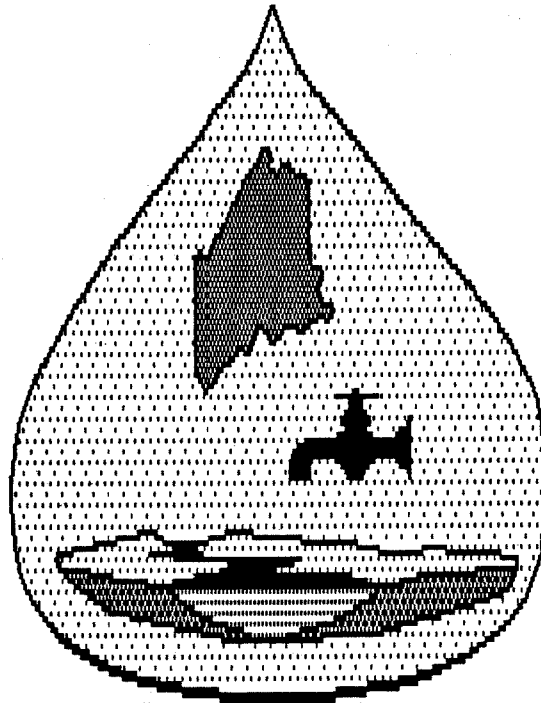


**THE OPERATIONAL FRAMEWORK  
IN MAINE STATE GOVERNMENT  
RELATED TO WATER RESOURCES  
MANAGEMENT**



**REPORT OF THE OPERATIONAL  
FRAMEWORK SUBCOMMITTEE  
MAINE WATER RESOURCES  
MANAGEMENT BOARD**

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MAINE WATER RESOURCES MANAGEMENT BOARD

January 25, 1991

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## CONTENTS

INTRODUCTION .....	1
AGENCY RESPONSIBILITIES .....	1
THE STATE/FEDERAL/REGIONAL PARTNERSHIP .....	3
MAINE'S CURRENT OPERATIONAL FRAMEWORK FOR WATER RESOURCE MANAGEMENT .....	4
ARE THERE FLAWS IN THE NETWORK IN THE FORM OF EITHER DUPLICATION OF RESPONSIBILITIES OR THE LACK OF COVERAGE OF IMPORTANT RESPONSIBILITIES? .....	5
DOES THIS NETWORK CONTAIN ANY "BRAIN AND/OR CENTRAL NERVOUS SYSTEM" THAT PROVIDE SOME ORDER AND DIRECTION TO THE COMPONENTS OF THE SYSTEM, OR IS THE SYSTEM EFFECTIVELY FRAGMENTED? .....	7
IS THE NETWORK AS A WHOLE FUNCTIONALLY ADEQUATE IN RESPONDING TO EMERGING WATER RESOURCES MANAGEMENT CONCERNS? WHAT ARE ITS ADVANTAGES AND DISADVANTAGES IN PROVIDING OR FACILITATING RESPONSIVE AND RESPONSIBLE WATER RESOURCES MANAGEMENT? .....	8
CONCLUSIONS .....	9
APPENDIX A	<b>Institutional Options for Water Resource Planning and Management in the State of Maine - by Susan H. MacKenzie</b>
APPENDIX B	<b>State Agency involvement in Water Resources Management</b>
APPENDIX C	<b>A Data Base of State Agency Roles Related to Water Resources Management</b>





## INTRODUCTION

The mission of the Operational Subcommittee is to identify and evaluate the current governmental framework in Maine relating to water resource management and optional permanent structures for the future. The Board's statute (5 MRSA Part 15-B) calls for a recommended strategy for a permanent bureaucratic structure for a centralized and coordinated state role in water resources management; a strategy for coordination of all state and local agencies involved with water supply management; recommendations regarding the appropriate extent and level of state regulation of water use and; development of technical assistance programs for municipalities, communities or individuals adversely affected by water use decisions. To help the Board fulfill these requirements, this report and its appendices identify: current systems, authorities, levels of responsibility and jurisdictions within Maine state government relating to water resources; shortcomings of the current system; objectives necessary for a permanent structure and; institutional options for effective water resource planning and management.

This report provides an overview of State agency responsibilities and the general ideals relating to water resource management institutions. It also provides an analysis of the current operational structure as it relates to water resources management. Appendix A provides an in-depth review of organizational options for water resource planning and management, including an overview of ideals underlying coordinated water resource planning and examples of organizational options drawn from strategies taken by some similarly-situated states. Appendix B provides a more detailed narrative of the responsibilities of each water-related agency. Appendix C identifies and explains the extensive information data base which has been compiled to provide a comprehensive accounting of the current framework, and includes a full text of agency roles tabulated in the data base.

## AGENCY RESPONSIBILITIES

There are twenty-two state agencies (including departmental bureaus) with some level of responsibility for water resources. These agencies are categorized as follows:

- 1) **Agencies which undertake or influence activities that directly affect water quantity and quality.** These agency activities include:
  - Interagency coordination of water resources management policies;
  - Interagency assistance in developing water resources management policies;
  - Enforcement of water quality laws;
  - Management of water data; and
  - Emergency water pollution response/clean up.

2) **Agencies which indirectly affect water quantity or quality.** Some of such agency activities are:

- Interagency coordination of policies regarding activities which affect water resources (ie. land use regulation);
- Regulation/Permitting of activities which may affect water quantity or quality (ie. shoreland zoning);
- Consultation to agencies in permitting/licensing activities which affect water quality/quantity;
- Acquisition of property associated with water resources;
- Land Use Planning;

3) **Agencies which may directly or indirectly affect water resources in limited geographic jurisdictions within the State.**

- For example, the Land Use Regulation Commission has extensive authority over water-related activities in the unorganized territories of the state, but has no such authority in the organized towns.

To comprehend the current organizational setting in Maine government, it is essential to understand the roles of agencies falling into any of the above categories. While some agencies may be more visible in the context of water resources management, understanding the roles of other agencies is no less important in determining what really happens in the "big picture". Changes in the law or administrative policies of one program can significantly affect the entire water resource management picture, regardless of whether the program is within a "water agency". For example, the Office of Comprehensive Planning has vast responsibilities related to municipal comprehensive planning; local water resources planning is only one component among many. Yet, this agency can dramatically influence the nature and effectiveness of water resource planning and management statewide based on what investigative and analytical criteria it requires in the water resources planning component of local comprehensive plans.

Understanding the involvement of all agencies is also very important in developing policies to achieve a coordinated approach to water resources planning. A centralized coordination strategy that fails to recognize the influential roles of agencies that may not be identified as the "primary water agencies", will only be partially effective in fulfilling its coordination and integration objectives.

## THE STATE/FEDERAL/REGIONAL PARTNERSHIP

Although the focus of this report is upon the roles among agencies within or formally tied to Maine State government, the roles of federal agencies should not be overlooked. Federal agencies comprise an integral part of Maine's water resource management scenario. A number of federal agencies, including the U.S. Geological Survey, the U.S. Soil Conservation Service, the Corps of Engineers, the U.S. Environmental Protection Agency, the National Weather Service, the U.S. Fish and Wildlife Service, the Federal Energy Regulatory Commission and Federal Emergency Management Agency not only affect water resources management in Maine, but have a substantial impact in shaping Maine's operational framework. Many work directly and routinely with state agencies in water-related activities. Their involvement includes information exchange, joint cooperative resource studies, technical assistance, cooperative data management, and funding and oversight of water-related programs supported by federal grants.

There are eleven regional councils serving all 493 municipalities, as well as the unorganized territories in Maine. Regional councils are agencies that are created by and serve Maine municipalities, as authorized by Maine Law. Regional council include both regional planning commissions (RPC's) and councils of government (COG's). These two types differ most notably in that COG's may have almost all the implementation and regulatory powers of municipalities, whereas RPC's function primarily as planning agencies. Municipalities rely on regional councils to assist them in carrying out state and federal mandates related to land use and resource protection.

Regional councils in Maine have long been associated with land use and water resources planning, and have been associated with numerous state and federally funded water resources planning programs. They are often called upon to be both a research/planning agency in formulating plans and as an implementation agency - helping the municipalities carry out measures called for by the plan. With regard to water resources management, current regional council activities include:

- Developing regional policies in water resource management and protection as part of Maine's Growth Management Law.
- Assisting communities in addressing local measures to protect the quality and quantity of water supplies as part of Maine's Growth Management Law.
- Working with the Department of Environmental Protection in preparation of local technical assistance programs for municipalities in the areas of groundwater and surface water protection.

## MAINE'S CURRENT OPERATIONAL FRAMEWORK FOR WATER RESOURCE MANAGEMENT

Water resource planning and management is policy making where agencies, laws and political interests converge. The physical attributes of water create substantial uncertainties for agencies which attempt to balance the disparate and sometimes conflicting public and private demands for water use. The highly diverse institutional structure for managing water resources frequently inhibits comprehensive management.

A number of problems are associated with fragmentation of institutional responsibility. They include overlaps and gaps in authority, poor coordination and communication; reactive rather than proactive public policy; and unresolved conflict. As a result, some of the contemporary water planning themes throughout the United States include:

- The need to balance multiple water uses and users;
- A desire for comprehensive and integrated water planning;
- A need for proactive rather than reactive policy; and
- A need for improved intergovernmental and interdisciplinary cooperation.

Because so many agencies in Maine affect water resources in numerous ways and through a variety of activities, Maine's so-called "operational framework" is largely inextricable and difficult to fully characterize. As illustrated by the expansive list of agency roles provided by Appendix C, perhaps the most important characterization of the current organizational framework is that it is amazingly broad, intricate and complex. Our "framework" is comprised of relatively small bureaucracies with specific mandates related to specific water management concerns. While most of these individual programs and their processes can be depicted by flow diagrams, the important inter-relationships and intricacies among the roles of state agencies, overall, are not conducive to modeling by simple flow charts or interaction matrices.

Maine's organizational framework may be best characterized as a complicated "web" or network of responsibilities and interactions. This web involves many agencies who enter and exit the network according to jurisdictional and functional constraints and, by the nature of their unique programs, may affect water resources directly, indirectly or in both ways. Following this "web" analogy, this analysis concentrates on three fundamental questions:

- Are there flaws in the network in the form of either duplication of responsibilities or the lack of coverage of an important responsibility?

- Does this network contain any "brain and/or central nervous system" that provide some order and direction to the components of the system or is the system effectively fragmented?
- Is the network as a whole functionally adequate in responding to emerging water resources management concerns? What are its advantages and disadvantages in providing or facilitating appropriate water resources management?

These issues are examined separately below. Of course, they are interrelated, and, therefore, there is a great deal of overlap.

ARE THERE FLAWS IN THE NETWORK IN THE FORM OF EITHER DUPLICATION OF RESPONSIBILITIES OR THE LACK OF COVERAGE OF IMPORTANT RESPONSIBILITIES?

Given the array of responsibilities among state agencies, it is difficult to determine completely what "gaps" and "duplications" currently exist. No doubt there are instances where one might find it difficult to locate the right agency to deal with a specific question or problem, but often these are a result of simply not knowing which agencies do what. Nevertheless, comparison of Maine's programs with those of other states or against the water management issues that will need to be addressed in Maine, suggests there may be some important flaws:

- A. In most policy areas, there are no coherent lines of responsibility are established with regard to who shall act as liaison or coordinator with federal, regional or local programs. Today, coordination responsibilities are generally associated with specific state, federal, regional and/or local programs, linked by virtue of grants or other joint funding and staffing arrangements. These activities usually involve only the agencies that are parties to the specific arrangements. Thus, a substantial amount of intergovernmental coordination is in the form of "contract" negotiations between grantor and grantee agencies or efforts to apportion responsibilities for particular research projects or management programs.
- B. Given the array of agency responsibilities, it should not be surprising that some duplications of roles occur within the state framework. Examples include: DEP/LURC regulation, permitting and enforcement responsibilities to the extent that they still require joint hearings, regulatory and enforcement actions; DEP/DAFRR water quality monitoring and enforcement responsibilities; and the existence of both a DHS and a DEP water quality laboratory. Although these may be relatively minor and tolerable duplications (and some may be necessary to meet legal or fiscal requirements), they illustrate the need for agencies to know how responsibilities are allocated among various agencies and programs. When all agencies share complete

knowledge of the responsibilities among them, there is less chance that any single agency should feel inclined to make costly modifications or expansions to its own programs in a way that may duplicate another agency's activities.

- C. State agencies have generally not developed either short-term or long-term water resources planning capacities beyond those required of the grant-recipient agencies. As a result, dedicated monies tend to dictate the nature and agendas of water planning programs. Generally, there will be an increasing need for proactive, in addition to this "reactive" planning.
- D. There are no State agencies responsible for developing policies and objectives regarding water resource development options that might provide economic benefit to the state as a whole. As a state, Maine has not considered either developing nor taking advantage of markets that would utilize the abundance of Maine water sources. Some have suggested that Maine's abundant water supplies should be viewed and managed as potential sources of revenue enhancements for the State and its people; at the least, they should be guarded as assets.
- E. Although the U.S. Geological Survey evaluates water use and supply in Maine, there is no state or sub-state agency responsible for evaluating water supply or consumptive use data in order to determine where water resources may be in critical supply and develop water use/management priorities for these areas. Further, there is no policy guidance from the state on how these priorities might be fashioned. For example, to meet emerging needs for consumptive use, should policies favor supply-side management, e.g., tapping additional water sources or should they favor demand-side management, e.g., conservation efficiencies, or some combination of both approaches?
- F. There is no agency responsible for monitoring consumptive water use by private industry, nor would any agency be able to require industries, water districts, bottled water companies, or anyone else, to report water use or conform to appropriate water management principles. As a result, there is, and will continue to be a lack of critical information about Maine's largest sector of consumptive water use, which will make it impossible to determine the relationship of water supply to water use in many water basins. Without the benefit of this knowledge or the ability to set any controls on industrial, commercial, public supplier or any other, consumption of water, it will be impossible to effect a fair and balanced allocation among all users, including the industry, in the event of a water shortage in a shared source.
- G. No agency is currently responsible for performing, requiring, or assisting municipal water suppliers in water demand forecasting. As a result, there is no program in state government that attempts to determine whether water resources, particularly in areas of potential human growth or of known supply limitations, will meet reasonably anticipated future needs. We also note that the current growth management law requires regional assessments of water supply and demand and requires municipalities to develop regional programs

to address natural resources of greater than local significance. Yet, there is no state-level mechanism to coordinate or assign responsibilities for assisting with these assessments.

- H. There is no mechanism to assure that public water suppliers coordinate with the municipalities they serve, in preparing and carrying out land use and comprehensive planning.

DOES THIS NETWORK CONTAIN ANY "BRAIN AND/OR CENTRAL NERVOUS SYSTEM" THAT PROVIDE SOME ORDER AND DIRECTION TO THE COMPONENTS OF THE SYSTEM, OR IS THE SYSTEM EFFECTIVELY FRAGMENTED?

In effect, there is no centralized and coordinated approach to water resources management in Maine State government. Given the specific mandates, perspectives and disciplines of the multiple agencies involved, it is difficult to foster ongoing policy coordination, problem solving and general interaction among all agencies involved in water resources. While there is a lengthy list of agency responsibilities and activities that might on the whole cover the major water management issues, this collection does not of itself comprise an aggregated, comprehensive or coordinated approach.

In Maine, multiple agencies are directly involved with many water-related topics including: water conservation; surface water protection; non-point pollution control; groundwater management and protection; river basin management; instream flows; wetlands; water-based recreation; hydropower facilities; dredging activities; land use regulation; comprehensive land use planning; wellhead protection; watershed districts; river corridors; erosion and sedimentation control; and pesticides. Yet, only three of the above topics (hydropower facilities, comprehensive land use planning and river basins), are in practice subject to formal interagency coordination, facilitated by a multi-disciplinary agency. The rest are not.

Policy development related to specific water resource issues is occasionally delegated to an agency through legislation (i.e., to the designated permitting or planning agency). But for most issues, policy development is undertaken by a self-appointed or otherwise informally designated "lead agency". The policy responses usually occur in the form of rulemaking, permitting decisions, development of legislative initiatives or strategies that focus primarily on that agency's particular programs. Such policy development can be inordinately shaped by the procedures, disciplines and perspectives represented by the lead agency: a regulatory agency's response to a resource management problem is likely to be a new regulation or statute; a resource planning agency's response is likely to be a new planning process; and a resource monitoring and/or data collecting agency's response is likely to be a request for funding additional field studies. The resulting policies or policy recommendations may or may not benefit from the input of other affected agencies, and when such input is sought it may or may not be not given equal weight to the priorities or mandates of the "lead agency".

For many water resource management issues, the "lead agency approach" to policy development can never achieve the necessary integration and coordination among agency programs. For example, comprehensive river basin planning and policy development cannot be done solely by one of the regulatory agencies or by one of the resource planning and management agencies, because no single agency is responsible for all the important aspects of river basin management. By definition, a comprehensive approach to water resources planning and management, should provide a balance among multiple uses and integrate the perspectives of all affected agencies and disciplines. It cannot be devised by just a fisheries management plan, a water quality management strategy, a recreational management plan or any other product of a singular mandate or discipline. There is a host of other interests (i.e., energy planning, transportation, growth management, solid waste, etc.) that require other essential participants.

IS THE NETWORK AS A WHOLE FUNCTIONALLY ADEQUATE IN RESPONDING TO EMERGING WATER RESOURCES MANAGEMENT CONCERNS? WHAT ARE ITS ADVANTAGES AND DISADVANTAGES IN PROVIDING OR FACILITATING RESPONSIVE AND RESPONSIBLE WATER RESOURCES MANAGEMENT?

Having many agencies with water-related responsibilities, one clear advantage of Maine's current framework is that the state has the in-house ability to deal technically with a wide range of water management issues. Generally, the agencies carry out their programs and mandates well. Further, among the agencies is a vast array of human resources that, taken together, provide a strong and diverse arsenal of professional knowledge and experience. These include: aquatic biologists, fisheries biologists, ecologists, foresters, soil scientists, resource managers, hydrologists, geologists, engineers, inspectors, lawyers, planners, project analysts and policy development specialists. Although these disciplines and backgrounds are not all represented in any single agency, if properly mobilized and coordinated, Maine has the professional resources required to generate and carry out a comprehensive approach to planning and managing water resources.

One major disadvantage of the current arrangement is its fragmentation which can hinder coordination and teamwork among agencies and programs. Having a wide range of perspectives does not assure that they will be brought together in the end to formulate and implement policy. Since often there is no single water management or policy coordinating agency and, except in a few cases, no formal policy coordinating mechanism, there is no guarantee of consensus among agencies on water management issues. Further, there seems to be few regular and systematic attempts by the involved agencies to unify policy priorities. Some agencies may be only casually aware of the water related responsibilities of other agencies and that other programs may affect, or be affected by, their own endeavors. A sense of the big picture is, at times, lost at the implementation level, where the agency is accustomed to viewing and defining water resource management issues through its own prism.



Another disadvantage of the current framework is that it may not be equipped to provide a proper balance of reactive and proactive policies, largely because it lacks a framework for information gathering and sharing with the public and other levels of government on the broad water management issues. While there are numerous opportunities through administrative procedures for the public to address specific programs or proposals, there is no "citizens/inter-governmental/intra-governmental advisory commission" to serve as a means of gathering information or ideas from outside sources, or as a sounding board for thoughts about emerging issues about how policies should be created or revised, or about how responsibilities should be shared between the state agencies and others.

## CONCLUSIONS

The current organizational structure and the scope of water-related responsibilities carried out by Maine State agencies provide many effective and relevant water resource management functions, although they are quite fragmented among the agencies. Creation of a single water management agency to consolidate and supplement these responsibilities would, no doubt, be very costly and perhaps unnecessarily disruptive. Yet, some fundamental modifications to the current framework may be necessary to provide a proper and effective array of water resource management activities at the state level. There is clearly a need to bridge the diverse water-related programs and create an agency structure to carry out some key unmet water resource planning and management responsibilities.

The unmet needs identified in the previous sections of this report suggest a new agency structure capable of carrying out administrative, planning, interagency coordination and conflict resolution roles. More specifically, this agency structure should be designed to:

- Provide coordinated assistance to the Legislative and Executive Branches in their development of water management policies.
- Provide an appropriate forum for negotiation and mediation of water-related disputes to achieve a reasonable balance among competing uses.
- Identify and designate areas of threatened water supplies that should receive priority for water resource planning and management activities and establish guidelines and requirements for water resource planning where needed, and provide planning coordination and technical assistance.
- Provide a forum for identifying and addressing emerging issues, and a process to improve the gathering and sharing of water resource information among state, federal, regional and municipal programs and the public.



- Foster coordination of water-related policy development and program activities among state agencies and serve as a nucleus to organize and mobilize interagency resources when needed to address water planning and management issues and to provide technical assistance where needed.

Even though the responsibilities above are potentially vast, at this time the best option appears to be the creation of a relatively small unit, consisting of a citizens board and small staff. This would be similar to the current Water Resources Management Board in terms of funding and staff support. Such a unit should be able to effectively carry out the above responsibilities for the next few years. As demands increase in the future, this unit will need to grow to meet those needs.

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