acquisition

Clean Lakes Grants

Collection Sewers Grants

Infiltration and Inflow

Landfill Capping Grants

Leak Detection and System Rehabilitation

Meter Modernization Grants

Tier II Construction Grants

Water Filtration Grants

Water Pollution Control Construction Grants

Water Supply Contamination Correction Farmers' Home
Administration Grants

Division of Conservation Services

Federal Land and Water Conservation Fund

Massachusetts Self-Help Program

Massachusetts Urban Self-Help Program

Strategic Acquisition for Vulnerable Environments*

Strategic Urban Areas Recreational Facilities*

Water Resources Commission

Reservoir Site Acquisition (with DEM)

**Programs not fully implemented*

administrative duplication and inefficiency inherent in the grants process currently in effect.

The Commission believes that a simple step could greatly improve the efficiency and effectiveness of the Commonwealth's investment in grant programs:

III-18. An Office of Grants Administration should be established in each Department and work closely with the Secretary's Local Assistance Unit . (See recommendation II-7)

The local assistance unit should coordinate with the regional facilities to direct information to cities and towns on the availability of grants and the simplest means to obtain them.

Consolidated Regions

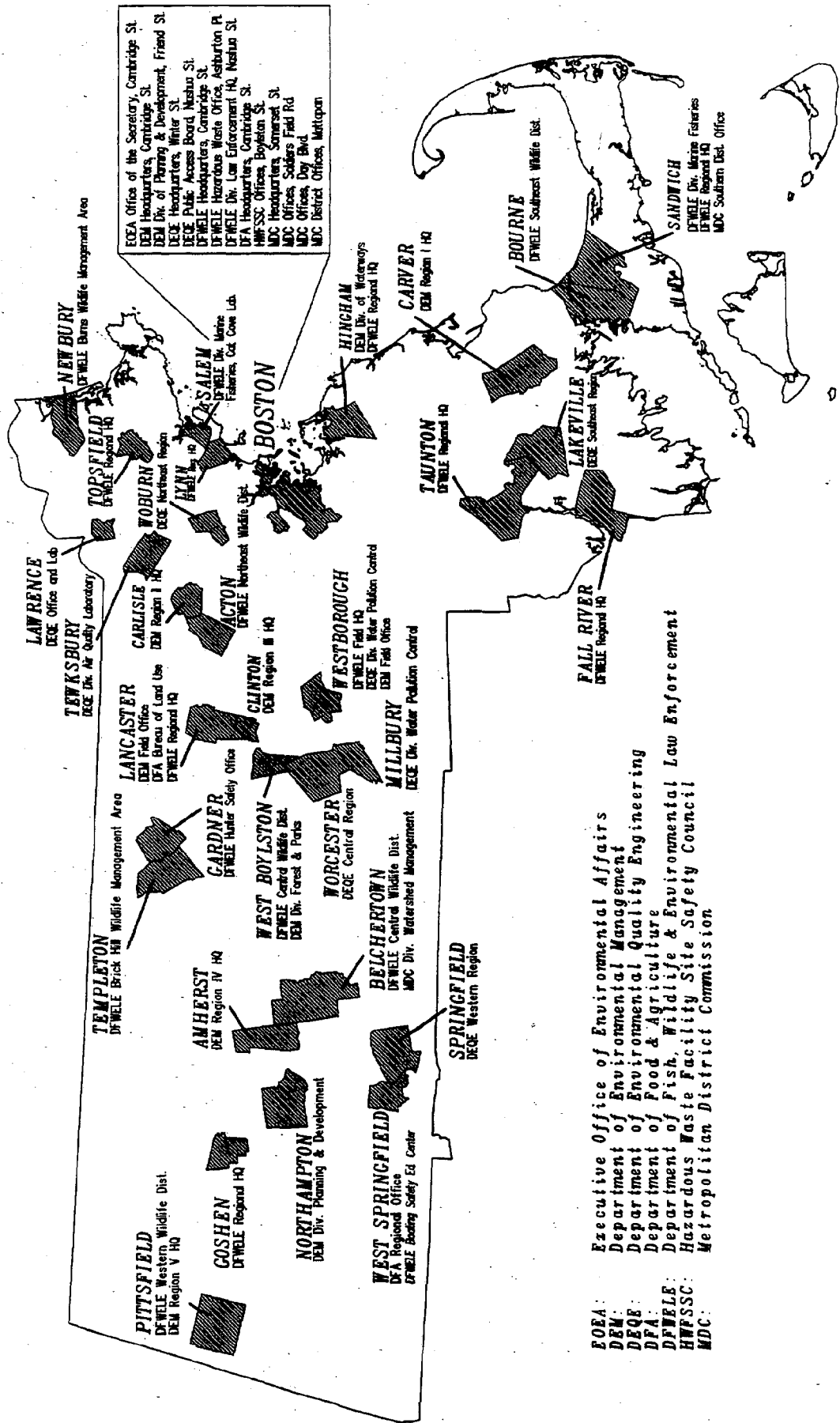
A major barrier to effective delivery of agency services results from the fragmentation of the Secretariat's identity in numerous locations throughout the Commonwealth. An analysis of the various locations of the Secretariat's offices identified more than 50 facilities throughout the state, excluding those associated with a specific park or reservation. (See Exhibit C)

Each department maintains its own regional structure: DEQE has four regional offices; DEM has five regional headquarters; DFWELE has five regional offices, five wildlife district offices, and one regional headquarters. In addition, there are numerous other facilities including laboratories and those related to specific parks and reservations.

The Commission supports the use of facilities throughout the state, in addition to the Boston offices of the Secretariat, to bring government closer to the citizens and the environment it serves. However, the present geographic distribution of facilities has at least three negative impacts on the Secretariat's performance: 1) it prevents employees from acquiring a sense of common purpose and identity; 2) it renders the employees, information and services of the Secretariat less accessible to the public; and 3) it decreases agency accountability by reducing the ability of the Secretary to coordinate the environmental agenda statewide.

EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS

Location of Offices



To remedy this situation, the Commission recommends:

III-19. Agency field offices, except for those serving particular state parks or reservations, should be located in common regional facilities wherever possible.

A single facility in each region would ensure coordination on a daily basis and provide the public with a single point of contact for all regional environmental programs. The administration of each region should provide a higher level of constituent services, including technical assistance, education, grants administration, communications, and public relations, and function as an advocate for the region in the Boston office.

IV. Financing Environmental Protection

Protecting our environment is expensive and getting more so. Massachusetts, like other states and the nation as a whole, does not currently devote sufficient public and private dollars to either the amelioration of existing environmental problems or the prevention of new ones. This gap will only grow wider over time unless the Commonwealth moves aggressively to close it. This chapter presents the Commission's analysis of the funding problem and a number of recommendations to deal with it.

The Price of Protection

Economics students are taught a tripartite division of the world's assets: capital, labor, and land. Environmental protection entails heavy investments in all three. Capital investments include wastewater treatment plants, leachate collection systems, waste-to-energy facilities, and emission control and monitoring equipment. Labor costs are high, especially for government, which shoulders most of the responsibility for standard setting, permitting, compliance oversight, and enforcement. The cost of land also adds significantly to the Commonwealth's total environmental protection budget, as rising real estate prices have increased the cost of acquiring land for open space, recreation, habitat protection and aquifer-buffering. In addition, the nation's historical inattention to maintenance and replacement of infrastructure and our past ignorance of proper waste disposal practices have combined to present us with a mammoth unpaid bill for previous mistakes. Furthermore, the federal government has stepped back from the level of financial assistance to states that prevailed only a decade ago, widening the gap between needs and available resources.

Operating Costs

The Agenda '90 Report notes that lack of adequate funding has been one of the most significant obstacles to the implementation of the environmental protection mandate. In the thirteen years since the 1975 reorganization of the Secretariat, there has been an extraordinary growth in environmental mandates and responsibilities in virtually all areas. However, despite staffing increases in some selected programs and agencies, increments in overall Secretariat resources have been far less than for state

government as a whole. From June of 1975 to March of 1988, state-funded full-time positions in the Secretariat increased by only 4.8%, compared with an increase of over 15% for the executive branch as a whole.

Each of the five operating agencies describes shortfalls in manpower to implement program responsibilities to a greater or lesser degree, but the situation is perhaps best illustrated by a comprehensive program planning and staffing analysis conducted by DEQE. For example, while DEQE's budget increased 114% from FY82 to FY86, the bulk of the increase merely offset losses in federal and local support for agency operations, and is therefore misleading. The agency's FY87 administrative operating budget of \$22 million constituted only 2% of the capital funding that it was required to administer.

During this period, DEQE has experienced substantial staffing increases:

- State-funded full-time positions increased from 294 to 593, or by 102%.
- Approved positions, including federal and 460 new staff to support the hazardous waste cleanup initiative approved by voters in 1986 (Question 4), increased from 553 in FY80 to 1423 in FY88, or by 257%.

But even these increases have fallen far short of needs. Based on DEQE's analysis, almost the entire 870-person increase since 1980 could have been devoted to staffing a partial list of new mandates, while the work load in traditional programs has more than doubled. DEQE estimated a shortfall of 536 people in FY88, not counting lost federal positions, 83 new positions needed to implement the 1987 Solid Waste bill and revolving loan/construction grants, and the additional staff needed to implement the mandate of Question 4.

Table 2 (*next page*) collects operating budget data for the fiscal year just ended and projects operating needs five years into the future. What is most significant here is the 102% increase that the DEQE operating budget will require to meet currently projected needs.

Capital Costs

As difficult as it has been and will continue to be to meet the state's operating needs, the situation on the capital side is even more disturbing. The aggregate cost of currently quantifiable

TABLE 2

Major Capital Programs:Current Outlays and Projected Five Year Needs

<u>PROGRAM</u>	<u>CURRENT OUTLAY</u>	<u>SOURCE</u>	<u>PROJECT NEEDS 1993</u>
HAZARDOUS WASTE CLEANUP AND EMERGENCY RESPONSE	.08 B	GEN. OBL. BONDS (GOB)	1.3 B
SOLID WASTE CLEANUP AND CAPPING	.260 B	GOB 85% LOCAL AID 15% FUND	1.0 B
WATER POLLUTION CONTROL (upgrading and managing waste- water treatment facilities)	.7 B	GOB 55% FED. 35% LOCAL AID 10%	2.4 B
WATER SUPPLY (includes expenditures required to meet Federal Safe Drinking Water Act requirements - excludes MWRA costs)	.68 B	GOB 80% FED. 20%	1.5 B
AQUIFER/WATERSHED PROTECTION PROGRAMS	.023 B	GOB 100%	.08 B
LAND ACQUISITION	.012 B	GOB 95% LOCAL AID 5%	.05 B
PESTICIDE ABATEMENT	.002 B	GOB 100%	.035 B
TOTAL OF MAJOR CAPITAL PROGRAMS	1.757 B	GOB 98% FED. 1.5% LOCAL AID .5%	6.365 B

(All dollar figures in 1988 dollars.)

capital needs is at least \$6.36 billion, not including the estimated \$ 2.6 billion associated with the Massachusetts Water Resources Authority - a significant exclusion. Conservative estimates of major capital needs over the next five years (not adjusted for inflation) include:

- **Water supply and pollution control: \$3.9 billion.** (Excludes new costs required by the Federal Safe Drinking Water Act, solid waste costs beyond the \$271 million authorized in 1987, and costs of the MWRA.)
- **Solid waste cleanup: \$1 billion.** For example, the estimated cost of equipping existing resource recovery plants with the required pollution control devices is \$100 million. The solid waste law requires such pollution control devices, but does not specify the source of funding to reimburse communities for compliance. This is an additional cost above and beyond the funds authorized in the statute.
- **Hazardous waste cleanup: \$1.3 billion.** Question 4 will require a substantial increase in expenditures for this category. (See Table 3)

The Coming Squeeze

Traditionally, the public has relied on federal and state government for major environmental program funding. Today these sources of support are becoming increasingly less reliable. For example, despite the enactment of major new environmental statutes and attendant increasing responsibilities, the federal EPA's operating budget is the same today, in constant dollars, as it was in 1976, the final year of the Ford Administration. This failure to adequately fund EPA has placed more pressure on state regulatory agencies, including the Commonwealth's. Furthermore, the nation's second largest public works program, Construction Grants, initially authorized 75% funding for municipal wastewater treatment facilities required by the Federal Clean Water Act. This funding has been reduced substantially and will soon be phased out completely, leaving the costs of carrying out the statutory mandates with the states. The Commonwealth's ability to continue funding wholly through general obligation bonding is limited given the state's overall capital expenditure needs and capital markets.

TABLE 3

Operating Budget:Current State Expenditures and Projected Five Year Needs

<u>AGENCY</u>	<u>FY'88 COSTS</u>	<u>SOURCES</u>	<u>FY'93 PROJ. COSTS</u>	<u>% CHANGE</u>
EOEA	4.56 M	Gen. Fund (CZM Fed. 10%)	6.0 M	+32%
DEM	29.93 M	Gen. Fund 60% Local Aid 35% Fed. .02% Park User Fees 5%	40.52 M	+35%
MDC	81.97 M	Highway Fund 66% Local Aid 32% Gen. Fund 2%	92.79 M	+13%
DFWELE	14.79 M	Inland Fish and Game Fund 68% Gen. Fund 32%	25.18 M	+70%
DFA	9.17 M	Gen. Fund 34% Local Aid 17% Mosquito Control Fund 17%	18.35 M	+100%
DEQE	47.39 M	Gen. Fund 90% Fed. 10%	95.6 M	+102%
TOTAL	187.8 M		278.44 M	+48%

(All dollar figures are in 1988 dollars.)

The state tax cap approved by the voters in 1986 also creates a severe limitation on potential funds. It places a ceiling on collected tax revenues, essentially limiting annual increases to no more than increases in wages and salaries. By limiting revenues available to fund state programs, the tax cap effectively limits the resources available to meet the additional environmental costs incurred through economic growth.

Proposition 2 1/2 places similar limitations on funds at the local level. Under the referendum, annual increases in community property tax levies are limited to 2.5% of their taxes collected in the previous year. Consequently, Proposition 2 1/2 constrains municipalities from raising revenues to meet their own growing needs, and also forces allocation of state monies to cities and towns - funds that might otherwise be allocated to state necessities, including environmental obligations.

Taken in combination, these state and local caps limit the traditional sources of funds for environmental programs, especially where the need for such expenditures has only recently been recognized.

Closing the Gap

The needs outlined above are just that: needs. The dictates of our laws and the demands of our citizenry require that they be met. Doing so will require a combination of political will and the efficient and thoughtful matching of funding sources, financing mechanisms, and environmental protection tools.

IV-1. There must be major state funding increases if state agencies are to carry out existing mandate requirements, and capital programs must be adequately staffed for bond funds to be spent expeditiously and efficiently. New program mandates should be matched with funding sources.

While increased budgeting commitments will be necessary, it is unrealistic to expect that they will be sufficient. The Commission analyzed the Commonwealth's future funding needs extensively. An obvious but important conclusion of that analysis is that different categories of need suggest different funding solutions, based on different principles of public policy.

The Commission identified six such categories that encompass nearly all public and private expenditure for environmental protection: facilities, pollution minimization, regulation, land, cleanup, and knowledge. While it was not possible for the Commission to make specific dollar projections of costs or savings for each of these categories, it is clear that adoption of the recommendations below will result in a substantial reduction of the environmental funding gap, thereby holding down the increase in general revenue commitments that will be required.

Facilities

IV-2. The Commonwealth should operate under the presumption that major environmental facilities will be paid for by their users (both municipal and private) for operation and maintenance costs, closure (where applicable), and replacement. Such facilities include sewage treatment plants, drinking water supply and treatment facilities, and solid and hazardous waste disposal facilities. There should continue to be a federal, state, and local role in meeting initial capital costs.

a) Where communities are unable to fund such facilities, *federal and state assistance* will continue to be necessary. Compliance with federal and state laws must be achieved.

b) In such cases, the state financing mechanism of first resort should be a low interest *revolving loan fund*. Direct state subsidy in the form of grants should be made conditional on the municipality coming into and remaining in compliance with operating requirements.

c) Municipal borrowers from the revolving fund should be required to establish a *sinking fund* for depreciation of the facility, such fund to be financed by a portion of its users' fees. The fund would be used as a down payment on any replacement facility or to pay the full costs of closure in the case of landfills.

d) The practical difficulties of charging households pro rata for solid waste disposal may require *local taxpayers (rather than ratepayers) to finance solid waste disposal* on a town-by-town basis.

e) *User fees* should generally be employed to fund present and future operations of environmental facilities. At least in the case of municipalities, they may not be an appropriate or realistic source of funding for the remediation of problems (e.g., leaking landfills) created in the past. In such cases, state or federal taxpayer subsidies may be required.

f) The Commonwealth should create a mechanism for applying particular *revenue streams* to the financing of environmental facilities and cleanups. Also, the Commonwealth should generate additional revenues as an alternative to the existing use of general obligation bonds (for example, by increasing its gasoline tax) with proceeds to be used for such facilities and cleanups.

g) The Commonwealth should encourage municipalities, through financial incentives or otherwise, to develop *regional solutions* for sewage treatment, drinking water, recycling and disposal of solid and hazardous waste.

h) The Commonwealth should fund, either by grants or by low-interest loans, *pilot projects* for innovative waste disposal and waste minimization methods.

i) Opportunities for *private financing and operation* of facilities that meet all environmental requirements should be encouraged as another source of financing.

IV-3. Municipalities should be afforded greater flexibility in their attempts to deal with environmental finance.

a) The Commonwealth should allow cities and towns to issue revenue bonds in addition to their current general obligation bond authority, as has been done for financing solid waste facilities.

b) In addition, the Commonwealth should allow municipalities to form pools to facilitate the marketing of their bonds.

c) Cities and towns should have greater flexibility to employ enterprise fund accounting, and should not be penalized in their local aid distribution for doing so.

Pollution Minimization and Prevention

Parts II and III of this Report discuss the need for the state to minimize and prevent the generation of waste and shift the focus of its laws and programs away from "end-of-the-pipe" and "managed disposal" to improved hazardous materials management and use reduction and other forms of prevention.

Such a shift is not only economically feasible, but may help make industry more competitive through more efficient use of valuable resources, reduced disposal and liability costs, and fewer regulatory burdens.

IV-4. To achieve the goals of pollution minimization and prevention described herein, the Commission recommends the following:

a) Wherever it is appropriate in evaluating applicants, existing state loan programs should take into account the degree to which hazardous materials minimization and reduction is achieved.

b) The Commonwealth should promote more aggressively, and provide funding for, the Northeast Hazardous Waste Exchange.

IV-5. Household hazardous waste collection and education grants to localities and regions should be increased and should be funded through the state Superfund program.

Regulation

IV-6. As a general principle, parties who engage in activities that require environmental regulation by the state, such as development or pollution discharge, should bear the cost of that regulation under a fair system of apportionment. This should be considered part of the cost of doing business.

a) Permit fees to developers and pollution sources should be set at levels that reflect government's actual costs of administering relevant environmental programs. Appropriate institutions, such as dedicated funds, should be established to receive such fees and provide the funding for such programs.

b) Penalties collected from violators should be paid into the Commonwealth's General Fund rather than being set aside for environmental purposes to remove any incentive for environmental agencies to assess penalties in order to finance their own operations. However, environmental credit projects may be considered in appropriate cases.

c) The Commonwealth should institute a pilot program requiring or encouraging the use of certified, private environmental auditors to augment government's own permitting and

monitoring capacity. These auditors would be paid for privately, as CPAs and lawyers are, and would add to government's ability to safeguard the environment without any additional budgetary cost.

d) The state should review the amounts of civil penalties assessed and collected for violations of environmental laws. Penalties issued in FY87 totalled \$1.2 million, but only \$792,400 was collected due to administrative delays. Administrative penalties staffing should be fully funded, including hiring sufficient numbers of staff to hear all appeals.

Land

Protecting our land is a transcendent environmental value. Doing so reserves open space, prevents unsound development, helps to maintain the quality of water and hence health, and provides habitat for many forms of wildlife. Failure to take timely steps to protect this resource can result in irreparable harms and detract from our quality of life. The growth of Massachusetts' economy and increasing market values of real estate makes effective action in this area imperative.

IV-7. The Commonwealth must have a long-term plan and budget for land acquisition. Such a plan should be developed under the direction of the EOEI Office of Policy and Planning.

IV-8. A local option real estate transfer fee should be imposed, with revenues used to establish land banks for land acquisition, park rehabilitation, and the creation of affordable housing.

IV-9. The state should continue to make its outdoor recreation areas and facilities broadly available to all citizens, irrespective of ability to pay. However, reasonable fees for camping and parking should be charged where appropriate.

Cleanup

The identification, assessment, containment, and cleanup of every hazardous waste site in Massachusetts will require massive capital and operating funding by the state (approximately \$1.5 billion), and by private parties as well (approximately \$2.6

billion). Two significant steps should be taken to ensure that this work goes forward.

IV-10. Collection procedures in the state's cost recovery program should be improved. The staff should work in conjunction with relevant collection agencies to ensure that full cleanup costs are recovered, including capital and administrative costs.

IV-11. To maximize and safeguard federal Superfund funding for Massachusetts, hazardous waste disposal capacity contracts must be secured as required under the Superfund Amendments and Reauthorization Act (SARA), and the cleanup deadlines established by Question 4 on the 1986 ballot should be made flexible in their application to federal Superfund sites. Such deadlines may cause the loss of federal cleanup funds (90% per site) if the EPA does not act within the Question 4 timetable.

Knowledge

Approximately \$5 million is spent annually for research and development for all EOEAs, with an additional \$2.5 million to be spent over the next year to upgrade EOEAs' data management capability. A severe lack of adequate technological data and research is a major obstacle to implementation of the environmental protection agenda. The following recommendations address this important need.

IV-12. The Center of Excellence in Environmental Science and Engineering, which would make grants to industry-academic partnerships that show special promise in the areas of emerging technologies and technological improvement (as proposed in the Agenda '90 Report), should be fully funded through tax-deductible donations or in-kind contributions from industry and educational and research institutes.

IV-13. The EOEAs' Office of Research, Testing and Standards should survey research activities going on throughout state government, establish priorities and exercise oversight so that the most efficient use is made of research expenditures.

V. Public Participation and Oversight

The earlier parts of this report provide an indication of how much activity takes place within the agencies of the environmental secretariat, the numerous important issues addressed there, and the many institutions involved. We noted in Part II that a targeted program for communications, both internal and external, is essential to the functioning of such a complex organization. This section of the report discusses a particular aspect of the Secretariat's relationship with the outside world: public participation through public-member oversight groups.

Public participation is a two-way street, one which both sides have an interest in maintaining and improving. From the point of view of the public at large and the various subgroupings thereof, purposes served by interaction with the Secretariat and its agencies include:

- **Oversight:** To make sure that the laws are carried out.
- **Access:** To ensure that citizens can be heard in a timely fashion when their interests and concerns are at stake.
- **Control:** In some limited cases, for historical or other reasons, citizen representatives hold actual power over some aspect of an agency's decision making.

From the point of view of the agencies of government, interaction with the public affords opportunities for:

- **Explaining.** To set forth reasons why the agency proposes to take, has taken, or has not taken a particular action.
- **Educating.** To impart a greater understanding of the environment, its importance in people's lives, and the role of public and private entities in conserving and protecting it.
- **Informing:** To receive information and perspectives that will help them do their jobs more effectively and sensitively.

The Secretariat provides a variety of public forums to further these purposes.

There are currently at least 62 public boards, commissions, and committees created by the Legislature or by administrative initiative, whose functions range from purely advisory to full administrative authority over their agencies.

The usefulness of these boards appears to be uneven: some are active, some moribund. Some have broad jurisdiction but no staff and have thus become overwhelmed and ineffective. The Commission fully supports the continued role of such groups in major administrative decisions and policy matters but recommends that public participation throughout the Secretariat be more focused. We offer recommendations to establish, clarify, or modify three levels of public participation: creation of policy advisory boards for the Office of the Secretary; changes in selected, program-specific boards at the agency level; and appointment of public-member groups to provide long-term oversight of the administration of environmental agencies and the progress made toward achieving environmental goals in the Commonwealth.

Policy Advisory Boards

Given the much greater control over policy the Commission is recommending for the Secretary, it is appropriate to appoint public-member boards to provide useful input to the Secretary's office on important matters of policy.

V-1. Five issue-specific Policy Advisory Boards should be appointed by the Secretary to advise the Office of Policy and Planning in the areas of water, air, waste, land, and coastal resources.

The Boards should be made up of public members who meet at least four times each year. Each should provide a focal point for public input on policy and programs in its specific area. The descriptions of the proposed policy boards follow:

WATER: The advisory board for water policy should emerge from a reconfiguration of the present Water Resources Commission. The Water Policy Advisory Board will continue to be responsible for developing, guiding, coordinating, and overseeing the state's water policy and planning activities. All regulatory functions of the present Water Resources Commission should be transferred to the new Department of Environmental Protection.

WASTE: The advisory board for waste policy should advise on all waste management issues (source reduction, recycling, solid, hazardous and low-level radioactive waste management, and siting of facilities). This board should be responsible for developing, guiding, coordinating, and overseeing the state's policy and planning activities for all aspects of waste management and regulation.

LAND: The advisory board for land acquisition and management should be a reconfiguration of the Secretary's Advisory Committee on Land and Recreation Policy (SACOLARP) with consideration given to streamlining the relationships of the Open Space Advisory Committee (OSAC) and the State Comprehensive Outdoor Recreation Plan (SCORP). The board should be responsible for developing, guiding, coordinating, and overseeing the state's policy and planning activities for all aspects of land acquisition, management and regulation, especially controversial projects.

COASTAL RESOURCES: This advisory board should carry forward the functions of the Coastal Resources Advisory Board (CRAB), currently within CZM. Although staffed by CZM, this board will also advise the Office of Policy and Planning.

AIR: This advisory board should be responsible for developing, guiding, coordinating, and overseeing the state's policy and planning activities for all aspects of air quality management and regulation.

The policy advisory boards should include ex officio, nonvoting membership of high-level staff from the Office of Policy and Planning. Attendance at meetings by policy staff from the relevant departments should also be encouraged. The policy advisory boards should form short-term task forces to address specific issues, as an alternative to the further proliferation of ad hoc advisory panels.

Agency-Level Boards

The Commission focused its discussion of agency-level groups on the Fisheries and Wildlife Board and the Marine Fisheries Advisory Commission, both within the Department of Fisheries, Wildlife and Environmental Law Enforcement; the Board of Environmental Management, within the Department of Environmental Management; and a proposed new role for existing

division-level boards in the disposition of state lands managed for conservation and recreation.

Department of Fisheries, Wildlife, and Environmental Law Enforcement (DFWELE).

Citizen involvement is alive and well, indeed robust, in two major boards of the DFWELE. These boards, the Fisheries and Wildlife Board and the Marine Fisheries Advisory Commission, have powers that go beyond oversight and advice. The Fisheries and Wildlife Board (FWB) has the power by statute (M.G.L. c. 21A s. 8) to appoint and remove the Director of the Division of Fisheries and Wildlife within DFWELE. Similarly, the Marine Fisheries Advisory Commission (MFAC) has the statutory authority (M.G.L. c. 21A s. 8) to approve the appointment and removal of the Director of the Division of Marine Fisheries by DFWELE's Commissioner.

The Commission recognized that vesting this degree of authority in citizen committees is a departure from normal patterns of public administration. The DFWELE Commissioner does not exercise the control over the agency's Division Directors that other Commissioners do: this makes it more difficult to hold the DFWELE Commissioner accountable for the agency's performance. At the same time, the members of these boards and the citizens whose interests are affected by their workings have become actively involved in the issues that come before the boards. The decrease in accountability may be the price of such positive citizen involvement. Therefore:

V-2. The existing statutory powers of the Fisheries and Wildlife Board and the Marine Fisheries Advisory Commission regarding the work of their respective Divisions should be retained.*

A companion recommendation was adopted to broaden public representation on the Fisheries and Wildlife Board:

V-3. The Fisheries and Wildlife Board should be composed of a total of seven members as follows:

- Three shall hold sporting licenses (hunting, fishing, trapping) for a minimum of three years.

* See Dissenting Opinions & Recommendations, Appendix 2

- One shall be a representative of the Non-Game Advisory Committee (a biologist or ecologist).
- One shall be a fisheries biologist
- One shall be a wildlife biologist
- Five shall be district representatives, at least one of whom shall be a farmer.

Department of Environmental Management (DEM).

The Commission also discussed the future of the advisory board for the DEM. Interviews with members of the Board of Environmental Management indicated that its role must be focused and clarified to enable it to provide effective service to the Department. The Board's current perceived ineffectiveness is attributed to several factors:

- a wide range of responsibilities - including forests and parks, water resources, safe waste management, division of waterways, and department-wide planning and development - without staff assistance to perform duties;
- membership that is relatively uninformed about the wide range of assigned issue areas;
- spotty attendance at meetings, attributed to lack of specific focus of the Board resulting in a perceived superficial and ineffective role in the real activities of the Department; and
- lack of a clear agenda from the Commissioner to guide the work of the Board.

The overriding problem appears to be a lack of information and expertise to make responsible recommendations on issues, a problem the Commission supports addressing as follows.

V-4. The Board of Environmental Management should be restructured to function at the program rather than the department level, with the purpose of providing a more focused set of issues (forests and parks) on which to advise the Department.

Public Oversight of Disposition of State Lands

Because of its overriding concern that the Commonwealth adequately plan for and manage the consequences of growth, the Commission recommends that citizen advisory boards within the new Department of Natural Resources Conservation be given a greater role in the disposition of state land.

V-5. Division-level boards should have the authority to approve of disposition of state lands for conservation, recreation, or other environmental purposes.

The proposed DNRC should prepare annual land acquisition and disposition plans with criteria and policies subject to formal public input and review. The DNRC should prepare an annual report of its land acquisition and disposition activities for wide public distribution.

Long-Term Oversight

A New Council on Environmental Quality

The Commission notes that in spite of the boards' infusion of public participation into the issues and activities of the Secretariat, no public group is assigned the task of monitoring the overall progress of the Executive branch on environmental issues. In many states, this duty falls to Environmental Quality Commissions created to provide an objective public forum on environmental concerns. Such commissions have great variation in responsibilities, assigned staff, budgets, and membership qualifications. Some are advisory; others have assumed greater roles in state policymaking in response to the current back-seat role of the federal government and increased state role in environmental management. The Commonwealth would benefit from formalized public oversight of the total environmental agenda.

V-6. A Massachusetts Council on Environmental Quality, whose membership should include the Chairs of the five Policy Advisory Boards, should be appointed to provide public oversight of the development and implementation of the State of the Environment Report and the Environmental Master Plan. The CEQ should meet with the Governor at least quarterly to address future environmental issues before they become problems.

The CEQ would perform a much different role from the numerous public advisory bodies that provide oversight of specific environmental issues and programs. The CEQ should draw upon the expertise of the policy advisory boards and program-specific boards to provide public input into and monitor progress on two significant functions of the Office of the Secretary: the Environmental Master Plan and the annual State of the Environment Report. In so doing, the CEQ should ensure that policy and the Master Plan embrace a cross-media rather than individual-medium perspective.

Perhaps the most critical function of the CEQ would be its link with the Governor. The presence of a continuing environmental voice at the highest level of government is necessary because decisions affecting the environment will directly affect the quality of life for all citizens of Massachusetts.

Program Review Boards

M.G.L. c.21A s.5 authorized the establishment of program review boards. *"The Secretary shall have the power to appoint one or more program review boards consisting of individuals who have demonstrated interest and competence in matters relevant to the area under review so that each major program area within the office shall be reviewed by such a board not less than once every four years. The written reports of such reviews shall be submitted to the Secretary and shall be available to the public upon request. The members of such boards shall receive no compensation but shall be reimbursed for expenses necessary to the performance of their duties."*

Although this statute was enacted 13 years ago, program review boards, potentially one of the most useful public participation mechanisms authorized in Chapter 21A, have never been created. A combination of strategic planning and ongoing review and oversight of environmental programs can minimize the need for massive reorganization of the Secretariat in the future. Programs will be able to reflect changes in public policy and to take the initiatives required to make them relevant and effective in changing political and social climates.

V-7. The Commission urges the Secretary to appoint Program Review Boards as authorized in Chapter 21A, Section 5, to review operations of the Office with a view toward improving administrative organization, procedures, and practices.

APPENDIX 1

Implementation Plan

Key to Symbols:

A: Administrative action

E: Executive action

L: Legislative action

*: Action initiated or completed at
time of publication

<u>No.</u>	<u>Recommendation</u>	<u>Action</u>
	POLICY	
II-1.*	Amend M.G.L. c. 21A to create Office of Policy and Planning in Secretary's office, under leadership of new statutory Undersecretary.	L.
II-2.	Develop comprehensive, rolling, four-year Environmental Master Plan for Massachusetts (Policy Office).	A.
II-3.*	Prepare Annual State of the Environment Report (Executive Office).	A.
II-4.	Reorganize Executive Office.	A.
II-5.	Strengthen MEPA.	L.
II-6.*	Create Office of Resources and Systems within Office of the Secretary.	A.
II-7.*	Create Office of Communications, with Local Assistance Unit, in Office of the Secretary.	A.
II-8.	Establish environmental education program, coordinated by EOEa.	A.
II-9.	Establish general professional and experience qualifications as guidelines for the appointment of Secretary, Undersecretaries and Commissioners.	A.
II-10.	Consolidate Secretary's office and central offices of agencies in single building in Boston.	A.
II-11.	Amend M.G.L. c. 21A to clarify accountability of Commissioners to the Secretary.	L.
II-12.	Change name of Governor's Office of Economic Development to Governor's Office of Economic Development and Environmental Protection. Add senior staff advisor to Governor, separate from GOED&EP, to focus on environmental issues.	E.

II-13. Office of Policy and Planning to participate in development of and provide consistency review for all major policies, regulations, programs, and legislative proposals from secretariats likely to be affected by environmental policies. E.

II-14. Executive Order with the following directives: E.

a) All projects and programs examined to identify opportunities for promoting environmental benefits.

b) Grant programs conditioned on municipal compliance with state environmental policies.

c) Reaffirm protection of critical natural resource lands.

STRENGTHENING THE OPERATING AGENCIES

III-1. Change name of DEQE to Department of Environmental Protection and establish mission statement emphasizing prevention of environmental harms. L., A.

III-2.* Restructure relationship between DEQE regional and central offices; strengthen central office and give greater policy direction to regional offices. A.

III-3.* Assign responsibility for ongoing assessment of management and organizational problems to DEQE Deputy Commissioner; institutionalize internal management review process. A.

III-4. Initiate independent study of compliance with and enforcement of DEQE regulatory mandates. A.

III-5. Upgrade DEQE training for new and junior employees. A.

III-6. Continue increases in DEQE budget resources to match agency's mandates. L.

III-7. Establish DEQE-DPH Health Effects Advisory Committee. A.

III-8. Develop working agreements or MOU's to delineate respective roles and responsibilities of DEQE, DPH, and DFA in specific issue areas. A.

- III-9. Restructure agency responsibilities on pesticides management. L.
- III-10. Define by statute the Commonwealth's waste management activities to establish reduction of waste generation as primary focus of regulatory efforts. L.
- III-11. Create Department of Waste Reduction and Management with Commissioner. L.
- III-12. Initiate study and recommendations to remove existing obstacles and disincentives to greater public and private sector funding and participation in household hazardous waste collection programs. A.
- III-13. Create new Dept. of Natural Resource Conservation by consolidating MDC, DEM, DFWELE and DCS. L.
- III-14. Develop mission statement for DNRC. A.
- III-15. Initiate management study no later than December 31, 1989, to recommend most efficient management of DNRC Commissioner's office and how to align existing operating divisions and regions in DNRC. A.
- III-16. Delineate clear and efficient division of responsibilities between DNRC and Office of the Secretary and within DNRC. A.
- III-17.* Emphasize land acquisition and management for long-term ecological protection. A.
- III-18. Establish Office of Grants Administration in each Department with information outreach to cities and towns. A.
- III-19. Locate agency field offices in common regional facilities wherever possible. A., L.

FINANCING ENVIRONMENTAL PROTECTION

- IV-1. Initiate major funding increases to enable agencies to carry out existing mandates and staff capital programs adequately to spend bond funds expeditiously and efficiently. L.

Facilities

- IV-2. Adopt assumption that major environmental facilities will be paid for by users but continue a federal, state and local role in meeting initial capital costs. L.

a) Federal and state assistance for communities unable to fund facilities; compliance with federal and state laws required.

b) Preferred financing mechanism: low interest revolving loan fund. State grants conditioned on municipal compliance with operating requirements.

c) Require municipal borrowers to establish sinking fund for facility depreciation; finance fund through users' fees.

d) Finance solid waste disposal on town-by-town basis as required by practical difficulties of charging households pro rata.

e) Employ user fees to fund present and future operations of environmental facilities. State or federal taxpayer subsidies as required for remediation of adverse consequences of past facility operations.

f) Create mechanism for applying particular revenue streams to the financing of environmental facilities and cleanups. Generate additional revenues as alternative to use of general obligation bonds with proceeds used for facilities and cleanups.

g) Encourage municipalities, through financial incentives or otherwise, to develop regional solutions for sewage treatment, drinking water, recycling and disposal of solid and hazardous waste.

h) Fund pilot projects for innovative waste disposal and waste minimization through grants or low-interest loans.

i) Encourage opportunities for private financing and operation of facilities that meet all environmental requirements.

IV-3. Municipalities should be afforded greater flexibility in their attempts to deal with environmental finance. L.

a) Allow cities and towns to issue revenue bonds in addition to current general obligation bond authority.

b) Allow cities and towns to form pools to facilitate marketing of bonds.

c) Allow cities and towns greater flexibility to employ enterprise fund accounting without penalty in local aid distribution.

Pollution Minimization and Prevention

IV-4. To achieve the goals of pollution minimization and prevention:

a) Wherever appropriate in evaluating applicants, state loan programs should take into account degree to which hazardous materials minimization and reduction is achieved. A., L

b) Provide funding for and promote aggressively the Northeast Hazardous Waste Exchange. L.

IV-5. Increase household hazardous waste collection and education grants; fund through state Superfund.

Regulation

- IV-6. Parties who engage in activities that require environmental regulation by the state, such as development or pollution discharge, should bear the cost of regulation. A.
- a) Set permit fees for developers and pollution sources at levels reflecting actual cost of administering relevant environmental programs. Establish appropriate institutions such as dedicated funds to receive fees.
- b) Direct penalties from violators into General Fund, but allow environmental credit projects in appropriate cases.
- c) Institute pilot program to require or encourage use of certified private environmental auditors.
- d) Review amounts of civil penalties assessed and collected for violations of environmental laws. Fund fully administrative penalties staff; hire sufficient staff to hear all appeals.

Land

- IV-7. Develop long-term plan and budget for land acquisition (Office of Policy and Planning). A.
- IV-8. Impose local-option real estate transfer fee to establish land banks for land acquisition, park rehabilitation, and creation of affordable housing. L.
- IV-9. Charge reasonable fees for parking and camping where appropriate but continue to make outdoor recreation areas and facilities available to all citizens. A.

Cleanup

- IV-10. Improve collection procedures in state's cost recovery program; ensure recovery of full cleanup costs. A.
- IV-11. Secure hazardous waste disposal capacity contracts as required by SARA. Make Question 4 cleanup deadlines flexible in application to federal Superfund sites. A.

Knowledge

- IV-12. Fund fully the Center for Excellence in Environmental Science and Engineering, through tax-deductible donations or in-kind contributions from industry and education and research institutes. L.
- IV-13.* Survey research activities throughout state government, establish priorities and exercise oversight to achieve most efficient use of research expenditures (Office of Research, Testing and Standards). A.

PUBLIC PARTICIPATION AND OVERSIGHT

- V-1. Appoint five issue-specific Policy Advisory Boards. A.
- V-2. Retain statutory powers of Fisheries and Wildlife Board and Marine Fisheries Advisory Commission.
- V-3. Broaden public representation of Fisheries and Wildlife Board. L.
- V-4. Restructure Board of Environmental Management to function at program level. L.
- V-5. Establish authority to approve disposition of state lands for conservation, recreation or other environmental purposes in division-level boards. L.

- V-6. Appoint Council on Environmental Quality to oversee development and implementation of Environmental Master Plan and State of the Environment Report and to meet quarterly with Governor. E.
- V-7. Appoint Program Review Boards. A.

Appendix 2

DISSENTING OPINIONS and RECOMMENDATIONS

Recommendation III-9: *Restructuring of responsibilities for management of pesticides to alleviate interagency conflicts.*

Dissent: The undersigned disagree strongly with the recommendation to give DEQE the responsibility for pesticide regulation and enforcement. The SCEO should more specifically define "regulation" to exclude pesticide registration. DEQE can, in effect, regulate pesticides quite stringently by setting standards for pesticide levels in groundwater and surface waters. This would be an appropriate form of regulation for DEQE to exercise, but it has not done so. Rather than give an overburdened agency new responsibility which is unlikely to get adequate attention, the SCEO should direct DEQE to act on the powers it already has to regulate pesticides by setting Maximum Contaminant Levels.

We agree that pesticide regulation should not be conducted by the Department of Food and Agriculture. Legislation that would move pesticide registration authority from the Department of Food and Agriculture to EOEPA, under a Hazard Review Committee, has passed the House of Representatives. The SCEO should endorse this concept, rather than propose a disruptive "solution," one that has not been analyzed nor justified, and has no political support.

George Darey

Arleen O'Donnell

Esther Snyder

Recommendation III-9: *Restructuring of responsibilities for management of pesticides to alleviate interagency conflicts.*

Dissent: The undersigned strongly disagree with the Commission's recommendation that the Department of Food and Agriculture not register pesticides and that the responsibility for regulation and enforcement of pesticides should be within the purview of DEQE. The reasons are twofold:

1) The Commission's statement that "DFA has an inherent conflict in being both a regulatory agency and a promoter of agricultural interests" is a common misperception. Far more of the resources of DFA are spent on the regulation of agriculture (i.e., animal health, plant pest control, milk marketing, farm product regulations, state-owned farmland leasing, agricultural composting) than are spent on promotion (i.e., bureau of markets, Agricultural Preservation Restrictions (APR)).

2) DFA has an extraordinary track record in the regulation of pesticides. In recent years the Department:

- instituted a groundwater protection strategy;
- initiated the development of the inter-agency task force on groundwater protection;
- initiated restriction of ten widely used agricultural chemicals;
- was one of the first states in the nation to develop a state-funded Integrated Pest Management (IPM) Program;
- issued termiticide management regulations;
- implemented aerial application regulations;
- developed a program to manage application of lawn-care chemicals and provide a right-of-way management program; and
- expanded the role of the enforcement program to include criminal violations against applicators.

These initiatives are in direct comparison to the years when the regulations of pesticides languished while under the control of DEQE.

The other statement which is not properly balanced reads:

"Decisions concerning registration of a pesticide should give primary emphasis to the protection of public health and the environment."

This statement disregards the reason for which we register and use pesticides at all...we derive a benefit. When evaluating a pesticide as to its registration status you must consider the potential risks and the benefits of the product equally.

More effective pesticide management will not occur by placing the pesticide program within DEQE where it will be lost among the dozens of other environmental initiatives.

Marjorie A. Cooper

G. Montgomery Lovejoy III

Recommendation III-13: *To create a new Department of Natural Resources Conservation by consolidating the existing Metropolitan District Commission (MDC), Department of Environmental Management (DEM), and Department of Fisheries, Wildlife, and Environmental Law Enforcement (DFWELE).*

Dissent: The undersigned oppose a complete consolidation of these agencies for several reasons:

1. Each agency has its own distinct history and culture. If the agencies were combined, these histories and cultures would be submerged in the new Department and the morale of employees could be negatively affected.

2. Significant managerial energy will be consumed in carrying out the merger. We believe this energy would be better spent on substantive land management issues.

3. Strong land management agencies need strong political constituencies. We believe it will be easier to build and maintain constituencies with the existing agency structure.

4. Consolidation of agencies may result in the de facto shift of power from the Secretary to the new Commissioner. Land management issues will be more likely to be settled by the Commissioner rather than the Secretary. We believe this shift is in the wrong direction; every attempt should be made to reinforce the role of the Secretary.

5. Each of the land management agencies has a different mission. The MDC is primarily an urban parks and recreation agency. The DEM has a rural state park management role. The DFWELE protects fish and wildlife resources. The merger of these agencies would create a new organization with an extremely complex and diffuse mission.

6. Creation of a single agency puts all our land management eggs in a single basket. If management problems occur at the top of that agency, we will risk all of our public resources..

7. We believe that increased scale does not necessarily produce increased efficiency or effectiveness. To the contrary, we believe that smaller agencies may be easier to run. Small size is more conducive to "hands on" management from a Commissioner who can have a more detailed knowledge of the lands and personnel under his direction.

James Segel

Robert Weinberg

Recommendation V-2: *To retain the existing statutory powers of the Fisheries and Wildlife Board and the Marine Fisheries Advisory Commission regarding the work of their respective Divisions.*

Dissent: The undersigned members of the Commission offer the following dissenting recommendation:

The Commissioner of the (new) Department of Natural Resources Conservation shall appoint and remove the Director of the Division of Fisheries and Wildlife with the approval of the Board. The Director shall hire staff but not fire staff without the approval of the Board.

The dissenting recommendation is not a repudiation of the record of the Fisheries and Wildlife Board. It recognizes both the uniqueness of the Board's personnel authority and its effectiveness to date in its exercise of that authority. Rather, the dissenting recommendation is an expression of the principle that a department commissioner should have authority over and accountability for appointments at the division level within that department. To give a commissioner less is to diminish the administrative role and undermine the position of department chief executive. The dissent reflects the belief that the essential element in achieving such authority and accountability is a gubernatorial appointing process in which agency mission fulfillment is the paramount consideration.

Rita Barron

Arleen O'Donnell

Esther Snyder

Appendix 3

Purpose, Membership and Process of the Special Commission on Environmental Operations

In November 1987 Governor Michael S. Dukakis appointed the Special Commission on Environmental Operations which was authorized by the Legislature in response to the Senate Ways and Means Committee's report, "Agenda '90 - The Environmental Challenge." The Commission was created to review the state's approach to fulfilling its commitment to environmental protection. Specifically, our charge was to review the full spectrum of agencies and programs of the Environmental Affairs secretariat and recommend management, financial, and administrative plans as well as legislative actions to support environmental protection in the 1990s.

Membership

The private sector membership of the Commission includes representatives from business, labor, management, environmental science and engineering and environmental constituencies. Government is represented by the co-chairs of the Committee on Natural Resources in the General Court. Membership was designed to be broad-based in perspective and to reflect experience and knowledge of the issues facing government and the environment. A complete list of Commission members follows this section.

Process

The full Commission convened on a monthly basis with subcommittees meeting weekly. A first phase of four issue-related subcommittees identified problems and outlined initial recommendations to address them. Those subcommittees included: Air and Waste Management and Regulation; Water Resource Systems; Land Acquisition and Management; and Public Health/Environmental Protection Issues. Their work was reviewed and discussed by a second phase subcommittee on Organization and Management. Another second phase subcommittee on Financing Environmental Programs met concurrently.

The recommendations developed by the first phase and revised by the second phase of subcommittees were discussed and approved by the full Commission for public review and comment. The Preliminary Report and Recommendations were released for public review and comment on June 6, 1988, followed by six regional hearings. The Commission then reviewed its preliminary recommendations in light of the public's comments and voted on final recommendations which are contained herein. All recommendations represent the consensus of the Commission except where dissents are noted by individual members in the Appendices.

Members of the Special Commission on Environmental Operations

Paul E. Tsongas, Chairman
Partner, Foley, Hoag and Eliot
Former United States Senator (1979-1985)

Senator Carol Amick
Co-Chair, Joint Committee on Natural Resources and Agriculture

Representative Steven Angelo
Co-Chair, Joint Committee on Natural Resources and Agriculture

Al Alm
Alliance Technologies Corporation;
Former Deputy Administrator, U.S. Environmental
Protection Agency

Rita Barron
Former Executive Director, Charles River Watershed Association

George Berkowitz
Marine Fisheries Advisory Commission
President, Legal Sea Foods

Marjorie A. Cooper
Cooper's Hilltop Farm (dairy)
President, Massachusetts Agriculture in the Classroom

George Darey
Chair, Fisheries and Wildlife Board

Alexandra Dawson
President, Massachusetts Assoc. of Conservation Commissions

David Dow
Carpenters' Union

Liz Harris
Art dealer
Former consultant, agribusiness and new business

Laura Johnson
Director, Nature Conservancy, Mass./Rhode Island Office

Chung N. Lee
President, Cannon Boston, Inc., architectural firm

Vivien Li
Director, Governor's Office on Women's Issues
Former Special Assistant to the Commissioner, Massachusetts
Department of Public Health

G. Montgomery Lovejoy III
Vice President for Environment and Energy Programs
Associated Industries of Massachusetts

Douglas B. MacDonald
Partner, Palmer and Dodge
Former General Counsel of Massport
Author of legislation creating the
Massachusetts Water Resources Authority

Kelly McClintock
Executive Director, Environmental Lobby of Massachusetts

Arleen O'Donnell
Director, Education and Public Policy
Massachusetts Audubon Society

Herbert Ollivierre
AFSCME, Council #93, New Bedford

James Segel
Of Counsel
Hale and Dorr
Former Executive Director, Massachusetts Municipal Association

Esther Snyder
Former Executive Director
Association for the Preservation of Cape Cod

Dennis Tourse
Partner, Fitch, Miller and Tourse
Former General Counsel, Boston Water and Sewer Commission

Robert Weinberg
President, Friends of Post Office Square
Former Chair, Massport

DATE DUE

DATE DUE			
GAYLORD No. 2333		PRINTED IN U.S.A.	

NOAA COASTAL SERVICES CENTER LIBRARY



3 6668 14107 8743