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Conserving a Wilderness River in a Northeastern Forest Region

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CONSERVING A WILDERNESS RIVER

IN A

NORTHEASTERN FOREST REGION

BY

JOHN MANTER

A Research Project Paper submitted in Partial Fulfillment
of the Requirements for the Degree of

MASTER

IN

COMMUNITY PLANNING

1985

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ACKNOWLEDGED:

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I would also extend my appreciation to those other faculty and classmates within the Graduate Community Planning Curriculum for their encouragement and their own prodding of me to complete this project.

Lastly, I should like to thank Ms. Eileen Cook for her professional production in working with this paper for submission to the University of Rhode Island.

DEDICATION

To my parents who were instrumental in making this paper possible, and encouraged me in my academic pursuits;

and

to the people of the Republic of Suomi-Finland, who showed me that sanity could, indeed, exist in an otherwise insane world during 1973 and 1974.

Chapter I

INTRODUCTION

Rationale

North America's eastern rivers have played a vital role in the development of both nations ensconced on this continent. Nowhere is this role more evident than in the northeastern state of Maine. Despite its association with maritime pursuits and the lore of the "rock-bound coast", Maine developed historically along its rivers. Rivers provided transportation for the aboriginal American, European explorer, early settler, ship builder and logger. Today these rivers serve as a resource for some industries and provide some electric power.

The former wild river systems in the United States' eastern region are now largely settled. Only in northern New England are there any remaining systems which can be considered to flow through relatively uninhabited areas. Maine is uniquely sited in that the last of these river systems, which eventually reach the Atlantic Ocean, course its eastern counties. Presently, one of the most significant systems are the three branches of the Union River which is located in Hancock County. The importance of this river system is that it is one of the last whose watershed is in an area which is still largely open space, sparsely inhabited, and proximal to the ocean.

Clifford and Isabel Ahlgren, in their study of the Boundary Canoe Area of northern Minnesota, have noted that "... The efforts to preserve the elusive quality of wilderness experience and its even more elusive biological state are presenting challenges far greater and more difficult than the challenges faced by those who originally sought to tame the border lake country and harvest its resources..."¹ The same could be said for Maine's wild river systems. The Ahlgrens, in defining wilderness, have acknowledged prior human exploitation: "...our definition must include this past trammel and heavy use of the area..." This challenge will be addressed in this paper with respect to the future preservation/management of the Union River as a wild river system.

This chapter will examine the problem setting of the area in question, defining this area and outlining some basic problems. The purpose of this paper will be discussed to illuminate the assumptions on which this is based, the options available and the criteria for their selection, and an outline to an approach to the problem as it will be addressed.

Problem Setting

The region of eastern Maine where the Union River is located consists of low mountains, hills, assorted wetlands and the common denominator of Maine: extensive forest

lands. The Maine Department of Conservation, in cooperation with the U.S. National Park Service, published the Maine Rivers Study in 1982, a list of the unique natural and recreational rivers, and classified the West Branch of the Union River as a "B" river: found to possess a composite natural and recreational resource value "...with Outstanding Statewide Significance."² The East and Middle Branches are classified as "C" rivers: found to possess a composite resource value "...with State-wide Significance." The problem setting of this river system, with respect to its protection and management will be discussed in this section.

The river system, located in Hancock County, Maine, touches upon or passes through the following organized communities: Great Pond Plantation, Amherst, Aurora, Mariaville, Osborn, Waltham and Eastbrook. Some organized townships are included, in part or in whole, in the watershed area. As is wont with New England communities, all the organized townships have their municipal governments and regulations, with little cohesive direction from county or regional authorities. The protection provisions for wetlands will vary among the communities as well as the commitment to protect or manage the river resources. The communities' attitudes toward river management will be explored in a subsequent section (see Figure 1. Study Location Area).

The existing land use is largely in commercial forestry. The management of this resource area is in the hands of the principal land owners, two major corporations being the Diamond International Corporation of Old Town, Maine, and the St. Regis Company of Bucksport, Maine. The management direction of these firms reflect their primary objectives, which are to raise, maintain and harvest the natural resource upon which their operation is based - pulpwood. The paper corporations use of the watershed will be examined in a chapter below in order to illuminate the objectives behind their managerial rationales. The impacts of this use will also be examined as these related to the Union River (See Figure 3. Forest Land Ownership).

Purpose

The purpose of this thesis project paper is to formulate a practicable set of managerial options for maintaining the Union River system in its natural state while meeting the economic objectives of the bordering communities and the major corporate landholders in the watershed. Here, the framework of such a set of options must be defined in which these may operate.

The most recent draft of the Union River Management Plan, produced through the Hancock County Planning Commission for review by the interests involved with decisions on the river system, noted '...a lack of

coordinated planning programs to ensure the protection, enhancement and development of the (river) corridor's outstanding resource and environmental potential...'³ A serious effort to maintain the Union River system will require such a planning effort, with input from the State, County, and local levels, the corporate landowners, recreational and citizen interests, as well as professional planners and naturalists.

Growth in the region may bring pressures for development in the local area of the river system. The basic problem is to channel these pressures around the watershed. The definition of the Union River system must include its watershed. The current laws regulating wetlands protection in Maine are fragmented, often inadequate and sometimes unenforceable, ineffective for the purposes of managing this river system.⁴ Any managerial schemes must, of necessity, build on this shaky legal framework, coordinating these into a workable support for the purposes intended here.

The rationales for preserving the Union River must be clarified to all involved if any managerial option is to achieve widespread effective local support. Lloyd C. Ireland (1979) has suggested four such rationales in a recent volume, Wilderness Economics and Policy:

- 1) Natural areas provide "libraries of information" which can be resorted to for more detailed ecological

understanding at any time.

2) These can serve as ecological monitoring stations, helping scientists detect broad environmental changes such as effects of temperature or pollution.

3) Ecological baselines against which to compare the effects of man's manipulations.

4) As an aid to land use planning by identifying landscape features that deserve preservation.⁵

BACKGROUND and ISSUES

History

The historical background of the region is useful for tracing present-day development patterns. The Union River's watershed area, when originally explored for "mast" trees for the British Royal Navy, was part of the hunting grounds of the Penobscot and Passamaquoddy Indian tribal groups. After the American Revolution the area was settled by small-scale farmers. Later in the 19th century, when Maine became a major timber exporter, the region's timber was harvested. The river system served as a transit line for moving this harvest to marshalling points for oceanic transshipment. Farming and lumbering form the backbone of the economy to this day. With the exception of tanneries, the region has never seen extensive industrial manufacturing.

Riparian Communities

The communities in the watershed region have no policy, individually or collectively among themselves, as to the use of the river system. The year-round population of the area numbers about 1,000 persons, expanding to 2,000 people on a seasonal basis. The topography, as noted above, is generally hilly; low mountains and hills form a perimeter which is the Union River system's drainage basin, a result of glacial modification, marine intrusions and subsequent weathering twelve to thirteen thousand years ago. Hancock County ranks eighth among Maine's 16 counties in land area (983,700 acres) and the land cover which affects the economy is forest (908,900 acres). The communities in the Union River region, after a decline in population since the early 1900s, have, since 1970, seen an increased number of residents.⁶ (See figures 2 and 6, Union River Drainage Basins and Natural Regions and Subregions of Maine by Minor Civil Divisions, pp. and , respectively).

Resource Extraction

There are presently 1,547 acres of developed land in the Union River watershed region, approximately 1% of the total area. Ireland has noted that most of the U.S.'s ecologically-significant undeveloped wild lands are considered part of the raw material supply for resource-

dependent nearby communities. The area under consideration has been managed for timber harvests for over forty years, and exploited without serious management since pre-Revolutionary times. The lands have been penetrated by logging roads; such an area is part of the wilderness legacy of Maine. The present major landowners wish to continue utilizing the watershed for resource extraction to supply their paper industries. Since the local economy is dependent on this land use, any managerial options for the Union River system must account for the continuation of this use and its effect on the watershed area.⁷

Local Interests

Recently, strong local interest in protecting/managing the river system has not been in evidence. Recreational use of the rivers have not increased substantially, and community sentiment for an Allagash-type wilderness waterway is definitely negative. The major constraint to development in the area, instead of soundly-planned zoning/subdivision regulations based upon a community master plan, is its geographic remoteness and general unsuitability due to climate and terrain. Soil types suitable for septic systems rest in only a small percentage of the area. Discussion of community attitudes based upon the writer's observations of public hearings on the Union River system will be offered in a subsequent chapter. Any

attempt to protect the Union River must (a) motivate local interest and/or action, or (b) provide means to effect a management scheme for the region in the face of local disinterest.⁸

Values

A principal issue will be addressed in this chapter. The dichotomy of use is often defined in terms of wilderness recreation enthusiast versus the forest resource user. The former group tends to be disproportionately drawn from among higher income groups, professionals and urban dwellers with collegiate educations. The "yuppies" of the 1980's society ...The forest user makes a working-middle class income from the products of the forest; this user may not interact directly with the wilderness itself: 28% of Maine's manufacturing employment is accounted for by wood industries. The value set varies sharply between the two categories of users: the wilderness enthusiast is often a preservationist who derives some small spiritual pleasure from contact with the natural outdoor setting; by contrast the resource user derives a livelihood from the products harvested from the wilderness area. While these categories are extreme, and many individuals' attitudes fall in a range between the limits of this spectrum, the two schools of wilderness management/preservation are illustrated here. Given that a community's ability to

absorb a reduced timber harvest being based upon the degree of dependence on the wood-using industry, the localities in the Union River's watershed are unlikely to view the management problem from a preservationist's aspect.⁹

Problems

Some basic problems will be explored which directly affect management options for the Union River system. Another example of a wilderness waterway in Maine is often indicated as an illustration of river management: the Allagash Wilderness Waterway in northern Maine. This area has also been a wood products resource area. However, the designation of the region as a wilderness waterway by the State in the early 1970's did not solve the managerial problems. Logging roads continued to expand and were heavily used by the motorized public and resource harvesters, exposing the wilderness enthusiast to the environment of a working woodland.¹⁰ The population of the Union River watershed, with knowledge of the Allagash waterway, are not enthusiastic about this kind of management in the river system and the numbers of recreation enthusiasts attracted.

The underlying basis for objection to the Allagash Wilderness Waterway has been recreational overuse. As Roderick Nash noted, "...The gravest threat to America's wilderness will not come from the traditional enemies (the

economic developers) but, ironically indeed, from its newly acquired friends..." The fear of the local Union River watershed residents is the overcrowding of the river system and demands created on their limited municipal facilities. The nation-wide trend to wilderness area recreation has increased the canoeing population on many waterbodies.¹¹

Still another problem is the effect of recreational use on the ecosystem itself. Minnesota's Boundary Water Canoe Area has suffered most use pressures along well-travelled routes. The majority of the 1,000,000 acres of the area is largely untouched. Shorelines, islands, proximal trails and campsites bear the heaviest pressures of wilderness enthusiasts there.¹²

LITERATURE STUDY

The next chapter will pursue a review of the literature examined in the course of this study project. The literature has been divided into four categories based upon the subject matter as these relate to the central purpose of this paper. The categories are: general works, regional background sources, legal documentation and case studies of specific river preservation/management projects. These categories are subjected to elaboration below.

General

These sources are consulted in relation to the rationales or purposes for the study project conducted herein. These works include general treatment of wilderness management concepts, philosophical references to wilderness preservation themes and general information pertinent to the purposes of this paper.

Regional

Regional sources were consulted for background material on the study areas of the Union River system. These sources deal with the State of Maine, the eastern Maine-Hancock County region and the Union River watershed itself. The purpose of these works is to provide background/historical material referring to the area of the study in order to build an understanding of the region and its problems.

Legal

Several sources of legislation which refer to wilderness preservation, river protection, environmental regulations and planning aspects are included in the bibliography for this paper and in the appendices. National legislation is referred to as a guide to purposes of the management option as well as sanctions on the government levels. Maine wetlands statutes are analyzed

for their application to protecting the Union River system, and recent Maine Rivers legislation is examined for its impact on the problem focus. Local zoning ordinances which pertain to the Union River's watershed are also examined for their influence in the study area.

Case Studies/Management

A series of case studies have been collected which deal with management schemes for rivers in different portions of the United States. These case studies are analyzed for their managerial directions and recommendations, applicability to the Union River situation and suitability to the unique problems posed in the study area. The results of this part of the study are the "meat" of this paper. The basic directions for managing the Union River system are determined from an examination of these cases and an evaluation of the suitability of these to the watershed area.

DIRECTIONS

The purpose of this section is to frame the options to be considered for the protection/management of the Union River watershed system. These series of considerations discussed here must be addressed in order to meet the objectives of any preservation/management scheme directed to the study area. The options selected will be examined

in the final chapter of this project paper, along with their rationales, criteria for selection and requirements for implementation.

Control

Control of the managerial process is a critical question. The local attitude, which tends to be Maine-wide, is a distrust of Federal intervention into State or local affairs. However, as the example of the Allagash Wilderness Waterway has shown, effective planning and action, as well as sufficient resources are needed to protect and manage a wilderness area of any size. Some of the Allagash Waterway's lack of appeal to the residents of the Union River region as a management option example may have evolved from the Maine Yankees' characteristic suspicion of Federal involvement; such an attitude is especially noted in eastern Maine - long a Republican party stronghold in the State.

Planning

Some planning aspects need to be explored here. It has been recognized that attention to the complicated interplay between ecosystems to avoid the impoverishment of the forest landscape associated with the systematic management of large units is necessary. There is a growing trend toward management plans by the use of systems

analysis and models based on assumptions and use surveys that do not take long range changes into consideration, and principles derived from other, largely western U.S. ecosystems. The planner and manager of the Union River ecosystem will have to work with what is and not models based on assumptions from the past, helpful though these may be in indicating planning directions.¹³

A critical planning task will be the definition of a boundary to determine the extent of the resource to be protected. The purpose of this task is to create linkages between the communities in the Union River watershed related to managing this river system. This local government coordination will be important to insure that the future use of land and water resources will be managed from a common policy base integrated into the existing town plans, as well as to prioritize those areas within the river corridors requiring special protective measures. Opportunities exist for coordination with State agencies and these must be utilized prudently and in concert for the benefit of the Union River system.¹⁴

An issue that must be determined is the limitation of the use of the river area as a resource, both by wilderness enthusiasts and forest users. Gifford Pinchot, creator of the U.S. Forest Service under the administration of President Theodore Roosevelt, judiciously noted that sudden changes of condition should be avoided by the use of

gradual adjustment after due notice to parties involved. An approach used in the management of the Upper Delaware National Scenic and Recreational River to deal with wilderness enthusiasts is a phased development program: an initial phase of orientation and education is followed by one with a permitting process for river facilities with operating standards and procedures. The effectiveness of these phases determine if more restrictive measures to insure visitor safety and compliance will be necessary.¹⁵

Use limitations can be designed to protect both the wilderness environment and the recreational opportunity. Conflicts between motor and more "purist" canoe travel must be decided. Litter, a complaint of the Union River area residents, must be controlled, and, if possible, be eliminated. A basis for determination for wilderness enthusiasts' use limitation may be a concept of "carrying capacity" - use patterns developed for a maximum number of people in the area while avoiding congestion and adverse environmental impacts.

Forest Management

The other users of the Union River watershed - those who derive an income from the forest - must also be considered with regard to use limitation. Since the paper corporations are major land owners, their use of the area presents different problems of use restrictions. The

technical problems presented by resource limitation are not insurmountable. Flexibility of management exists in most eastern forests for temporarily compensating for any harvest reductions by harvesting outside of wilderness areas. Approximately one-third of all Maine forest land is held by small private owners. Some difficulties might be encountered in obtaining substitute timber from fragmented private holdings. Three long term approaches could compensate for any reduction in wood harvesting in the Union River watershed: 1) growing more timber on other highly productive commercial forest areas; 2) use of the harvested wood more efficiently; and 3) restricted backcountry management in the watershed itself, emphasizing natural wood growing practices and wildlife and watershed protection programs. The continuation of limited wood harvesting in the Union River watershed is possible through individual planning for resource protection of each area within the system.¹⁷

The chapter has laid the foundation for the remainder of the paper. The rationale for protecting one of the last sparsely inhabited wilderness river watersheds proximal to the Atlantic coast has been discussed. The background to the region was described and the purpose stated. The organization for the paper is outlined into the four categories: literature review, background issues and problems, review of options and recommendations. Some of

the problems and directions related to the purpose of this paper are provided. The principle task from here on is to provide a coherent discussion of the problem leading to a viable set of approaches reflecting the situation of the Union River Watershed System (URWS).

Chapter 2

REVIEW OF THE RELEVANT INFORMATION SOURCES

Introduction

A review of the relevant literature is necessary to understand the sources on which the analysis of the problem and the evaluation of the managerial options discussed below in a further chapter are based. The organization of this chapter for the separate categories will follow an outline format of a discussion of limitations, criteria, the literature categories described and a reflection on the purposes and contributions.

Criteria

Several different sources were reviewed for this study project. The criteria for inclusion in this paper are the following: reference to river protection, preservation, conservation and/or management; area, regional and/or State background references; and supporting materials or reference sources.

River protection, preservation, conservation and management are the central focus areas for this paper. Sources focusing on these areas were sought out and examined. The locations cited in these sources were sifted for regions similar to the Union River watershed area. Urban river systems, river areas in tropical or desert

terrains or those systems subjected to intensive agricultural uses received less emphasis.

Materials were sought on the eastern Maine-Hancock county region. Some reference sources of a Maine-wide interest were included as these applied to the study area. Sources dealing with history, physiographic description and local problems are included as well. The writer also provided notes taken while observing hearings held by the Union River Advisory Committee on the study report assembled by the Hancock County Planning Commission during the summer of 1984.

Other supporting materials are also included as these pertained to the focus of this study project. Legal references to conservation, especially as these applied to rivers, were sought. Forest management practices were studied, and the paper corporations behavior were also reviewed. Sources dealing with general conservation are of a more philosophical nature than being strictly scientific; some references to economic aspects of wilderness management are also included.

Limitations

Literature relevant to this study are subject to three limiting characteristics when scrutinized. These limiting factors are apparent and must be taken into consideration in any similiar study.

The objectives of the sources varied, not only among categories, but among the different sources individually. Particularly among materials examined for managerial options the objectives of studies and recommendations differed with regard to level - local, regional, state or federal - uses, resources, etc. The objectives of these latter sources have to be discerned carefully if these are to form a useful part of any study.

Regional characteristics of different river situations also vary. Some rivers on the east coast are influenced by urban or intensive agricultural locations, these latter influences being a factor especially in the midwest. Terrain and climate factors play a role here, the principal influence on the Union River system being its extensively forested, sparsely populated watershed forming a significant factor in any examination of the literature.

The background enabling legislation is another limiting factor to be carefully regarded. Different states in the federal system have different powers available for enabling and enacting measures. Townships in New England enjoy much broader governing powers than in the midwest, while regional planning in the latter area is more advanced and accepted. Different states have also made different provisions for river management, an effective program applicable to a Maine situation provided for in another state may have, in fact, no legal basis in Maine itself.

The four different categories of relevant literature are examined here. A brief description is provided, the relationship to the project paper discussed and the value to the study is noted for the resources included in this study.

General and Theoretical Sources

The sources described in this section provided general references to conservation, both philosophical and policy directions. These separate areas are explored.

Three general theoretical pieces were examined: What We Save Now... by Les Line (1973), Wooing of the Earth by Rene Dubos (1980) and Lob Trees in the Wilderness by Clifford and Isabel Ahlgren (1984). Line's work includes an article by Gauvin describing the "Allagash Nonwilderness Waterway," valuable from three perspectives: the Maine locale being proximal to the Union River situation, as an example of what the Union River watershed residents do not want for their region in the way of recreational over-exploitation, and to indicate the results of insufficient planning and resources devoted to a proposed wilderness waterway.

The Ahlgrens (1984) based their work on the Minnesota Boundary Waters Canoe Area, a region and situation with obvious parallels to the Union River watershed. They outline the challenges of wilderness preservation,

recreational pressures for a wilderness waterway and note the need for a style of management not consistent with the large unit methods in practice and requiring an intimate knowledge of the area to avoid degrading the forest itself. Dubos (1980) also further emphasized the pressures on wilderness associated with recreation enthusiasts.

Two more pieces deal with policy considerations in a general way useful to this study: Natural Environments Studies in Theoretical/Applied Analysis by John Krutilla (1972) and Wilderness Economics and Policy by Lloyd Ireland (1979).

Krutilla's book contains an article by George Stankey, "Strategy for Definition/Management of Wilderness Quality," among a series in this anthology. Two of Stankey's (1972) contributions are an outline of the characteristics of wilderness users and recreational carrying capacity standards accomodating different aspects of sociological/ecological domains. These latter are particularly useful in describing wilderness users for this study.

Ireland's work (1979) provides an overall source on wilderness land uses, the concepts behind these and a relation of the economic values to these concepts. The principle contribution to this study is his examination of commercial forest management policy alternatives relevant to the Union River watershed system. Ireland (1979) notes

the economic effects of forest management and attempts to lay the basis for resolving the conflict between wilderness preservation and multiple use of forest area.

The above noted works are principally theoretical in nature and provide a general support to this study; more focused sources are examined below.

Regional and Background Sources

This category of sources may be divided into three areas - sources on the Union River watershed itself, references to Maine's rivers and Maine State-wide background materials.

Three sources on the Union River watershed are referred to in this study: the Hancock County Planning Commission's Union River Management Plan, (1984) notes taken by the writer at meetings of the Union River Advisory Committee and articles from a local newspaper, the Ellsworth American.

The Union River Management Plant (1984) served as a basis for the recommendations put forward by the Union River Advisory Committee during the late autumn of 1984. It contains references to river classifications, regional characteristics, history and legislation applicable to river management, as well as a description of the watershed area and the river system. This is the principle source used in this study for the Union River watershed system and

the rivers themselves.

During the summer of 1984, the writer attended four meetings of the Union River Advisory Committee, held, for the most part, at the town hall of Aurora, Maine, centrally located in the Union River watershed area. The meetings were held principally to review the report noted above, make the agreed upon changes and put forward recommendations for the management of the Union River system. These notes outline some of the thoughts, impressions and ideas of the citizen members of the advisory committee, the bases upon which the recommendations were made. Some of the major issues of managing the Union River were discussed, and the desire for no additional regulations or restrictions is noted. These notes provide some first-hand observations of the decision process affecting the watershed area in progress and form a valuable part of this study beyond the factual material collected.

Excerpts from the Ellsworth American provide notes on the progress of the Union River Advisory Committee during the latter part of 1984 and its final decisions for recommendations. A further source provides direct information on the rivers and managerial programs in Maine: the Maine Department of Conservation's (DOC) Maine Rivers Study - Final Report. This work presents the major finding of Maine's rivers study, conservation options and

alternatives and description of the Union River's west branch as to classification in the Maine rivers study, as well as to emphasize the potential in Maine to conserve complete wilderness river watershed ecosystems. Needless to say, these latter two sources provide invaluable basic references underlying any development of management/preservation options for the Union River system.

Three more general works with reference to conditions in Maine proved useful to this study: Natural Regions of Maine by Clough and Adamus, The Timber Resources of Maine by Ferguson and Kingsley (1972) and Dr. John Hakola's Legacy of a Lifetime (1981).

Clough's and Adamus (1976) work describes the characteristics of Maine's physiographic subregions. The two subregions important to this study are: the Norumbega Hills and the Eastern Bogs; the Union River watershed lies partly within each of these subregions which form distinct variations of terrain and vegetation.

Ferguson's and Kingsley's work (1972) is a description of the timber industry in Maine. The timber supply outlook of the early 1970s is examined, the Maine forest management system described and techniques applicable to the commercial management of the different species are outlined. This treatment of Maine's forest industry is a rather optimistic one, but the background material on commercial forest management is useful to this study.

Hakola (1981) has provided a complete history of Baxter State Park, an early preservation of an ecosystem around Mt. Katahdin, Maine's highest peak. It is a useful look at the efforts required to bring about preservation of a unique area by acquisition and the managerial difficulties involved. A most useful idea is the reference to a Scientific Forestry Management unit within this park, a possible application to the Union River watershed area.

Legal References

Several legal references were consulted for this study. The rationales for the inclusion of legal sources are these: any program of river conservation/management/preservation must be based upon legislative enabling authorizations provided by the State government; a knowledge of the legal concepts behind legislative enablements is useful for understanding these; and those laws, ordinances and regulations may prove an integral part of any alternative considered for dealing with the Union River system. Three divisions are provided among legal sources: those of nation-wide significance, legal aspects applicable to Maine and references to the Land Use Regulation Commission (LURC) of Maine.

The most useful source at the nation-wide level is William Teclaff's article in the Ecology Law Quarterly, "Comparison of Trends in Water Management" (1975), a useful

discussion of the concept behind laws governing water resource use.

Shoreland Update Report #5 (1984) is a description of Minnesota's river classification system by the State Department of Natural Resources. It provides an interesting look at an alternate conception of river management to Maine's, based upon a classification/management system flow chart with recommendations for management objectives. The fact that this forms a legal system is an interesting contrast to Maine's reliance on a series of laws and regulations, often unrelated to each other.

Since a portion of the Union River watershed system is located in unorganized townships and plantations, under the jurisdiction of LURC, this agency's regulations on waterbodies was examined for this study. A series of LURC publications were referred to for this purpose: Maine Land Use Laws (1980), Maine Land Use Regulation Commission LURC (1980) and Revised Statutes Annotated Title 12 (1981) are compilations of land use laws, policies, standards and land use districts and subuse districts applied to the unorganized portions of Maine. These districts, policies, standards, etc., affect those portions of the Union River system under LURC's jurisdiction.

Two other sources provide useful commentaries of Maine laws as these relate to water resources: Janet Milne's The

Land Owner's Options (1977) and an article from the November 1984 issue of Habitat. Milne's booklet is a handout to landowners looking into preserving their land and explains covenants, easements and land transfers from the private landowner's viewpoint. The laws pertaining to these are briefly examined.

Nancy Anderson, in her article "The Missing Law" (1984) in the Maine Audubon's Habitat, outlines the weaknesses in Maine's wetlands protection statutes and provides some recommendations for dealing with these, important considerations in developing managerial alternatives for the Union River watershed system.

The legal references described above provided background materials in the areas of enabling legislation, applicable legal cases, statutes, regulations, standards, use/protection districts, weaknesses and legal concepts. Options developed for the Union River must be built on a legal framework for the reasons described above as rationales.

Managerial Options: Case Studies/Preservation Alternatives

This category is the central focus of this study project. The materials examined herein form the core around which the efforts evolved: development of managerial preservation options for the Union River watershed system. Three divisions among these sources are

differentiated: case studies of individual rivers and river management programs of other states; general policies for wilderness/recreation/resource management/protection; and management options/case studies particular to Maine itself. Within the works are the directions for preserving/managing the Union River watershed system developed.

Case Studies

A series of brochures, pamphlets and policy statements have been examined which deal with management proposals for specific rivers in various locations of the United States. These are reviewed here for their format, relation to the study project and contribution to this paper. A comprehensive review is not the intended purpose, these materials are only an illustration of recent thinking on river management.

The following case studies were examined: Proposed River Management Plan - Upper Delaware (1983), Farmington River Study (1980), A Green Way Strategy for Weems Creek (1982) (Maryland) and Wood-Pawcatuck Rivers Study (1984) (Rhode Island).

The Upper Delaware River Management Plan (1980) was compiled by the National Park Service for an area comprising parts of both Pennsylvania and New York. It contains an outline of phases of development based upon an

inter-governmental coordinating council, noting the roles and responsibilities of the key players, and recommendations. The concept of voluntary implementation of land use controls, as well as that of inter-governmental coordination in the management of the river area are interesting ones. The region is partly agricultural, not a commercial forest area and split among two high-level jurisdictions, aspects which differentiate it from the Union River's situation.

The executive summary of the Farmington River Study (1980) was also produced by the National Park Service for a location in New York. This work outlines goals, plan elements, and river conservation actions. Again, the locale is in a region differing from the type of area of the Maine rivers and its value lies as a comparison of one rural river study to the Maine efforts.

The Weems Creek Study (1982) was the product of a joint effort by the National Park Service and the Maryland Department of Natural Resources. The resource options are thoroughly outlined. Weems Creek is an estuary to the Chesapeake Bay, located in a heavily populated area - not a wilderness. Its preservation is part of an effort to maintain disappearing habitat and open space. As such, it is an interesting look at an "urban" river management effort.

The study of the Wood and Pawcatuck Rivers (1984) is a little closer to home - New England. Though not a truly wilderness river system, it courses some of the least densely settled land of southern New England and presents an approach to looking at a system of more than one river - a smaller scale analogy to the Union River system in a more populated, less commercially forested setting. The findings, issues, objectives and recommendations are succinctly described, and some useful ideas on inter-community coordination - no mean achievement in New England - are discussed. The New England setting would have relevance to this study despite the differing settlement and terrain characteristics from the Union River watershed.

Four other pieces provide overall explanations of state river programs: the New York Office of Parks and Recreation's report to the legislature New York Urban Cultural Park System (1980), Wild and Scenic Rivers Program for New Hampshire (New Hampshire Office of State Planning, 1980), Wisconsin Wild Rivers Program by the Wisconsin Department of Natural Resources (1965) and the Minnesota Department of Natural Resource's Statewide Outstanding Rivers Inventory (1983).

The report on New York's Urban Cultural Park System (1980) describes the key issues to be addressed, policy-making directions and specifics, and lays out the basics for agency involvement and coordination. This is a very

comprehensive view, and the purpose of the system is beyond preservation and simple recreation - an intertwining of culture, education and revitalization are some of the directions offered here. Perhaps the value of this piece is to illustrate the breadth of ideas that can be attained in this field. Certainly some of New York's northern river systems have commonalities with the principle system under consideration in this paper.

The rivers program in New Hampshire (1980) is excellent in two respects: as a research and analysis guide for developing a base of knowledge about a wild river and as a policy guide. The outline of the planning process is the clearest encountered in this study and its northern New England locale make it an especially pertinent one to this study. Tragically, the writer has been assured, this will remain a "shelf" document; very little is expected to be done to exercise the described processes to the benefit of New Hampshire's wild rivers.

The Wisconsin Wild Rivers Program (1965) is an illustration of a midwestern approach to river systems which bear some similarities to the Union River system. The river classification categories are outlined, protections and processes described and recommendations presented. Along with the Minnesota Department of Natural Resource's Shoreland Update Report #5 (1984), another approach to river classification and management

recommendations are offered for river systems, some in commercial forest regions, with parallels to the Union River watershed.

A more interesting document from the same office is Statewide Outstanding Rivers Inventory (1983). This project report details the study process, described the priority ranking system and states policies for river preservation. It does a thorough job with river analysis, and Appendix D on River Management Policies is quite specific as to how the separate river management programs will be integrated. Several of the rivers in Minnesota's northern and northeastern areas are quite similar in population densities and environments to Maine's.

The midwestern states differ from northern New England in that urban locations are more prominent, agriculture more extensive and ecosystems are more variable; major rivers and open agricultural lands as well as forested wilderness. This requires a wider scope of conception in any approach to dealing with river management on a state level.

Policy Discussions

Three sources discuss river/wilderness policies in more breadth than the locally oriented sources examined above. These are Ireland's Wilderness Economics and Policies (1979), referred to in the discussion of General

and Theoretical Sources, Citizen's Guide to River Conservation by Rolf Diamant, J. Glenn Eugster and Christopher J. Duerksen (1984), Flowing Free - A Citizen's Guide for Protecting Wild and Scenic Rivers produced by the River Conservation Fund in Washington, D.C. (1977) and America's Rivers: An Assessment of State River Conservation Programs by Robert C. Hoffman and Keith Fletcher (1984).

Lloyd Ireland's work (1979) is a useful theoretical economic analysis of roles in wilderness preservation, examining as he does the impact of preservation decisions on wood supply, recreation management in terms of custodial versus service and wilderness management from a social standpoint. The discussion of impact on the timber supply industry is useful to this study. He also provides some formulas for analyzing various economic relationships to wilderness preservation. Although not addressing river policy issues directly, his examinations are useful to the purposes of this paper in that these provide a background upon which to base preservation alternatives.

Citizen's Guide... (1984) discusses case studies of river conservation management with prominent allusion to Maine's program for rivers and the case of the Saco River Corridor Commission. Another useful discussion is that of Oregon's Riparian Tax Incentive Program. This work provides ideas on the development of river management in

different states and is useful as an anthology of river program examples for comparison purposes.

Flowing Free (1977) describes the National Wild and Scenic Rivers Act and describes routes to designating a chosen river into the system. While inclusion in this national system may not be a viable option for the Union River watershed, the how-to approach of this guide is useful to understand what options citizens have in influencing river policy decisions and how they might take advantage of these influence opportunities.

Fletcher and Hoffman (1984) is, perhaps, one of the most useful policy oriented works to the purpose of this study. Three sections form the core which is of significance here: the first is a background examination of the means of river conservation utilized in the state programs; the second section is a list of specific methods, tools, strategies and approaches which are described with reference to the different states, and the third section is a state-by-state description of river programs. The criteria for evaluation of the state programs is specifically stated; these criteria form the outline by which the options in Chapter 4 are described, and the strategies through which the recommendations in Chapter 5 may be realized. Maine's river programs receive very favorable mention in this work.

References to the Maine Rivers Program

The sources discussed in this section present the efforts underway in Maine itself to deal with its river systems and form a useful background to any consideration of management alternatives for any particular individual river. Maine, at present, is considered to have a comprehensive and effective river policy, regardless of the effects on individual river systems.

The Maine Department of Conservation's Maine Rivers Study - Final Report (1982) has been discussed above under the Regional and Background section. It is a useful source of the river conservation options available under Maine law.

The Land Use Regulation Commissions's (LURC) Protection Proposals for Selected Rivers in Eastern Maine (1980) provides more background information on competing uses of the rivers and the watershed systems. It is a zoning proposal with relevance to the Union River locale. However, since LURC's jurisdiction only covers part of the watershed, such a proposal would have effect in only portions of the area in question.

LURC's pamphlet, Revised Comprehensive Land Use Plan (1983), is more useful. It describes LURC's composition and responsibilities, zoning designations and forestry activity, the principle one in LURC's bailiwick. The goals of these policy statements are defined and river issues are

discussed. Another LURC pamphlet, Land Use Districts and Standards (1983), explains the districts, management requirements for these with regard to each subdistrict, and the purposes for these latter.

Four current examples of river management planning in Maine have also been examined for the purposes of this project paper. These include: The Narraguagus River Plan (1984), The Saco River Corridor - View from the Valley (1973), A Management Plan for the Aroostook and Big Machias Rivers (1982) and St. John Recreation Management (1983). These sources provide indications of recent approaches to river conservation in Maine itself, given the conditions of sparsely populated forest in a northern climate.

A current example of river management proposals in Maine, quite proximal to the Union River is the Narraguagus River Plan (1984) compiled by the Washington County Regional Planning Commission. Washington County rests directly east of Hancock County in Maine and this river is located only a few miles east of the Union River watershed, with obvious environmental and situational similarities to the river system focused on in this paper. The plan describes the management proposals and the implementation of these ideas. Various conservation options are discussed.

The utility of the Narraguagus River Plan is, however, limited for the purposes of this study. Despite its

proximity, the plan is limited in the breadth of approach to the area, not discussing the watershed holistically and the options suggested are not particularly far-reaching in the scope of protection offered.

A more successful example of river corridor planning is described in The Saco River Corridor - A View from the Valley (1973). This document, issued by the Saco River Corridor Commission, describes the zoning approach which is based upon different uses and settlement patterns on the river. The river system is located in western Maine, farther from the URWS than is the Narraguagus River, but is an example of the river corridor approach at work in Maine, one that has been in existence for over ten years at this writing.

Another useful illustration of river management planning is A Management Plan for the Aroostook and Big Machias Rivers (1982). These rivers are located in northern Maine, in a region considerably less populated than is the Saco River Valley. Much good information and ideas were gleaned from this effective study, including Federal/State Wild/Scenic rivers designation effects, summaries of other state river conservation efforts, approaches to establishing land use controls in a corridor, timber harvesting and recreation management, education programs, administrative alternatives and ad hoc river management advisory committees. This document is certainly

one of the more useful ones to be encountered in this study.

Still another example of wilderness river planning comes from St. John River Recreation Management, a product of the North Maine Woods, Inc., (1983) a private organization oriented toward wilderness recreation in commercial forest regions. The importance of this document is two fold: (a) the principal river for which the management plan is oriented is part of a wilderness river system in a Maine commercial forest region; and (b) a working set of policies and procedures are provided for recreation management on this lesser known river which parallels the Allagash River system.

Summary

The purpose of this chapter has been to categorize and briefly review the literature examined for this study. Time and resource limitations have prevented the examination of further literature sources related to the central focus of this paper. The objectives of the above were to note the value of each piece to the study, discuss specific contributions and to outline the criteria for inclusion.

Chapter 3

BACKGROUND, ISSUES AND PROBLEMS

Introduction

The purpose of this chapter is to lay the basis for a background understanding for the subject of this paper. This treatment will include a description of the climatic and physiographic aspects of the Union River watershed area, and a definition of its boundaries. The issue dimensions of the paper are outlined here: control of the watershed region and its managerial goals; these are intertwined. The basic problems which any managerial scheme must address will also be examined; these include the local population's interest - or disinterest, the interests of recreation and the paper corporations in commercial forestry. These elements will be described and discussed in order to form an understanding of the regional backdrop upon which any option of river watershed management will be implemented.

Physical Description

Physical descriptions are found in Figures 5 and 6. Natural Regions and Subregions of Maine and Same with Minor Civil Divisions, pp. - , respectively. Two of Maine's physical natural areas are partially included in the Union River Watershed System (URWS). The designations of these

natural regions are based upon distinguishing characteristics of elevations, soils, vegetation types and climate. These natural characteristics will be briefly described here and reference made to managerial considerations. The two natural regions represented in the URWS are the Norumbega Hills region and the Eastern Bogs region.

Norumbega Hills

This region consists of rounded monadnock hills and mountains of between 500 and 1000 feet of elevation. The highest point in the URWS is Lead Mountain (1475') in Township 28. These features, such as Peaked Mountain in Clifton (Penobscot County), show evidence of glacial plucking. The soils are extremely rocky, sand loams derived from granitic till, underlain by an igneous bedrock.¹

The vegetation in this natural area is chiefly northern hardwoods on the high ridges. Spruce and fir tend to predominate in the lower valleys. Burned-over areas have grown up quite thickly with aspen and birch. The vegetation in this area is mixed and changes according to elevation and land use influences.

The climatic pattern shows maritime influences, precipitation moving inland to be released on the hills. This pattern, as might be expected, is similar to that of

the Eastern Bogs region of eastern Maine.²

Overall, this is a scenic region of poor agricultural soils and some steep slopes. Few slopes in this region exceed 15-20%; these formations were caused by glacial and marine intrusions 12 - 13,000 years ago and subsequent weathering of less resistant materials.

Eastern Bogs

This region is characterized by low elevations and an abundance of sphagnum bogs. There are no hills over 1,000 feet. Long glacial eskers are the most distinctive feature on the surficial geography; no where else in the continental United States are such eskers so numerous and well defined; a portion of Maine Route 9 (the "Airline") is constructed along an esker. The soils are heavily organic, derived from peat in lower areas and consist of slate, shale and sandstone till in better drained locations.⁴

The vegetation in this area is also mixed. Spruce and fir form a general cover. Hardwoods populate the drier sites. Tamarack and black spruce are prevalent in bogs and swamps. Sphagnum mosses are a common feature in this region, giving it its identification.⁵

The climatic pattern is similar to the aforementioned Norumbega Hills region: cool summers and winters with less than the average Maine-snow fall. The total annual precipitation here is greater than for the state as a

whole. Average temperature fluctuations range from a winter low of -10 degrees to a summer high of 90 degrees Fahrenheit. Snowfall averages 75" per winter. Approximately 20 days receive more than 1" of rainfall and the average rainfall of 40" is distributed evenly throughout the year.⁶

Managerial Considerations

The URWS is a combination of two northern forest regions typical to eastern Maine. The climate is a northern one with maritime influences and high annual precipitation. Wetlands are extensive, influenced by glacial action on a granite bedrock. The most predominate feature of the vegetation is the forest cover: 908,900 acres out of 983,700 acres, interspersed with 101,708 acres of wetlands in Hancock County; the URWS alone contains over 15,000 acres of these wetlands. Forty-thousand acres of wetlands are standing year round; the rest are on easily flooded soils.⁷

The URWS is a mixed watershed ecology. It consists of hills and bogs with an extensive forest cover. The seasons are influenced by high precipitation brought on by a marine proximity. Such a wetland ecology, with the changes of seasons in a northern forest area, are factors that play an important role in any management decisions over a long term.

Water Dimensions

The boundaries of the URWS are defined by the crests of the surrounding high elevations (see figure 2. Union River Watershed Basins, p.). The area is approximately 60 miles long and 45 miles wide at the widest point. The watershed drains approximately 500 square miles. The West Branch of the Union River is Maine's 19th largest river. Within the watershed are 484 miles of streams and 81 lakes. The combined total area is 37,000 acres. The West Branch, with 188 miles of streams drains 175 square miles; the East Branch, with 71 miles of streams, drains 150 square miles and the Middle Branch, with 48 miles of streams, drains 45 square miles.⁸

Issues

This section of the paper will explore two issues of general significance to river preservation and conservation: control and use. These issues will be outlined in separate subsections and related to the purposes of this paper.

Control

Three basic questions of control in river preservation, or in any conservation effort for that matter, are:

Who controls?

How is this control acquired?

What can be done with this authority?

The three levels of control which underly this part of the discussion are federal, state and local levels; local levels including private as well as municipal. Each level will be discussed below in relation to a framework based upon the three basic questions noted above.

Federal

The principle legislation affecting wilderness rivers on the federal level is the Wild and Scenic Rivers Act. Principally, this act monitors federal program effects on wild rivers and provides a process to include such rivers under a national designation. Specific legislation protections in most federal laws apply largely to public lands only.⁹

There are three means by which a river can become part of the National Wild and Scenic Rivers system: direct enactment into the system, enactment into the federal system of a state-designated river by the state legislature and through incorporation into an analogous state system. As local media shows, there is little local sympathy for designating the Union River into either a state or federal system.¹⁰

The federal system, and related federal legislation in the field, provides specific legislative protections for specific areas; these usually take the form of mandatory reviews and prohibitions of certain practices. As noted above, these apply largely to publicly owned lands.¹¹ Currently the decreased public expenditures on the federal level for conservation projects, generally, reflect concerns, shared at the local level in Hancock County, with over-regulation and the present administrations' attitudes in this area.

State

Unfortunately, the Allagash Wilderness Waterway provides the primary example of state control of a river preservation project. There is limited preservation against commercial and recreational interests and little money is provided at the state level for waterway operation.¹² This example has had an effect in the URWS localities of souring people on the idea of extensive state-level involvement in the management of the URWS.

Different states have their own mechanisms for acquiring control of river resources for preservation and conservation purposes. Wisconsin's Department of Natural Resources has power of eminent domain to purchase, with state forestry funds, lands along river corridors.¹³ This agency may seek, but not mandate, county-wide protective

zoning for river corridors; most wild and scenic rivers in Wisconsin are in state ownership. Eminent domain is not an option for Minnesota's conservation authorities and reliance is placed on zoning protection. These particular zoning protections are ones the state can mandate for a county. Scenic easements are purchased and the emphasis in Minnesota's wild river protection is on preservation rather than recreation. Maine has a state wild and scenic river system into which designated rivers may be enacted with legislative approval. Such approval is only granted after a review process involving local, state and private interests.¹⁴

There are limits to the state's land acquisition powers reflecting a concern with overdevelopment by federal or state managers. The Allagash example is referred to for illustrative purposes. Maine laws for wetlands and waterbody protection are often fragmentary and subject to vague interpretations, as well as popular ignorance of their requirements. Such laws include, but are not limited to: the Site Location of Development Law, the Great Ponds Act, the Stream Alterations Act and the mandatory Shorelands Zoning law.¹⁵

Local

Local efforts of river conservation depend upon perceptions of need in order that support be generated for

local control or private stewardship. Private conservation organizations have played a significant role in these efforts in the past for specific river areas; these bodies are eligible for foundation grants and not constrained by political municipal boundaries. Maine's best-known example is the Saco River Corridor Commission for the Saco River of southern Maine and parts of New Hampshire.¹⁶

Two forms of acquisition are most apparent to localities for conservation efforts: direct purchase and imposition of specific controls. Direct acquisition often attracts recreational pressures, inflicts losses on the landowners through condemnation of properties and reduces the property tax base. Imposition allows local controls and citizen influences without the disadvantages of the first method; direct acquisitions may then be few and carefully chosen. The key to successful local control of a conservation project is the effective coordination of existing government programs.¹⁷

The Saco River Corridor Commission illustrates the opportunity to shape a river program to the specific needs of a river system and its surrounding communities.¹⁸ The coordination of government programs must be consistent with the varying goals of the river communities, an often frustrating objective to be achieved (see Appendix 3. State of Maine Act to Create Saco River Corridor Commission, p.).

Observations

The level of control may determine resource availability and regional influence over controls: the higher the level of control, the more resources are available for managing a selected area; conversely, the lower the level of control, the more regional and local influence and input into such management. Public control often provides the most decision-making authority in any management scheme; however, private controls are usually more flexible. The ideal control framework for management of the URWS would seem to be a combination of the best features from the above options of level and consistency among managing bodies. A conception of how such a combination could be achieved is an objective of this paper.

Uses

Three issues of use are explored here: preservation versus use, single versus multi-use and recreational versus resource use. All three are related fundamentally to the purposes of this paper. The management of any natural resource requires dealing with the intertwining implications of preservation, exploitation, recreation and combinations of these uses on a limited, possibly fragile, natural system. The URWS is no exception.

Preservation Versus Use

Most of the defined wildlands in the URWS have been managed as timber areas for the past forty years, at least. Wilderness management problems include institutional constraints, limited resources and rapid recreational growth. Often the preservation versus use dichotomy has been expressed in terms of restricting all uses versus letting uses continue unabated. As with most significant undeveloped U. S. wildlands, the URWS has been part of the raw material supply base for the nearby resource-dependant communities. Restriction of this supply base in the name of preservation would exacerbate the job loss in the primary wood industries beyond the immedite local impact through a multiplier effect. The basic decisions of this issue have been taken in the distant past and it is quite probable that the URWS will continue in use as a resource base for a specific industry.¹⁹

Single Versus Multi-Use

Ireland (1979) considers this debate to be a meaningless artificial polarity of land uses as barring the use of careful planning to create large areas of intermedite ground, in which backcountry values are given general protection, while low-intensity silvic wildlife management and recreational development are carried out.

Others have also noted that artful design of management alternatives can accomodate preservation objectives while allowing local economic needs to be met. While certain uses may predominate, and some of these will be in conflict, there are possibilities for different uses to co-exist in the URWS.²⁰

Resource Versus Recreational Use

Traditionally, Maine's wild rivers have been associated with the timber industry and energy production, these being economically significant; recreation, wildlife and fisheries have also played economic roles and multiple use is to be encouraged. Replacement of resource-extraction and industrial jobs with employment in the tourism sectors of the economy has been suggested in some preservationist quarters; such jobs are usually poor substitutes for industry-related work. While recreation can play a role in the local economies of the URWS, its communities are not oriented primarily in this direction.²¹

Observation

Any given resource management policy or proposal may have specific objectives, but interested groups are likely to have their own objectives. Capacity standards have been put forward as a concept for accomodating differing use and ecological aspects through legal, administrative and

behavioral constraints. In Maine, especially in the unorganized townships, land use districts have served as a device to differentiate among the development for different areas. The standards for these districts, as promulgated by the Maine Land Use Regulation Commission (LURC), are considered minimum requirements. The URWS is an area where resource extraction, though forming the primary economic base for the region, can be combined with other uses in the recreation field. The challenge to planning in this area is to meet a preservation goal which accounts for combinations of resource and recreational use.²²

Problem Areas

Three problems specific to the Union River Watershed are the focus of this section. These problems are directly related to managerial decisions affecting the URWS itself. The purpose of the following discussion is to examine these problem areas in order to understand their effects. The problem areas are local, paper corporation and recreational interests.

Local Interest and Disinterest

The following organized communities are included, partially or wholly, within the Union River watershed: Amherst, Aurora, Eastbrook, Great Pond, Mariaville, Osborne and Waltham, and some unorganized townships, administered

by LURC. The subsection will examine the Union River Advisory Committee, discuss the problems as reflected by the local population and provide some observations.

Union River Advisory Committee

This committee was formed in the summer of 1984 through the efforts of the Hancock County Planning Commission in order to discuss the possibilities of designation into the National Wild and Scenic Rivers system of the Union River and methods for conserving the area. A series of meetings were held at the Aurora Town Hall to pursue the discussions. The committee consisted of representatives from the organized townships, two of the major paper corporations with local landholdings and the Planning Commission. Members of the local public were also present. Five recommendations were developed by the committee with a bearing on the ultimate decisions for managing the URWS:

- current laws and regulations were regarded as sufficient and new ones being unnecessary;

- National Wild and Scenic River designation was considered to be inappropriate for the Union River;

- presently-existing access sites were considered to be adequate;

- local communities and the Planning Commission would continue to monitor any Maine Department of Conservation

programs on the Union River;

-a permanent Union River Advisory Committee would be formed to monitor the URWS.²³

Problems

A series of problems were examined by the Union River Advisory Committee which reflected a disinterest on the part of the local communities in any extensive management schemes for the URWS. Initially, state responsibilities were questioned, as well as the purposes of the study under way by the Planning Commission. An expressed fear of the locals was an influx of federal and state disruptions of community prerogatives, bringing restrictions beyond those minimal state requirements over local actions and leveraging key controls out of local hands.²⁴

The difficulties of enforcing current laws were examined. The following were noted: the distances involved in patrolling the area adequately, local "fellowship" that often reduced the likelihood that local citizens would take enforcement action against their neighbors, ignorance of laws and regulations, magnitude of the enforcement tasks assigned to wardens and other officials, the ineffective training of local lay law enforcement officials, the disinclination of county attorneys to prosecute violations and the examples of local officials who ignored laws and regulations.²⁵

Comparisons with the Allagash Wilderness Waterway were noted, which dampened any enthusiasm for state-level management programs. The Planning Commission's report on the Union River system noted a lack of coordinated planning programs for the watershed region, but this had little influence with the discussions held by the committee.²⁶

Observations

The meetings held by the Union River Advisory Committee served to indicate some considerations which must be taken into account by any management schemes for the URWS. The fears of loss by local residents of community control and property rights from any conservation program imposed by higher-level government are real. The recommendations of the Union River Advisory Committee might suggest that this body was formed to provide a facade for inaction. Enforcement of any conservation management program will be difficult under the best of circumstances and unlikely without local support. Any schemes proposed for the URWS must address community concerns if these would achieve their intended purpose.

Commercial Forestry Interests of the Paper Corporations

The intent of this subsection is to examine the purposes for paper corporation land ownership, forestry practices, problems for the URWS and possibilities for

alternatives. The relationship of commercial forestry to management of the URWS is a significant consideration in any decisions concerning preservation and conservation options.

Purposes

Maine has the longest continuous history of wood-harvesting among the major timber producing states of the union. Forty-nine percent of commercial forestry land in Maine is owned by the wood-using industries. Forest land is here defined as that with 30% or more of crown cover; 89.5% of Hancock County (154,479 acres) is in forestlands, of which 70.3% (109,336 acres) is owned by various paper corporations.²⁷

The Maine wood industries provide 8% of all nonfarm jobs and 28% of manufacturing employment.²⁸ The URWS serves as a resource base for some of Maine's paper corporations, and is a pillar of the local economy. The basic interests of the wood-using industries is to maintain this resource base both as to ecological function and legitimized land use.

Forestry Practices

The forest management practiced in the URWS is based upon the paper corporations interests and silvicultural principles developed for commercially-viable species in a

northern environment (see figure 4. Existing Land Use, p.). Three basic forest types are present, generally, in the Maine woods which require different management practices to insure a commercially productive forest: white pine, northern hardwoods and spruce fir.

The basic principle for managing white pine stands for commercial purposes is to select the better sites suitable for this species and to manage these sites intensively.²⁹ White pine is the Maine state tree and the basis of early lumbering on which Maine's economy was developed during the nineteenth century. Those areas most conducive to such stands are, under ideal conditions, managed for this species alone.

Northern hardwoods grow in mixed stands. The basic cultivation principles are to maximize the growth of the high value trees and to prevent the increase of low value trees in the stands. Such practices have been known to require the use of herbicides.

Spruce fir species may be managed through one of two schemes: even or uneven-aged management. The latter program provides for frequent thinning and harvesting of trees as they become commercially valuable. It provides for a more attractive wilderness setting to the eye of the passerby, but is not always cost-efficient. The former program requires harvesting of stands at the end of a growth cycle: stands are raised, managed and harvested at

the end of a rotation.³⁰

Forestry management principles will vary with species, costs and accessibility. The object is to produce wood for timber and, more often, pulp logs for paper manufacturer, the principle output of the corporations owning land in the URWS (see figure 3. Forest Land Ownership, p.).

Problems

Some problems are present in the use of the URWS as a forest resource base. The problems affect the forest industry in Maine generally, and the URWS in particular. An initial concern is that Maine's forests are not in good commercial shape. Forests in the northwestern United States are now considered to be at their limit of wood production; pressures on northeastern forests could require a doubling of present wood production.³¹ The U.S. Forest Service's 1980 decennial survey noted that present harvesting is exceeding growth in Maine.

Other concerns about forestry practices in Maine are related to long-term ecological effects: herbicidal applications, soil compaction and erosion from the use of larger and heavier wood harvesting machinery, whole-tree utilization practices which may limit nutrients for new forest growth, increased accessibility of previously remote areas and wildlife habitat destruction.³²

The consequences for the URWS are ecological and economic in scope. The multiplier effects have been noted for resource dependent industries; these effects are dependent upon the communities dependence upon the wood industry.³³ Increased harvesting pressures which exceed the renewal rate of the forest could deplete the resource, and undermine the local community. Ecologically hazardous practices may reduce the forest's capability to regenerate, as well as effect water quality and wildlife habitat in the watershed.

Possibilities

There exist possibilities which could allow for commercial forestry and proper attention to the URWS's ecology. Ireland (1979) believes, for example, the major wilderness preserve allocations could be made without decreasing the national wood supply and/or raising wood prices through increased management of selected site lands, improved management of small private tracts and increasing the available wood supply by other silvicultural practices.³⁴

An intensive management would allow wood needs to be met on a fraction of the existing commercial forest lands by stretching out the forest inventory. This would be accomplished by continued regeneration of the wood supply, reduction of harvesting pressures or increased investments

into improving productivity. The current surplus of hardwood could lower the impact of wilderness allocations on wood supply on a per-acre basis.³⁵

Substantial surpluses of timber are calculated to exist on private lands not in commercial use; supply limitations might be addressed through effective extension programs and subsidies. Extension programs, by encouraging increased private woodlot management, could potentially improve the stands not in commercial forests.³⁶

Naturalistic forest management practices could play a role in wilderness preservation: longer harvesting rotations, stream buffers and harvesting restrictions on slopes and in wildlife habitats. Higher wood prices would serve, in the long term, as an incentive for more efficient use of wood products.³⁷

An example of conservation-oriented forest practice is diameter limit harvesting: trees are selected for cutting within a specified trunk diameter range, allowing for development of new growth as well as healthy, mature seed trees. The stands are developed for future use by uneven removals. The harvest sites are more aesthetic to the forest visitor and ecologically sound. This technique can be costly and would most likely be limited to selected areas.

Observations

The existing alternatives in forest management allow for conservation of forested watershed areas without adverse impacts on resource dependent local economies. The current pressures on the Maine woods from commercial wood demands would seem to impel consideration of these, if forest products industries are to contribute significantly to the state's future economy, and areas like the URWS are to be preserved for future generations. A combination of incentives and education could play a significant role in influencing local popular interest and paper corporation forestry practices in the URWS.

Recreation Interests

This subsection will examine recreational aspects related to the URWS. Wilderness recreationists' characteristics will be discussed, management problems noted and some policy implications drawn. Recreation in the URWS has played a small role in the local economy and may yet provide a rationale for a watershed preservation orientation to area management.

Wilderness Recreationist Characteristics

The early wilderness preservationists of American history looked to using the areas they strove to preserve; a concept of wilderness purity was not necessarily part of

their outlook.³⁹ Stankey (1972) has observed that purist attitudes toward wilderness experiences form, with variations among individuals, a part of the modern recreationist's outlook. The present-day recreational visitor to wilderness areas tends to be an urbanite with an advanced professional/technical education and a high income level; these factors may account for the disproportionate influence exerted on wilderness policies at decision-making levels.

Wilderness Management Problems

Maine is blessed with many miles of river canoe routes: of the nearly 4,500 miles of rivers suitable for canoeing, many exist within unorganized and uninhabited areas. Wilderness management in Maine, as elsewhere, suffers from institutional constraints, limited resources and the recent rapid growth of wilderness oriented recreation. The purist attitudes among influential wilderness enthusiasts, noted above, have implications for wilderness management policies; these include:

- consideration of low-intensity use modifiers implying restraints in a total picture of increasing overall use;

- conflicts between traditional small-party, primitive travel groups versus large groups traveling by less appropriate means on the rivers;

- management efforts to locate isolated sites;

-efforts to control or eliminate litter.⁴⁰

Some specific impacts of increased wilderness recreation include: trampling and erosion of trails, camping debris, campsite overuse, firewood supply depletion and water quality hazards.⁴¹ These impacts must influence the directions in any proposed management scheme for the URWS.

Union River Watershed System Recreational Characteristics

The Union River has been designated in the Maine Rivers Study (1982) as of "outstanding state-wide" and "state-wide significance as a natural and recreational resource" on the West, Middle and East Branches, respectively. The Middle and West Branches are accessible for whitewater canoeing from early spring; the rivers are used to reach deer hunting areas in the autumn; the region contains a snowmobiling trail system used during the winter and fishermen and nature enthusiasts visit the URWS year round. Game wardens estimate that 300-400 persons use the river system each year, approximately 2 persons per day during the April to September season, 100 persons per day on peak use periods during weekends and holidays and that 55% of this use occurs on the Middle and West Branches of the Union River. The projections are that little substantial recreational use increase may be expected; however, Hancock County is the fastest growing county in

Maine, presently, and the Bangor-Brewer area is quite proximal to the URWS.⁴²

Policy Implications

Maine is unique in the northeast with the number and diversity of natural and recreational river resources. Potential exists for conflict between hydroelectric projects and recreational uses on its rivers. The opportunity exists for freedom of recreational action and solitude through management of large peripheral margins to the wilderness as in few other eastern U.S. areas, significant in view of the sociological aspects of purist wilderness attitudes noted above. Carrying capacity is a legitimate concept for maintaining the ecological parameters. The decisions on capacity standards must account for different use and ecological aspects in the URWS.⁴³

The Maine Rivers Study (1982) has considered recreation development in its discussions of river policies: a general policy is the development of recreational facilities to meet identified needs of enjoyment and safety without significant impacts on the character of the river or the resources of adjoining lands.⁴⁴

Summary

The purpose of this chapter is to provide a useful exploration of the background elements for this paper, dealing with the area, issues and problems. It has been shown that the Union River Watershed System is situated in a northern forest ecosystem with a climatical pattern influenced by nautical proximity and consisting of forested hills and wetlands. Maritime precipitation is a factor during all four seasons. Land use in the area includes extensive commercial forest and recreation. The lack of local popular interest in obtrusive management and commercial forestry practices by the paper corporations has been examined.

Management of the URWS will have to deal with the need for a balance of flexibility and authority for decision-making among the uses of available resources.

Chapter 4

OPTIONS

Introduction

The purpose of this paper, as stated in Chapter 1, is to develop some policy options by which the wilderness character of the Union River Watershed System could be preserved and the regional economic needs met. The need for coordinated planning to achieve this purpose has been noted. The objectives to be met by such a planning effort include:

- a clear definition of control and an acceptable authority pattern to deal with the unique circumstances of the Union River Watershed System;

- building and/or maintaining community interest for management of the region on a watershed-wide basis;

- environmentally sound and financially viable use of forest resources in the URWS;

- suitable approaches to recreation management satisfactory to recreation enthusiasts, local and corporation interests and different levels of government.

This chapter will catalogue a series of managerial options discerned during a search of the relevant literature examined in Chapter 2. The focus of the search has been to relate the findings of the problems and issues discussed in Chapter 3.

Rationales

What are the rationales for achieving the objectives and attaining the goals noted above? These can be summarized here for the purposes of this paper, into the following four categories:

1. Environmental - The opportunity exists to preserve a clean watershed proximal to the Atlantic Ocean, one that does not exist in very many areas outside of eastern Maine.
2. Recreational - The URWS is located in the fastest-growing county in Maine and is close to one of Maine's few urbanized areas. Such a potential recreational resource must be guarded against overuse and abuse.
3. Resources - Wood harvesting pressures are forecasted to increase and the opportunity exists to conserve an area of high-quality timber.
4. Ecological - The URWS, as an ecosystem, could serve as a test area to provide knowledge on the effects of man's ecological manipulations on a northern forest region.¹

Organization

This chapter will be organized into four sections. The first section will outline the directions discussed in Chapter 1. The next section will include a discussion of Maine's present position in the United States as regards river conservation programs. This section will be followed

by a catalog of the options for river management focusing on the objectives noted above. The final section will set forth a set of criteria by which these options will be evaluated with a view towards their suitability at attaining the purpose of this paper.

DIRECTIONS

Control

The ideal control mechanism for realizing the purposes of this paper would provide an interphasing of local and state level authority such that these complement and reinforce each other. A mix of public approval and private flexibility would set a useful background to achieving the planning objectives. An integration of state and possibly federal-level resource availability with local and regional influence on planning and implementation is the basic principle of control here.

Planning

An essential task is to coordinate the federal, state, local and private elements involved here. The definition of the watershed as a boundary must not threaten local economic interests. Planning must also adhere to the needs of the physical setting, an ecosystem composed of hills and bogs combined in a northern forest. These aspects are crucial points in any planning effort for the URWS.

Uses

The URWS sees a variety of uses in an on-going pattern. Local economic livelihoods of the residents are provided by small businesses, farming, wood harvesting and some recreation. Recreation in the form of canoeing, as well as other sporting pursuits are present. Commercial forestry forms the *raison d'etre* for the region as a whole, encompassing the other uses under its umbrella. These uses will continue under most foreseeable circumstances and the focus, instead of eliminating these must be toward an adjustment among these and the conservation of the watershed on a regional basis.

ASSESSMENT OF MAINE'S RIVER CONSERVATION PROGRAM

Maine's river conservation program - as set forth in the "Maine Rivers Policy" - is rated very highly in comparison to other state river conservation programs. Four managerial "tools" are examined here, briefly, for provisions for use in Maine to protect the state river systems. These are land acquisition techniques, land use controls, intergovernmental cooperation and application of existing regulatory and administrative to the management of protected rivers. This assessment is based upon the findings of Robert C. Hoffman's and Keith Fletcher's America's Rivers: An Assessment of State River

Conservation Programs.

Land Acquisition Techniques

Land or interests in land may be acquired through fee title acquisition or donation, eminent domain or easements, by a municipality. Maine law provides for the following measures which have been used: fee title acquisition, fee title donation, conservation easements, third party assistance and purchase and lease-back arrangements. Maine law does not provide for eminent domain for fee title or acquisition, land exchanges or purchase and resale with restrictive covenants.²

These controls involve state authority to regulate land, in cooperative agreements with localities, to prevent incompatible uses. There are different classifications depending upon whether these are zoning permit programs or voluntary agreements. Maine law provides for these measures which have been utilized: state-wide land use ordinances, local land use ordinances, flood plain management, inland wetland zoning, coastal wetland zoning and unique permit systems. Maine law does not provide for limited corridor zoning or voluntary agreements.³

There are several forces which erode consensus in conservation management. These include: mixed land ownerships, overlapping authorities, hierarchical government structures, centralized expertise and financial

resources, and lack of consistency within each government level.

Nine intergovernmental strategies exist for river protection:

- consistency provisions within enabling legislation;
- state-authorized local river commissions;
- provisions for state-level implementation of local plans in the event of community-level failure to carry out these plans;
- the use of federal technical assistance by state programs;
- execution of a memoranda of understanding with federal authorities on cooperative agreements on river management;
- state funding for local plans;
- requirements for the establishment of local river advisory committees;
- provision of technical assistance to local governments for river planning.⁴

Maine has at its disposal for river conservation planning the following: state-authorized local river commissions, state intervention if local plans are not implemented, state use of federal technical assistance and consistency provisions in enabling legislation.

Maine law does not provide nor employ the following: state review and/or approval of local river plans, state

technical assistance to local river planning, no memoranda of understanding exists between state and federal agencies, state-authorized local river advisory committees nor any state funding for local river planning.⁵

Application of Related Administrative Regulatory Authorities to Protected River Management

Nine general areas of management are commonly applied to river conservation. These are the following:

- land use controls (see above);
- water quality planning;
- species management;
- regulation of natural resource extraction;
- interagency review of major permit applications;
- waste controls;
- siting requirements for energy facilities and transmission lines;
- land protection plans;
- agricultural conservation.⁶

Maine employs and/or provides for the following: state water quality certification, assigned water quality standards, nonpoint pollution controls, watershed planning, fish and wildlife management, endangered or threatened species protection, forest management - mining, oil and gas regulations, hazardous and solid waste disposal and park authorities.⁷

Maine does not provide or employ power plant, pipeline, transmission line siting rules, national areas authorities, agricultural lands protections or interagency reviews.⁸

Fletcher and Hoffman (1984) noted two overall weaknesses with Maine's rivers program: (1) the highly political nature of the plan has resulted in dropping some rivers from protected status; (2) no encouragement is provided for additions of future streams. Overall, Maine compares very favorably among the states of the nation with regard to its river program.⁹

Options

The various options discerned during a search for preservation and conservation policies are catalogued here. These are divided within a framework devised by Hoffman and Fletcher (1984) as criteria for evaluating state river programs. Here, for the purposes of this section, the framework will not serve as a set of criteria, but only as an outline to identify the functions of the various options. These will be briefly described and their sources noted.

The framework (Hoffman and Fletcher, 1984) contains these seven areas for evaluation: process and selection of rivers for protection; protections; management; consistency; program vitality; public response; and

cooperation. The options will be catalogued under each of these in accord with their applicability in function.

Process and Selection

The following options pertain to the processing and selection of river systems for special treatment.

1) Enactments into the federal or state systems. Rivers may be designated into one of these systems. "Flowing Free" (1977) describes the process by which rivers can be directly enacted into the Federal Wild and Scenic Rivers system or achieve federal designation into an existing state system. The "Maine Rivers Study" (1982) also includes both procedures as options for Maine rivers selected for special conservation efforts.¹⁰

(2) River Studies. These can be either formal or informal efforts. "Flowing Free" (1977) and the "Farmington River Study" (1980) describe the more informal means to study a river situation. These involve informal citizen contact, determining local knowledge and opinions to determine the best directions to pursue for river conservation.

The New Hampshire Office of State Planning's "Wild and Scenic Rivers for New Hampshire" provides a more systematic outline for a river area planning study. This process involves four phases: preparation; inventory and analysis; planning, to include goals establishment, preparation and

evaluation of alternative resource use and protection schemes, determination of river area boundaries, decision on alternative plans and conducting workshop meetings to disseminate the plan; and implementation, to include preparation of the management plan, program action priorities and evaluation of previous efforts.¹²

3) State enactment of temporary river commissions is described in "Maine Rivers Study" (1982). This option provides for local bodies to make assessments of chosen rivers as part of the policy determination for use in these areas.¹³

4) Administrative Designation. Such an act would enable a body in the State government executive organization to designate wild rivers administratively for protection, making designations more cost-effective on a short-term basis and allowing for promulgation of minimum zoning standards for these areas. This option has been suggested in the "Wisconsin Wild Rivers Program" (1965).¹⁴

Protection

The options examined below describe specific protection measures which can be applied to wild river systems.

1) Municipal Protection Actions.

Comprehensive zoning is a community action which could provide uniform protection to a given natural feature. A

wide range of proposed land uses can be directed to the most suitable locations in a river corridor. Development moratoria may be instituted temporarily to give communities time to develop and coordinate these measures with other localities. The proposed management plan for the Upper Delaware River (1983) and "A Greenway Strategy for Weems Creek (Maryland)" (1982) feature prominent places for this approach.¹⁵

Zoning and subdivision regulations amendments and revisions with specific river corridor protections in mind are another approach on the municipal level. These revisions include directing development and density toward population centers, providing open space and protection for sensitive areas and establishing riverfront parks near living centers ("Wood Pawcatuck Rivers Study", 1984). Another local measure is to provide and upgrade enforcement of existing laws, ordinances and regulations ("Narraguagus River Plan", 1984).

2) Reduction of Impacts. Several techniques may be employed to achieve this objective. Ireland (1979) notes that these involve the rationing of access, development of alternative routes and sites, and direct supervision of river users.¹⁶ Setback requirements for structures, development standards may be used to insure unobtrusive designs, sufficient vegetation and topography to make development inconspicuous and minimize adverse ecological

impacts, are features of the "Management Plan for the Aroostook and Big Machias Rivers" (1982).¹⁷

3. Boundary Definition. New York's Urban Cultural Park System stresses the need for a definite boundary "... to develop a manageable project; to define coherent interpretive experiences; to establish areas in each community eligible for incentives; to define the extent of the resource to be protected..." Boundaries also provide short-term means to protect the integrity of resources while land use decisions are being made.¹⁸

4) Resource Protection. Local land trust organizations may serve to protect key areas identified for private efforts. Communities and private entities in cooperation should identify sources of technical financial assistance directed to land trusts.¹⁹

5) Tax Credits and Incentives. The "Maine Rivers Study" (1982) has made tax credits for fish habitat an option to indirectly provide for river protection. Tax credits are directed toward portions of individual and corporate income taxes for the purpose of maintaining and improving riparian in-stream fish habitats.²⁰

6) Private Protection Options. The "Greenway Strategy for Weems Creek" (1982) lists some techniques which may be tailored to individual landowners: conservation easements, a land trust, mutual covenants, a variety of education projects, monitoring activities, participation in advisory

capacities and/or special district advisory boards.²¹

The Wood-Pawcatuck River Study (1984) recommends that privately sponsored land trusts be encouraged to accept easements and donations of land to conserve the scenic, rural character along a river's corridor.²²

7) Land Conservation. The Wood-Pawcatuck River (1984) study also recommends that owners of river frontage participate in activities which can protect their property values while conserving river resources. These activities include donating easement to appropriate organizations in order to realize tax advantages, selling development rights on agricultural lands to land preservation commissions and participation in programs, workshops, activities providing knowledge on septic systems improvement, conservation practices, water quality reporting and water recreation safety.²³

8) State Level Protection Measures. "Maine Rivers Study" (1982) recommends including selected rivers on the state's Critical Areas List. The Wood-Pawcatuck (1984) Rivers Study recommends that unique and fragile lands in river corridors be acquired directly by the state.²⁴

Maine Land Use Regulation Commission (LURC) provides for a series of protection zones in unorganized townships in the state of Maine. These include and encompass:

-Wetland Zone (P-WL) - all waterbodies, marshes and bogs over ten acres in size.

- Great Pond Zone (P-GP) - 250' wide strips around all lakes and ponds over ten acres in size.
- Shoreland Zone (P-SL) - 250' wide strips along rivers, except for streams draining less than fifty square miles, where the shoreland zone is 75' wide along each bank.
- Wildlife Habitat Zone (P-FW) - deer winter sheltering areas, seabird nesting sites and other significant wildlife and fisheries habitat.
- Recreation Zone (P-RR) - areas along existing hiking trails and significant canoeing rivers as well as around unspoiled remote fishing ponds and other areas of recreational significance.
- Fragile Soils Zone (P-SG) - areas of steep slopes and unstable soils.
- Flood Plain Zone (P-FP) - areas within the 100 year frequency of floodwater mark.
- Aquifer Recharge Zone (P-AR) - significant groundwater resources.
- Unusual Areas Zone (P-UA) - unusually significant scenic, historic, scientific, recreational and natural areas not adequately protected by other zoning.
- Resource Plan Zone (P-RP) - permits landowners to develop their own resource management plan for an area - if approved by LURC - allowing land use activities in accord with this plan. The purpose of this subdistrict is to provide for more efficient and effective management of

single or multiple protection subdistricts that can be realized through the use of other protection subdistricts and their related standards. The review procedure shall consist of an evaluation of the resource plan for conformance with redistricting criteria and, where applicable, for conformance with LURC permit requirements.²⁵ (Also see Appendix 2. Extracts from Land Use Districts and Standards, pp. .)

9) Water Quality Protection. The Wood-Pawcatuck Rivers Study (1984) notes two measures for realizing this option: constructing, improving and maintaining individual sewage disposal systems (ISDS) to insure that these are not degrading water quality and eliminating water contaminants from hazardous waste sites, surface impediments and runoff in river corridors.²⁶

Management

The options examined in this subsection deal with actual management of river systems and their corridors. These measures may confer protection on entire watershed systems.

1) Phased Time Frame.

New York's Urban Cultural Parks program has envisioned a phased development program for its river entities. Initial efforts focus on orienting visitors to the river

corridor, safety, monitoring use and enforcing regulations. the second phase is aimed at developing recreational facilities. The effectiveness of this phase determines the need for further restrictions in the corridor such as limiting additional use through a permit system, adding regulations or increasing enforcement.²⁷

2) Recreation Management

The Urban Cultural Parks (1980) program addresses three areas: tourist and recreational use, private sector involvement and park management. It notes the need for infrastructural support, the requirements of mechanisms or incentives to attract private capital and the necessity of management entities with the authority and technical ability to manage multi-purpose projects and coordinate the actions of others.²⁸

The Farmington Rivers Study (1980) recommends an assessment of access sites based upon present impacts. The Aroostook-Big Machias Rivers Management Plan (1982) discusses waste disposal objectives, stressing a "carry-in carry-out" policy. While trash barrels at chosen locations help prevent on-site refuse disposal, these do not encourage efforts to pick up existing litter.²⁹

3) Policy Considerations

The program for New York's Urban Cultural Parks

envision a hybrid-system management by a special purpose entity with the parks program as its only function. This mechanism would provide a state support program responsive to each community in the river corridors of the parks which would set general directions and specific policies.³⁰

The policy goals of the Farmington Rivers Study (1980) include: 1) collectively developing policies to guide local decision-making; 2) working directly and cooperatively on issues of regional concern; and 3) establishing regional priorities for implementing the management plan.³¹

"Flowing Free" (1977) lists the management objectives of the three river classifications in the National Wild and Scenic Rivers System:

Wild

1. Limited motorized land travel area.
2. No unharmonious new habitations permitted.
3. Only primitive-type public use provided.
4. New structures and improvements not permitted if these are not in keeping with the overall objectives.
5. Unobtrusive fencing, gauging stations and other management facilities may be permitted if these present no significant adverse effect on the natural character of the area.
6. Only a limited range of agricultural and other resource uses are permitted.

Scenic

1. Motorized vehicles are allowed on the land area.
2. No harmonious improvements and few habitations are permitted.
3. Limited modern screened public use facilities are permitted.
4. Some new facilities are allowed if these are screened.
5. Unobtrusive fences, gauging stations and other management facilities may be permitted.
6. A wide range of agricultural and other resource uses may be permitted.

Recreation

1. Optimum accessibility by motorized vehicles.
2. May be densely settled in places.
3. Public use areas may be in close proximity to the river.
4. New structures, habitations and intensive recreational uses permitted.
5. Management facilities permitted.
6. Full range of agricultural and other resource uses permitted.³²

The "Maine Rivers Study" (1982) suggests that state agencies identify significant rivers on their respective properties and take appropriate action. The Wood-Fawcett River Study (1984) goes further to recommend a state-wide river conservation policy (one that has been effected in

Maine).³³

The Aroostook-Big Machias River Management Plan (1982) provides for an ad hoc river management advisory committee, one that would deal with the issues of recreation, resource protection and forest productivity in combination. The committee's functions would be to:

1. Maintain close contact with state and federal permitting and regulatory agencies. Decisions would involve recreational use management as these relate to existing laws and on the debated need for hydroelectric development, water quality enforcement and protection, and appropriate means to control potential conflicts.
2. Shoreland zoning and existing municipal zoning ordinances are to be relied upon throughout the organized towns and plantations for protection, with special regulations as needed.
3. Petition Maine LURC to establish Recreational Resource Protection Zones (P-RR) along both sides of the river in unorganized townships. The committee's goal would be to serve as intermediary between the public and landowners to seek Resource Protection Plan Zone (P-RP).³⁴
4. Land Use Units. Diamant et al (1984) describe the land use districts applied to the Saco River Corridor in Maine. These three districts were developed by the corridor commission and include:

1) Resource protection district - wetlands, wildlife habitat, lands designated by landowners for inclusion; these are used primarily for farming and forestry; existing nonconforming uses are allowed.

2) Limited residential district - "low density residential" to encourage a variety of lot sizes, building locations and minimizing the visual impact of conventional subdivisions; any newly developed lot must have at least 100' of river frontage with river frontage and setback distances totaling 500' or more; nothing is to be built within the 100 year flood-water mark.

3) General development district - permits are required for new industry.³⁵

The Wood-Pawcatuck Rivers Study (1984) has outlined different management objectives based upon the physical characteristics of an area. The separate areas, constraints and objectives are listed here:

Wetlands - wetlands, prime agricultural soils and aquifer systems.

Policies: foster appreciation of wetland values; conserve upland areas associated with wetlands; protect wetlands from adverse effects of point-nonpoint pollution; protect sensitive ecological systems which provide scenic open space, unique vegetation-wildlife habitat, natural flood control and groundwater recharge areas.

Wooded Rural - aquifer systems, woodlands, wetlands, prime agricultural soils, historic sites.

Policies: encourage the retention of forested and agricultural open space; conserve rural quality and scenic diversity; maintain fishable swimmable water quality; accomodate recreational use recognizing landowners rights and environmental sensitivity.

Wildland - wetlands, headwaters, woodlands

Policies: provide for local recreational use which doesn't impact on this sensitive environment and doesn't detract from the "wilderness" character of the area; conserve the unique wilderness character of the headwaters, forests and wetlands.³⁶

LURC's comprehensive management plan for the unorganized townships of Maine provide for some managerial subdistricts. General Management Zone (M-GN) covers the residual of land management zones not covered by LURC in other zones where forest and agricultural uses are encouraged without significant restrictions. The Natural Characteristics Management subdistrict (M-NC) maintains some of those areas that characterize the natural outdoor flavor in certain large undeveloped areas, permitting only forestry, agriculture and primitive recreation.³⁷ (Also see Appendix 2. Extracts from Land Use Districts and Standards, pp. .)

5) Use of Existing Laws and Regulations. The Maine Rivers Study (1982) discusses two approaches for applying existing state laws, regulations and programs to river conservation. State-level encouragement of the use of these devices is one approach. The other is dealt with above: the use of LURC (Land Use Regulation Commission) subdistricts for protection and management for conservation of the state's most significant rivers.³⁸

The Aroostook-Big Machias Rivers management study (1982) mentions a series of measures which can be applied to river conservation management. These focus on use and development rights, tax methods and municipal land controls exercised through land transfers:

Use and development rights

- deed restrictions

- easements

- voluntary agreements

- transfer and/or purchase of development rights.

Tax methods with protective management goals -

- tax exemption

- preferential assessment

- tax foreclosures.

Land transfers -

- installment purchase

- long term lease with options to buy

- purchase and resale - purchased land resold under

conditions or restrictive covenants

-land exchange

-donations.³⁹

6) Forest Management. LURC's Comprehensive Land Use Plan for the Unorganized areas of the State of Maine (1983) is significant in that a high proportion of the regions under LURC responsibility are forest land and are used commercially. The plan quotes the Maine Forest Service's spruce-fir analysis and two recommendations for stretching out the inventory during the period of projected wood-shortages: 1) reducing the harvest pressures - directly, by decreasing the harvest - or indirectly by changing tree utilization, or 2) by increasing investments to improve forest productivity. These measures will be necessary until the regenerating forest becomes of merchantable size.

7) Controls. Two approaches for establishing land use controls within river corridors are dealt with in the Aroostook-Big Machias Rivers management study (1982):

1. Treat all lands within the shoreland zone equally in terms of limitations upon development and timber harvesting. This approach is simple to apply and implement. Landowners will, however, have to give up varying degrees of rights over their properties. Complete exclusion of some uses, while imparting certain advantages, does create management problems. Such an approach usually implies land acquisition to achieve protection goals, which

translate into high levels of expenditures.

2. Allowance of different degrees of land use within the corridors based upon impacts and those values to be maintained. This approach allows greater flexibility and permits the retention of management options by landowners. The planning requirements for application of this approach are more complex.⁴⁰

Consistency

Comprehensive river management requires a consistency of approach among different government levels, interests and agencies. The options described in this situation deal with means to promoting consistency to the benefit of a river conservation effort.

1) Regulatory vs. Consulting Bodies. The Intergovernmental Coordinating Council, recommended in the Upper Delaware River study (1983), is regarded as strictly a consulting and coordinating body, not as a layer of government or a regulatory authority. This body is to have no authority to levy taxes or enforce laws.⁴¹

2) Local Linkages. The progress report for the New York Urban Cultural Park System (1980) expresses the need for given localities in river corridors affected by the park system to develop linkages to local and state educational and cultural institutions.⁴²

3) Government Agreements. The "Maine Rivers Study" (1982)

provides two state-wide measures for attaining consistency in river conservation programs in the form of options.

The Federal Energy Regulatory Commission (FERC) has a powerful influence over energy projects involving water power. The state could initiate an agreement between Maine and FERC which would help to guarantee the integrity of state resource protection laws in relation to hydropower development.⁴³ This measure could protect river conservation programs from being undone by the effects of hydroelectric development.

The state, in consultation with local governments and private citizens, could, through the use of the Coastal Zone Management Act, insure that future federal agency actions within Maine coastal areas do not have an adverse effect on significant river resource values.⁴⁴

Program Vitality

This subsection discusses implications and program requirements for river conservation as applied to corridors. These are equally significant to watershed preservation. Local river associations are also discussed as to the importance of these to river conservation programs.

1) Program Implications. The progress report for the New York Urban Cultural Park System (1980) noted several implications of river programs in relation to corridor

communities. The program must:

- be versatile to respond to parks in communities of various scale;
- be capable of identifying and responding to controversy as necessary to protect local resources;
- establish a clear sense of mutual expectation regarding state and local commitments to each park;
- effectively catalyze preservation and reuse, leaving the long-term responsibilities to the communities.⁴⁵

2) Programming Requirements and Priorities. The Urban Cultural Parks progress report also catalogues the major priorities for action associated with a riverside park system:

- development of a means to improve delivery of technical assistance to communities;
- increase local awareness of the program;
- better coordinate state-level activities regarding the parks;
- agencies associated with the program must have adequate resources for their tasks;
- broader agency expertise must be available.⁴⁶

The report also emphasizes the importance of clear program focus at the state management levels. The mandate, geographic jurisdiction and financial capabilities of the state management entity should be set out in sufficient detail to provide a clear program focus and limits to

program administrators, along with adequate authority to the executive and legislative authorities of state government.⁴⁷

3) Private Local River Associations. Local river associations have several advantages over municipal governments with regard to river conservation. The basis of these entities are specific river valleys. These associations are nonprofit and can encourage private donations and efforts, are eligible for foundation grants, can address issues throughout a watershed, as these are not restricted by political boundaries, by defining conservation priorities and represent, coordinate, and focus on a variety of river interests. An example of the functions of these associations is that of land trusts which seek to conserve resources by acquiring property interests in areas threatened with development.⁴⁸

Some administrative alternatives to private river valley associations exist:

1. The state could designate a state agency or appoint a commission with management tasks. A state-designated river could be included in a state wild and scenic rivers system. Another option is federal designation into the National Wild and Scenic Rivers system, administered through the agencies of the Secretary of the Interior; this would provide a high level of recreational controls, but restrict landowners' options. This is a purely public measure.

2. State and river corridor landowners could administer a river's conservation program. Land use controls and leasing agreements would form the basis of this option. Some private development of recreational areas would be allowed. The duties of river management could be divided according to an activity or use to be managed. This approach mixes private and public administration.

3. Individual landowners, land management companies or river valley associations could carry out the administrative tasks of river conservation. Individuals would be responsible for protecting large parcels under single-ownership. A landowner association could encourage uniform policies and practices in a fragmented ownership situation.⁴⁹

Public Response

A crucial element for any conservation program is the response of the public, both that with direct interests and the public in general. This subsection will discuss options dealing with agencies' roles, local land owners relations and education.

1) Roles. The Intergovernmental Coordinating Council, noted in the Upper Delaware River proposed management plan (1983) is expected to function as a forum for addressing issues in the entire river corridor. Existing authorities and programs will be relied upon to accomplish the

conservation objectives.⁵⁰

2) Local Landowners. Local landowners must play a major role in river conservation programs and they must realize that their participation in these is crucial. An example from the Minnesota state rivers program (1983) is useful as an approach to the problem of dealing with local landowners on conservation questions. Landowners were approached by these administrators in an informal fashion and informed of the alternatives for conserving their river front properties. The object was to orient the landowners to those facets of conservation in their own best interests. Accountable officials who understand the need for local citizen input can make the difference between vocal opposition and strong advocacy among landowners.⁵¹

3) Education. The emphasis in regard to river conservation falls most heavily upon publications and programs as educational instruments. These are likely to be the two most effective means by which the public's attention can be focused on the central issues.

The Wood-Pawcatuck River Management Study (1984) examined both approaches. The study saw the need for coordinated information available on the river system to recreationists and the public at large. It also called for education programs to increase the public's awareness on a variety of river issues in the form of:

- workshops for riverfront landowners on topics such as

conservation measures which they can employ on their property;

- watershed association meetings with recreationists to inform them of river safety and appropriate conduct such as river cleanup and litter prevention.⁵²

The Aroostook-Big Machias Rivers Management Program (1982) suggests educational interpretative programs to emphasize the river management objectives. These would include: broadening recreational activities, highlighting the significant features of river protection, self-guided opportunities, "do-it-yourself" approaches to river exploration. Publications would include river guides, descriptive brochures, maps, signs, and recorded messages. Other educational ideas include demonstrations, visitor centers and presentations before groups.⁵³

Conservationists, private or professional, should actively support river conservation programs. On the local level they can be employed to monitor river management to ensure proper enforcement of preservation standards. They can prove valuable working to improve state programs by developing constituencies to assist in the land management process. Conservationists on the local level are frequently on the cutting edge in disseminating new ideas.⁵⁴

The implementation of river conservation programs and management alternatives depends upon cooperation among

different entities and different levels of the public and private sectors. This subsection will examine concepts and administration of cooperation and cooperative options for the local and state government levels.

1) Concepts

The Upper Delaware River Management Study (1983) recommends the creation of a river management agency with permit granting authority for development with regional impacts and for projects in critical areas. This is a measure available if voluntary cooperation among all agencies cannot be achieved.⁵⁵

The New York Urban Cultural Parks progress report (1980) cautions that state programs must be designed to provide assistance and guidance to local governments effectively without creating cumbersome new bureaucracies. A management mechanism should be designed to anticipate rivers legislation and facilitate intergration between future state and federal programs.⁵⁶

The Wood-Pawcatuck Rivers Study (1984) makes a recommendation on private coordination: the watershed association, as a private nonprofit group should extend its coordinating and advocacy role for the private and public interests of the watershed. The functions here would be to build a diverse constituency for the river and contracting landowners about the advantages of conservation easements.⁵⁷

2) Administration

The progress report for the New York Urban Cultural Park System (1980) has noted that critical administrative functions are the orchestration of all funding and budgeting requirements, technical assistance to communities, coordination of state agency involvement, general information for public awareness and involvement, and development of a system-wide plan.⁵⁸

The report recommends the establishment of a new technical staff as the most efficient means of serving the policy-making entities and providing assistance to the communities. This staff would have three functions: as a policy board to formulate recommendations, system wide decisions and to direct state participation. Integration of agency actions will require a strong policy commitment including an explicit definition as to how each agency will participate in the program.⁵⁹

Administration at the local level as it effects property owners is exemplified in one of the recommendations of the Aroostook-Big Machias rivers management program (1982). Existing leaseholders and their families would retain a leasing option, one that provided conditions which would eventually restore the river bank to its natural condition. Such existing leases would continue to be subject to state environmental regulations.⁶⁰

3) Local Government Cooperation

The Farmington River Study (1980) notes that important town policies of future land use should be consistent with each other. towns would be well to work cooperatively with assistance to develop policies and integrate these into existing town plans.⁶¹ The Weems Creek strategy (1982) makes three recommendations for local level cooperation:

1. Cities and counties would coordinate their separate land use controls, working together to jointly designate a subject river as a special protection district.
2. These jointly designated special protection districts would not be set up to constitute a "taking" or "exclusionary zoning."
3. Existing state programs could address some of the issues threatening the different resources involved in the area.⁶²

The Saco River Corridor (SacoRiver Corridor Committee, 1973) explains the relationship of the Corridor Commission to the individual municipalities. The component parts consist of:

1. appointees to the commission of municipal officers responsible to their communities;
2. planning board and municipal officers with a leadership role in designating use districts, with the provision for public hearings;
3. public hearings in any community affected by

important decisions;

4. staff hired and fired by the commissioners who have control over the commission's administrative process;

5. working relationships with appropriate regional agencies;

6. preliminary review of site selection required of development proposals in cooperation with the Maine Department of Environmental Protection.⁶³

4. State Level Cooperation

The Maine River Study" (1982) has presented three options affecting state level cooperation in river management programs:

1. The state, in cooperation with local governments, private conservation and recreation groups, private utility companies and the National Park Service initiate a river conservation and energy facilities study to coordinate river related activities and reduce potential conflicts.

2. The state governor issue a directive to all state agencies to avoid or minimize actions which might have adverse impacts on river and related resources identified in the "Maine Rivers Study."

3. The state could enter into cooperative agreements with the major landowners in Maine to conserve significant rivers.⁶⁴

The Wood-Pawcatuck Rivers study (1984) recommends the following measures to improve state management coordination

between executive agencies and local government and landowners:

- state agencies implement and monitor training programs to assist subunits within the agencies to better understand each other's functions and improve services to the public;
- state agencies develop a permitting booklet to help landowners with environmental permitting procedures;
- state agencies assist towns with the technical aspects of river management;
- state agencies assist towns to develop riverfront plans;
- encourage river communities to form an inter regional river council.⁶⁵

Criteria

This juncture is the proper one at which to develop criteria with which to select among the above-discerned options for those most appropriate to the Union River Watershed System (URWS). The goals and objectives discussed above are basic considerations here. The criteria described herein are divided among those applicable to the directions of control, protection, and uses previously outlined.

Control

*Maximum influence for local decision-making must be provided for as a basic premise.

*State and federal assistance with financial and technical resources must be available and in such a way as not to undermine or interfere with local decision-making.

*Property owners are to be encouraged, not coerced, to use the resources of the URWS wisely.

Protection

*The watershed area will be the defined area for the focus of protection efforts in the URWS.

*The ecosystem is to be shielded from irreparable damage.

*Water quality is to be maintained at a high level within the watershed system.

*Fish and wildlife habitat is to be preserved.

*Scenic qualities are to be preserved and enhanced.

Use Management

*Recreational use will be controlled.

*Commercial forestry, the basis of the regional economy, will be provided for in an ecologically sound manner.

*The integrity and identity of the Union River Watershed System will be maintained on a permanent basis.

Summary

This chapter has focused upon presenting a series of options available for preserving the URWS in a wilderness state while maintaining the economic interests of the area.

These options will be weighed against the criteria outlined above in the next chapter. A comparison with the results of this examination with the present conditions in the URWS will be drawn. The development of policy recommendations can follow from these efforts.

Chapter 5

RECOMMENDATIONS AND CONCLUSIONS

Introduction

The previous chapters have outlined the purpose and discussed the problem of protecting the Union River Watershed System, provided a view of the background for the region and the issues, and conservation options for consideration. The purpose of this chapter is to develop a series of options, weighed against the criteria listed in the last chapter, for achieving the primary purpose of this study project.

The sections of this chapter will note the recommendations and options of the Hancock County Planning Commission for preservation and conservation of the Union River system. A series of ideas will be discussed relating to the directions, problems and issues raised in Chapter 3. This will be followed by an outline of options which related to these ideas from Chapter 4 and have been evaluated against the above mentioned criteria; the outline will follow a similar format to the one used to describe the options in that chapter. Some recommendations of a general nature will be drawn in the form of observations dealing with river conservation.

Hancock County Planning Commission Recommendations

The Hancock County Planning Commission made a series of recommendations, Union River Management Plan (1984), for conserving the river corridors in the URWS. These recommendations are outlined here. The perspective of these measures is directed toward the river systems rather than a regional watershed-wide approach; however, these measures are applicable to the URWS on an area basis. The recommended measures which follow may stand alone, or, in some cases, be implemented in combination.

1. Designation as a Federal Wild and Scenic River

Designation would divide the river bodies into three segments: Wild, Scenic and Recreational. These segment designations have been examined above in Chapter 4. Restrictions on development in the corridors must be through easements, deeds, leases, contract zoning or any of these measures in combination.

2. State Protection Under State Legislation L.D. 1721

The West Branch of the Union River was identified as a "B" river in the Maine Rivers Study (1982), and the East and Middle Branches were classified as "C" rivers. State Legislation L. D. 1721, "An Act to Promote the Wise Use of Maine's Outstanding River Resources", declared that the state rivers and streams are a natural resource and noted

the interests to provide a balance among the various river uses in Maine. Certain of the rivers because of their "... unparalleled natural and recreational values, provide irreplaceable social and economic benefits to the people in their existing state..." The legislation has designated nineteen "Outstanding Rivers," twelve "Significant River Segments" and twenty-three "Outstanding River Segments" for protection by existing municipal shoreland zoning ordinances. Ordinances are to be reviewed for their adequacy in protecting the special values cited in the "Maine Rivers Study."

3. State Protection Under the Land Use Regulation Commission's Recreational Protection Subdistrict, (P-RR).

The purpose of this subdistrict is to provide significant protection for areas of valuable natural and recreational river resources through the restriction of development and intense recreational uses. The subdistrict allows only certain uses within a 250 foot zone of the river's normal high-water mark, with some requiring a permit from LURC.

4. Municipal Protection Through Local Ordinance Revision

The municipal officers of each town would need to standardize their town's ordinances. Zoning districts and land uses allowed in each district could be more concise

and consistent throughout each municipality. Enforcement of the guidelines in the revised ordinances is the most important factor in any type of municipal protection.

5. Designation as a "Municipal Wild Scenic River"

Municipalities would have to negotiate with riverfront landowners for either acquisition or easements of riverfront land. A buffer zone bordering the corridor would be enacted to protect the scenic beauty of the corridor and regulate development in the area. This type of development would allow some private development of recreational facilities and other activities which would not harm the river environment.

6. Management and Protection Efforts by Private Concerns

A landowner association, or a land management company might be formed to protect the river lands under their ownership. The group could encourage uniform policies and uses along the river which would ensure river conservation. Although a private group would rely on state zoning and environmental guidelines, there would be more opportunities for local control.

7. Establishment of a "Union River Corridor"

This measure takes the form of a permanent study and control zone along the shores of the East, West and Middle

Branches of the Union River. The limits of this proposed corridor would include the bed, waters, islands and adjacent lands 500 feet from the normal high-water mark of each shore. Final delineation of the corridor would be determined by the proposed "Union River Corridor Committee" taking into account conservation needs, recreation and open space opportunities along the river. In addition, lands behind the proposed corridor should be governed by conservation easements, zoning and other means of protecting scenic values and opportunities so that the corridor's valuable resources are not adversely affected by adjacent conflicting development.

The purpose of the proposed corridor would be to efficiently maintain the existing environmental quality of the basin and to provide adequate open space and recreation opportunities along the three branches of the Union River. A Union River Corridor Committee would act as an administrative and planning body representing the interest of both the public and private sectors within the corridor.¹

The Range of Options

Ideas

The following ideas are put forward as directions which, individually or taken in any combination, could lead to some modicum of conservation in the URWS. The purpose

here is not to provide specific solutions, but to note some steps useful for dealing with the problems and issues raised above. The specific implementation of these ideas is open to the flexibility and imagination of the planners and interested parties with the URWS.

Private conservation, environmental and citizen groups could obtain conservation easements on critical areas in the watershed. They could serve as the principle instrument by which the easements are arranged in exchange for support for tax incentives for the landowners. These groups could also serve a monitoring function to insure the compliance of all interested parties with the conservation requirements of these arrangements.

A resource protection plan, based upon high-quality timber production through applied scientific forestry programs, could be negotiated with the principal corporate land owners of the watershed. These programs would be based upon long rotations of forest harvesting and selective cutting in accordance with a scientific plan of silviculture. Wood-harvesting would be done by means which do the least harm to the ecosystem, eliminating the use of heavy equipment and possibly involving more simpler measures such as the pulling-horse of a bygone era of timber harvesting. Appropriate incentives involving the profits realized from such management must be available to the corporations such that they realize a return on long-

term investments.

Unorganized lands in the watershed, under the jurisdiction of LURC, could be placed in various forms of protection districts. Since these lands are on the periphery of the watershed, their location may be more significant to a preservation effort than the actual amount of area under LURC responsibility. The protection districts should be based upon a thorough area reconnaissance and careful study so as to provide real protections in combination with economic use of the forest resources.

A possibility exists for a river corridor commission to evolve from the present local river advisory committee presently in place. The functions of this body would include coordinating watershed communities planning efforts and monitoring compliance with existing protection measures in the corridor region. The opportunities for the river corridor commission could derive from proven value to the region as a list of achievements grows.

Recreation management could become part of the local communities' realm of regulation. This would entail a limitation of local access, restriction of users to "primitive" means of recreation and transportation and fees, payable to the communities in some manner for use of the Union River system.

Options

The options discussed in this section are drawn from the list in chapter four and evaluated against the criteria laid down there. These are organized on the same scheme as utilized in the chapter from Fletcher's and Hoffman's America's Rivers: An Assessment of State River Conservation Programs. The purpose of these options is to provide a means to operationalize the ideas described in the foregoing section.

Process and Selection

The river study effort could combine both a formal and informal process. Land owners and local population could be contacted on an informal basis to gain area background knowledge, ideas, perspectives and other inputs for a decision-making process.² A more formal process for conducting a study, developing plans and implementing these is described in Wild, Scenic Rivers Program for New Hampshire (1980); this could be combined with the informal process and arrangements for feedback to planners and population aimed at locally supported river conservation management.³

State enactment of temporary river commissions is possible and is a de facto situation in the case of the URWS presently. Broadening its responsibilities and powers in relation to the watershed could be considered.

Protection

Some actions by the municipalities are possible. An effort by the CRWS communities to coordinate their presently existing zoning structures is a small step which could lead to coordination in more significant areas. The objectives for this zoning process should be to direct development to population centers and provide specific protection to sensitive areas.⁴ The most significant action on the part of the localities would be to ensure enforcement of agreed upon protection measures in the watershed under their respective jurisdictions.⁵

Reducing impacts on the watershed area by outside individuals could be achieved through restricting access to the more sensitive areas to locales, recognized recreational groups and permit holders; these latter determined through the town officials themselves within their dominions.⁶

The boundary definition of the watershed area could come into general recognition by its use among planning circles on local, regional and state levels and among the landowning corporations.⁷

A form of resource protection could be achieved through land trusts. These would involve the acquisition of easements, interest and rights over watershed property in key areas. The crucial task is to identify sources of

assistance for the bodies seeking to effectuate land trusts.⁸

Tax credits are devices which can facilitate protection. Paper corporations could be offered these in some form to restrict some less desirable forest management practices. Other land owners could benefit in exchange for conservation easements over their properties.⁹

Certain legal forms could provide protection at the private level in the URWS. Easements have been mentioned; these could be donated to land trusts in exchange for agreed upon advantages. Deeds to critical areas could contain covenants which run with the land and provide measures of protection.¹⁰

State-level protection is also available for the URWS. LURC designations of P-RR (Recreational Resource Protection areas) and P-RP (Planned Resource Protection Areas) could be designated in appropriate areas in unorganized townships within the watershed. The water quality standards could be strengthened along the river corridors. Such areas could be designated as "scientific forestry units" along the lines of an example which exists currently as part of Baxter State Park. This unit of the Park is reserved for forest management experimentation; high-quality timber production would be the economic goal of such areas.¹¹

An approach to managing the URWS on the community level might be to utilize a phase time-frame for

introducing protection and preservation measures. The more lenient measures could be the initial ones for the watershed area, to be followed by more restrictive means. These mechanisms would be developed based upon observation of the initial measures effects, and adjusted to the satisfaction of the communities. Experience with the different measures will indicate the best directions to be pursued within the different localities.¹²

Certain measures can be taken in regard to recreational management on the local levels. The access points to the river bodies could be assessed with regard to their impacts on the surrounding properties, river system, road net, etc.¹³ Recreational use could be encouraged which is based upon the experience of wilderness through primitive means. Restrictions on group size, requirements for dispersal of large parties and rotation of access and lay-up sites could serve to reduce the impacts of recreational activities on the URWS.¹⁴

A managerial policy consideration is in order. As noted above, the present ad hoc river advisory committee could evolve into a policy making body. A significant task at the outset for such a body would be to develop policies to guide the communities in working with state-level entities on issues of regional and local concern. The purposes would be to establish priorities to implement managerial measures in the URWS.¹⁵

LURC provides for a Natural Characteristics Management area (M-NC) in unorganized townships. Such a designation has potential for use in these areas, as noted above, in combination with the P-RP (Planned Resource Protection area).¹⁶

Controls, due to their politically sensitive nature, must be applied in a very judicious manner. Only those land use controls, for example, should be encouraged which can be differentiated by degree in accord with ecological impacts. These should, wherever possible, be accompanied by tax incentives to encourage deed restrictions, conservation easements and agreements. The key term is agreement as opposed to enforcement.¹⁷

Consistency

A first step in ensuring consistency of management for the URWS is the building and reinforcement of linkages among the ad hoc Union River Advisory Committee, Land Use Regulation Commission (LURC), Maine Department of Conservation, Hancock County and the URWS communities themselves.¹⁸

Some state-level capabilities may play a useful coordinating role here. The state offices could refine their processes for service delivery to the communities. State activities relating to the URWS could be better coordinated at that level. The resources to achieve the

conservation goals could be made forthcoming.¹⁹

An important measure would be state-level agreements with the agencies of the federal government in respect to river conservation policies. A river valley association could play a role in encouraging more uniform policies, both at the state level and toward the URWS.²⁰

Public Response

Among the roles of the Union River Advisory Committee, one that could be assumed immediately, would be to serve as a forum for issues affecting the watershed. The objectives here would be to make these issues public knowledge and to provide a medium for exploring these for possible resolutions.²¹

Small local land owners could be approached informally, through the Advisory Committee, as in the Minnesota example. The object would be to explain the alternatives and advantages available to them for their further consideration. Pressure cannot play a role, overtly or subtly, in these efforts. The strategy is to arouse interest, and, perhaps, participation in preservation programs.²²

An education program, available to the public but targeted to specific groups, might be developed which explains the management objectives for the URWS to communities, county officials, regional and state level,

private and corporate interests.²³

A most effective step would be to build a base of interest and support among local and regional groups with conservation, preservation or environmental interests for conservation of the URWS. The advantages to be gained are these:

- such groups can provide influence and disseminate information about the URWS;

- these groups are often part of a network of such groups through which further attention to the URWS can be drawn and information gleaned;

- members of such groups can be very dedicated to special interests connected with the URWS and act on the watershed's behalf with high motivation.²⁴

Cooperation

The concept of a watershed association, which has been a feature of previous discussions in this chapter, is a body which can build a constituency oriented towards the URWS and to contact with land owning interests in the watershed.²⁵

Local administration of any conservation program should be the direction pursued here. Local governments would coordinate the enforcement of any measures decided upon for the URWS. Integration of community policies in plans is an objective. Areas requiring special protection

could benefit from joint community designation.²⁶

State actions could include facilitating agreements with landowners to conserve and preserve critical portions of the watershed.²⁷ An effort on the state level to improve the cooperation and coordination between government agencies and local governments is in order here.²⁸

Recommendations for Wild River Conservation Planning in a Northern Forest Region

Some general recommendations for conserving wild river systems are presented in this section. Specific measures will vary from river system to river system. These are meant to be applied in the policy considerations.

The northern forest system has an appearance of durability, due in part to its weathering colder, wetter climatic areas, and its regrowth in northern New England during the twentieth century after intensive cutting over three hundred years. This perceived durability may, in fact, be a misperception. Such factors as acid rain, pressures for increased wood harvesting, recreation and developmental impacts may well undermine the forests' future growth over time. Since river systems play a crucial role in forest areas, environmentally and economically, conservation planning may well center around these waterbodies in any scheme to preserve forest resources.

Selection of the river system to be the focus of a planning effort must have an adequate rationale as a basis. Some fundamental questions must be addressed: Is the particular river system endangered? What is the nature of the threat? What factors and features make this river worth conservation efforts? Moreover, for whom is the river system being conserved? Recreational and resource exploitation, as has been discussed above, focus on different priorities.

A thorough study is necessary on which to base the development of conservation and preservation options. Such an effort will begin to provide answers to the questions noted above. Sound decision-making necessitates that a complete understanding of the river system would usually begin with defining the watershed boundaries as the initial limits to that system.

Two themes are the central focus of most issues in river conservation: control and use. The past trends should be explored to gain an understanding of the present and make realistic projections into the future. The case of the Union River Watershed shows a past of small-scale farming, forest resource exploitation and management, and little in the way of residential industrial development. Presently the region is a wood resource for outside corporations. The immediate future would not seem to be appreciably different, indicating that real change in the

watershed system is unlikely to be supported by local residential or major landholding interests.

Problem areas may be determined from the study of the river region and in reference to the issues discussed above. The study effort will probably make the pattern of problems related to the system apparent. A prioritization of resources and efforts can be decided upon, based upon the rationale for conserving and preserving the river system.

It is important to develop criteria by which to analyze the priorities and decide among options for taking action. The best approach to the specific problems, rather than focusing upon immediate symptoms, must seek to address the issues of control and use in a comprehensive manner. Failure to do so will probably mean another unforeseen set of problems which will manifest themselves at some point in the future. As an example, ignoring the opposition to outside regulation by local residents in the URWS will probably increase enforcement costs for this regulation, encourage abuse of the river system and ultimately erode political support for creative planning which might meet the interests of conservation and economic uses in the area.

A basic knowledge of the legal system and available pertaining legislation may prove at least as useful as any scientific data gleaned from the river system. Such a fund of knowledge may indicate what can be done to effectively

preserve and conserve a system. Recent trends in legislation on the national, Maine state and local levels have been favorable to conservation of river ecosystems. It is possible to build programs for river systems that are acceptable on the various levels of government and to the private sector which can stand up to court challenges and effectively accomplish their purposes.

Summary

This project paper has attempted to accomplish the following:

- 1) Provide a rationale for conserving and preserving the Union River Watershed System. Its status as one of the few clean watersheds proximal to the Atlantic Ocean and the wilderness character of its waterways make it a proper candidate for consideration without regard to the less than "A" classification in the "Maine Rivers Study" (1982).

- 2) Relate background knowledge of the area, issues and problems in the URWS. The region is one of Norumbega Hills and Eastern Bogs, with a maritime climatic pattern. The major land owners are paper corporations who utilize the forest resources. The principal problems involve ecologically safe exploitation of the forest region, the disinterest of local residents in higher-level controls in the watershed and the recreational impacts on the system.

3) Discern potential river system management options. Three approaches have been examined. The present ad hoc Union River Advisory Committee could evolve into a river corridor commission of watershed association which would represent regional interests, monitor compliance with conservation regulations and coordinate community planning as it relates to the URWS. A resource plan could be developed which provided for the URWS as a specially managed area for high quality timber based on scientific forest management. Private groups could obtain easements, deed restrictions, covenants, and such over critical areas within the watershed in exchange for tax incentives. The corporate landowners could be offered property and income tax advantages in trade for restrictions over certain areas within the watershed, implementation of the special forest area and be allowed to reap the profits of these efforts and investments.

4) Decide among the most suitable options. The criteria relate to control, protection and use management. Local control, with state-level technical assistance available is the object here. Aesthetic and ecological qualities are to be maintained. Recreational impacts are to be controlled by limiting use and commercial forestry practiced in an environmentally-sound manner. The objective is to conserve the URWS in its integrity as a watershed system.

5) Draw some recommendations useful for similar conservation efforts. A sound rationale for conserving a river system should be decided upon followed by a thorough study of the system. Criteria for deciding upon management options should focus on the issues of control and use and problem areas developed from the study prioritized in accord with the rationale. A knowledge of legal and legislative resources will aid in developing a management program from the conservation options selected for the river system.

It is hoped that this effort can make some contribution toward resource planning, both in the Union River Watershed System and for river conservation in general. The significance of rivers in our national development and to our environment has become apparent in the very recent past. This significance should lead us to further thought - and action.

List of Appendices

1. Federal, State and Local Regulations
2. Extracts from Land Use Districts and Standards for the Plantations and Unorganized Townships in the State of Maine (Latest Revision, February 1983)
3. State of Maine Act to Create the Saco River Corridor Commission
4. Maine Rivers Act

FEDERAL STATE AND LOCAL REGULATIONS

There are several existing laws and regulations, on both the federal and state levels which relate to effective management, conservation and development of the study area. This chapter will examine these laws and regulations and summarize the significant features of each.

A. FEDERAL LAWS AND REGULATIONS

1. Environmental Protection Agency.

- a. Federal Water Pollution Control Act: Amendments of 1972 - 33 U.S.C. 1251 et seq.

An act to eliminate the discharge of pollutants into navigable waters by 1985, to limit the amount of pollution from future development along the river. The act was also the basis of the "208" water quality planning, and waste water treatment management plans.

- b. The National Environmental Policy Action of 1969 - 42 U.S.C. 4321 et. seq.

Regulations requiring identification and evaluation of the environmental affects of proposed actions and their alternatives, before final decisions are made. If proposed action is deemed to have a significant effect on the environment, a full environmental impact statement is required.

2. National Park Service, Department of Interior.

- a. The Wild and Scenic Rivers Act of 1973 - 16 U.S.C. et seq.

Selected rivers of the Nation, which possess valuable scenic, recreational, geologic, fish and wildlife, historic, cultural or other beneficial assets, shall be preserved in their free-flowing condition, and the selected rivers and their immediate environment shall be protected for the advantage and enjoyment of present and future generations.

- b. Land and Water Conservation Fund-Act 1 of 1956 16 U.S.C. 4601-4-460-11.

A law enacted to assist in preserving, developing and assuring public access to outdoor recreational resources. The Federal Government allocates funds for outdoor recreation planning and the acquisition and development of recreational sites. A two-fifths portion of these monies are allocated evenly to the fifty states, while the three-fifths portion is granted on the basis of need. Funds may also be allotted for the acquisition of outdoor recreational facilities in national parks and forests.

c. Federal Land Policy and Management Act of 1976 (Public Law 94-579).

This law directs the Secretary of Interior to carry out the following plan of action when granting right of way access across federal lands or federally assisted purchases.

1. Impose terms and conditions designed to minimize damage to scenic and aesthetic values, fish and wildlife habitats, and to protect the environment.
2. Require compliance with appropriate water quality standards.
3. Require a route that will cause the least damage to the environment, considering feasibility and other factors.

3. Fish and Wildlife Service

a. The Fish and Wildlife Act of 1956 - 16 U.S.C. 776(C)-760(G)- and the Fish and Wildlife Coordination Act - 16 U.S.C. 661-666C

An act that assures consultation of any Federal Agency with the U.S. Fish and Wildlife Service, the head of the Maine Department of Inland Fisheries and Wildlife, and the National Maine Fisheries Service before major undertakings designed to control or modify any body of water. Also agencies charged with the protection of fish and wildlife resources are responsible for examining the impact of any licensing or construction activity, insuring fish and wildlife resources equal consideration, and appropriate coordination within water resource development programs.

b. Endangered Species Act of 1973 - 16 U.S.C. 1531 et seq.

An act to prevent extinction of additional species of fish, wildlife, and plants due to economic growth and development. The Department of the Interior (D.O.I.) is authorized to acquire land and issue a list of endangered species and protective regulations. Import, export or sale of these species are violations punishable by fines, and enforced by the D.O.I., the Treasury Department, and the Coast Guard. In addition, Federal agencies are required to avoid or mitigate actions which jeopardize the continued existence or result in the destruction or modification of the critical habitat of these endangered species.

4. Federal Energy Regulatory Commission

a. Federal Power Act - 16 U.S.C. 791a et seq.

Formation of the Federal Energy Regulatory Commission responsible for issuing permits and licenses for non-federal hydro-power projects, and regulating rates and other aspects of such projects.

5. Bureau of Civil Emergency Preparedness

a. The Flood Disaster Protection Act of 1973.

An act requiring communities to develop local flood plain ordinances, in order to be eligible for federal flood insurance. The act conditions federal reconstruction funds on the adoption of adequate ordinances.

6. Other Federal Laws Affecting Union River Study Area.

- a. The Common Law Doctrine of Public Trust
- b. National Natural Landmark Recognition Program

B. STATE LAWS AND REGULATIONS

1. Department of Environmental Protection

a. Protection of Waters Title 38 sec 363 MRSA.

An act designating four standards (A,B,C,D) for the classification of surface waters, and determining the types of usage and degree of contamination permitted.

b. Protection and Improvement of Air Title 38 - 581 et seq.

A regulation controlling the present and future sources of emission of air contaminants insuring the continued health, safety and general welfare of all the State citizens. The act also protects property values, plant and animal life.

c. Great Ponds Act Title 38 - 386 et seq MRSA.

An act to protect the scenic, recreational, cultural, historical and environmental values of any natural inland water body in excess of 10 acres which is owned by two or more persons, is designated a "Great Pond." Using a permit procedure the DEP regulates dredging or removal of materials and the construction or repair of permanent structures below the normal high water line in a "Great Pond." Also regulated are land alterations or the depositing of soil or fill in a proximity which would allow it to wash into a "Great Pond."

d. Site Location Act Title 38 - 481 et seq MRSA.

The purpose of this act is to control the location of large subdivisions or developments to minimize adverse environmental impacts which may result from poor site selection not suitable for development without exposing the environment, and in consequence the public to serious injury.

e. Solid Waste Disposal Act Title 38 3 417 421 MRSA.

An act to prohibit the placing, depositing or discharging of refuse directly or indirectly into the inland waters or tidal waters, or on the ice, or banks of such water which may allow refuse to fall or be washed into the waters in any manner.

f. Litter Control Act Title 38 423

Prohibits the discharge or spillage of sewage, refuse or other waste material from a watercraft into inland waters, or the ice thereof. Also prohibits the discharge or spillage of sewage, refuse or other waste onto the banks of inland waters in such a way that it may fall or be washed into such waters.

g. Milldams and Canals Act Title 38 - 651 et seq.

Allows that any man may on his own land erect and maintain a watermill and dams to raise water for the purpose of working that land. He may also on his own land cut a canal and erect walls and embankments not exceeding one mile in length, to divert the streams natural channel for the purpose of property mills or machinery.

h. Mining Reclamation Act Title 38 - 490.

Requires that all mining activities include provisions for safety and reclamation of the affected land area; encouraging productive use by planting forests, seeding grasses and legumes, and planting crops, etc.

i. Septic Tank and Cesspool Waste Act Title 38 - 1320.

By applying to the DEP for approval, any person may provide a site for the disposal of all waste refuse, effluent, sludges or other materials from septic tanks and cesspools.

2. Land Use Regulation Commission

a. Land Use Regulation Commission 12 seq. 206A MRSA

The Land Use Regulation Commission (LURC) was created to plan and regulate the use of lands in the plantations and unorganized townships. LURC's publication Land Use Districts and Standards states its policy: "to protect the natural resources by prohibiting those uses that will cause undue degradation to such resources and that are suitable in terms of social, economic and cultural impact."

Most development occurring in these areas requires approval of a LURC permit. LURC's regulations require many land uses to meet certain standards to assure planned development.

3. Inland Fisheries and Wildlife

a. Rivers, Streams and Brooks Alteration Act Title 12 7776 - 7788 MRSA.

Permit required for dredging, filling, or erecting a causeway, bridge, marina, wharf, dock or other permanent structure in, on, or over any river stream, brook, or on the adjacent land.

b. Fishways and Dams Title 12 - 770 et seq. MRSA.

The Department of Inland Fisheries and Wildlife DIFW may require owners of dams and similar obstructions to construct a fishway in those waters, with migrating fish such as, salmon, shad, and alewives.

c. Endangered Species Act Title 12 Sub Chap I 7751 - 7756 MRSA.

It is the policy of the State of Maine to conserve, protect, maintain and enhance the number of various species of fish or wildlife which are in danger of being rendered extinct. It is also policy to protect the ecosystems to which these species depend.

4. Department of Human Services

a. State Plumbing Code Part II

Regulating the installation of private sewage disposal systems, community sewage systems. It requires a permit prior to beginning installation. This shall include installation, replacement, alteration or enlargement of a system unless the Department determines that no permit is required under certain conditions.

5. Maine Historic Preservation Commission

- a. Maine Historic Preservation Commission (MHPC) was created to oversee historic preservation activities, and to carry out the National Register Program. Federal Energy Regulatory Commission (FERC) requires archeological excavation to insure preservation of suitable resources before a dam can be constructed.

6. State Planning Office

a. Manadatory State Shoreland Zoning and Subdivision Control Act Title 30, MRSA. Section 1914

To promote public health, safety and general welfare, it is declared that land within 250 feet of the normal high water mark of any pond, river or salt water body be subjected to zoning and subdivision controls.

b. State Critical Areas Program

Established the Maine Critical Areas Advisory Board to advise the State Planning Office on policy and other related matters. Established a Register of Critical Areas, an inventory of significant natural, scenic, scientific or valuable historical sites or areas.

c. State Legislation L.D. 1821: An Act to Promote the Wise Use and Management of Maine's Outstanding River Resources

The legislation has identified certain rivers that are to be protected by existing municipal shoreland zoning ordinances, and which shall be reviewed for their adequacy. The West Branch of the Union River was designated as a "B" river, protected under this Act.

d. Other State Laws

1. Tree Growth Tax Law Title 36 - 571 et seq. MRSA
2. Coastal Welfare Law Title 38 - 472 et seq. MRSA
3. Conversion of Seasonal Dwellings Law Title 33 1601 - 103 et seq. MRSA.
4. Pesticides Law Title 22 - 1471A et seq. MRSA
5. Fishing Regulation Title 12 - 2551 et seq. MRSA
6. Maine Boat Law Title 12 - 7791 et seq. MRSA

C. LOCAL LAWS AND REGULATIONS

1. Amherst - Land Use Guidance Ordinance 3/31/80 (See Map, page)
2. Aurora - Shoreland Zoning Ordinance 7/16/74 (See Map, page)
3. Eastbrook - Land Use Guidance Ordinance 8/22/77 (See Map, page)
4. Great Pond - Land Use Guidance Ordinance 3/81 (See Map, page)
5. Mariaville - Land Use Guidance Ordinance 2/79 (See Map, page)
6. Waltham - Shoreland Zoning 3/11/76 (See Map, page)
7. Osborn Plantation, T22 MD, T28 MD, T34 MD - under LURC jurisdiction (refer to the Maine Land Use Regulation Commission Land Use Districts and Standards, 2/3/83, and maps, pages ,)

Although all seven towns in the study area have either adopted a shoreland zoning ordinance, or are under the LURC zoning, some are encountering problems. Citizens are occasionally unaware of these local shoreland regulations, and selectmen/code enforcement officers do not have the time to enforce all of the state and local laws.

Land Use Districts and Standards

**For The Plantations And
Unorganized Townships
Of The State Of Maine**

Chapter 10 **of the Commission's Rules and Regulations**

Initially Adopted January 12, 1977

Latest Revision February 3, 1983

Land Use Regulation Commission

MAINE DEPARTMENT OF CONSERVATION

C. NATURAL CHARACTER MANAGEMENT SUBDISTRICT (M-NC)

1. Purpose

The purpose of the Natural Character Management Subdistrict is to maintain some of the areas that characterize the natural outdoor flavor and spirit of certain large undeveloped areas of the jurisdiction and to permit only forestry and agricultural practices and primitive recreation. Unrelated development that might interfere with these activities and natural values will not be permitted.

2. Description

Areas which the Commission determines:

- a. are appropriate for forest management activities;
- b. shall comprise certain few large areas which are remote and have a natural and wild character; the area is significant because of a variety and concentration of important features which in the aggregate include significant topographic features and distinctive recreation resources characteristic of the "Maine Woods" in their totality; such resources include, but are not limited to, hiking trails, canoe streams, and scenic overviews; such features include, but are not limited to, lakes, remote ponds, mountains and valleys;
- c. comprise at least 10,000 contiguous acres of land and water area; and
- d. support only those land use activities which do not appreciably detract from the natural character of the area.

Any proposal for inclusion of an area within an M-NC Management Subdistrict, unless it is made by the owner or owners of such area, shall be considered by the Commission only when a written statement has been made stating how such area meets the criteria stated above. Such statement shall be available to the public at the time of publication of notice for the public hearing at which such proposal shall be heard.

The M-NC Management Subdistrict may surround different Protection, Management, and Development Subdistricts. In delineating boundaries for the M-NC Subdistrict, the Commission may consider property ownership or township boundaries, ridge lines, shorelines, watershed boundaries, roadways, or other rights of way or other appropriate natural or man-made features.

3. Land Use Standards**a. Uses Allowed Without a Permit**

The following uses shall be allowed without a permit from the Commission within M-NC Management Subdistricts subject to the applicable requirements set forth in Section 10.17 of this Chapter:

- (1) Forest management activities;
- (2) Agricultural management activities;
- (3) Land management roads;
- (4) The operation of machinery and the erection of buildings and other structures used primarily for agricultural or forest management activities;
- (5) Level A mineral exploration activities, including associated access ways;
- (6) Service drops;
- (7) Surveying and other resource analysis;
- (8) Mineral extraction operations affecting an area less than 5 acres in size, for road purposes;
- (9) Primitive recreational uses including fishing, hiking, hunting, wildlife study and photography, wild crop harvesting, trapping, horseback riding, portaging, tent and shelter camping, cross country skiing, and snowshoeing;

- (10) Campsites;
- (11) Motorized vehicular traffic on roads and trails, and snowmobiling;
- (12) Wildlife and fishery management practices;
- (13) Trails, provided they are constructed and maintained so as to reasonably avoid sedimentation of water bodies;
- (14) Signs listed as exempt in Section 10.17,B of this Chapter;
- (15) Level A and B road projects;
- (16) Sewage sludge disposal; and
- (17) Emergency operations conducted for the public health, safety, or general welfare, such as resource protection, law enforcement, and search and rescue operations.

b. Uses Requiring a Permit

The following uses may be allowed within M-NC Management Subdistricts upon issuance of a permit from the Commission pursuant to 12 M.R.S.A., Section 685-B, and subject to the applicable requirements set forth in Section 10.17 of this Chapter:

- (1) Level A mineral exploration activities, including associated access ways, which are not in conformance with the standards for such activities in Section 10.17, A;
- (2) Level B mineral exploration activities;
- (3) Mineral extraction operations affecting an area 5 acres or greater in size, for road purposes; mineral extraction operation, affecting an area less than 5 acres in size, for road purposes and which are not in conformance with the standards established for such activities in Section 10.17,A of this Chapter;
- (4) Water impoundments;
- (5) Campgrounds;
- (6) Filling, grading, draining, dredging, and alteration of the water table or water level for other than mineral extraction;
- (7) Sewage sludge disposal which is not in conformance with the standards established in Section 10.17,B of this Chapter;
- (8) Remote camps;
- (9) Other structures, uses, or services that are essential for the exercise of uses listed in Section 10.15,C,3,a and b; and
- (10) Other structures, uses or services which the Commission determines are consistent with the purposes of this Subdistrict and of the Comprehensive Land Use Plan and are not detrimental to the resources or uses which they protect.

c. Special Exceptions

The following uses may be allowed within M-NC Management Subdistricts as special exceptions upon issuance of a permit from the Commission pursuant to 12 M.R.S.A., Section 685-A, 10, and subject to the applicable requirements of Section 10.17 of this Chapter, provided that the applicant shows by substantial evidence that (a) there is no alternative site which is both suitable to the proposed use and reasonably available to the applicant; (b) the use can be buffered from those other uses and resources within the subdistrict with which it is incompatible; and (c) such other conditions are met that the Commission may reasonably impose in accordance with the policies of the Comprehensive Land Use Plan:

- (1) Utility facilities;
- (2) Non-exempt signs; and
- (3) Level C road projects.

d. Prohibited Uses

All uses not expressly allowed, with or without a permit or by special exception, shall be prohibited in M-NC Management Subdistricts.

10.16 PROTECTION SUBDISTRICTS AND LAND USE STANDARDS

Pursuant to the Commission's Comprehensive Land Use Plan, the following Protection Subdistricts are established.

A. AQUIFER PROTECTION SUBDISTRICT (P-AR)

1. Purpose

The purpose of the P-AR Protection Subdistrict is to protect the quantity and quality of ground water supply used or potentially available for human or industrial consumption.

2. Description

Areas identified by the Commission as having soil rated as highly permeable and/or surficial geologic units that are highly permeable and are hydrologically connected through highly fractured bedrock units to a ground water supply which is currently, or anticipated to be, used for public, industrial or agricultural purposes, or areas identified by the Commission as aquifer recharge areas based on studies by appropriate qualified persons or agencies where the Commission determines that such areas warrant water quality protection.

3. Land Use Standards

a. Uses Allowed Without a Permit

The following uses shall be allowed without a permit from the Commission within P-AR Protection Subdistricts subject to the applicable requirements set forth in Section 10.17 of this Chapter:

- (1) Primitive recreational uses, including fishing, hiking, hunting, wildlife study and photography, wild crop harvesting, trapping, horseback riding, tent and shelter camping, canoe portaging, cross country skiing, and snowshoeing;
- (2) Motorized vehicular traffic on roads and trails, and snowmobiling;
- (3) Wildlife and fishery management practices;
- (4) Service drops;
- (5) Level A mineral exploration activities, including associated access ways;
- (6) Non-permanent docking and mooring structures;
- (7) Surveying and other resource analysis;
- (8) Signs;
- (9) Agricultural management activities, except for fertilizer application;
- (10) Forest management activities, except for fertilizer application;
- (11) Emergency operations conducted for the public health, safety or general welfare, such as resource protection, law enforcement, and search and rescue operations;
- (12) Trails, provided they are constructed and maintained so as to reasonably avoid sedimentation of water bodies; and
- (13) Level A road projects.

b. Uses Requiring a Permit

The following uses may be allowed within P-AR Protection Subdistricts upon issuance of a permit from the Commission pursuant to 12 M.R.S.A., Section 685-B, subject to the applicable requirements set forth in Section 10.17 of this Chapter, and provided that the recharge capability of the area remains the same as it would be under the area's natural state:

- (1) Agricultural management activities which are not in conformance with the standards for such activities in Section 10.17, A, of this Chapter;
- (2) Application of fertilizers for forest or agricultural management activities;
- (3) Land management roads and water crossings;
- (4) Level B road projects;
- (5) Level A mineral exploration activities, including associated access ways, which are not in conformance with the standards for such activities in Section 10.17, A;
- (6) Mineral extraction for road purposes;
- (7) Permanent docking and mooring structures;
- (8) Single family detached dwelling units, and campgrounds and campsites provided that sewage is disposed of in such a manner as to not endanger the water quality of the aquifer;
- (9) Utility facilities, excluding service drops;
- (10) Water impoundments;
- (11) Other structures, uses or services that are essential for uses listed in Section 10.16, A, 3, a and b; and
- (12) Other structures, uses or services which the Commission determines are consistent with the purposes of this Subdistrict and of the Comprehensive Land Use Plan and are not detrimental to the resources or uses which they protect.

c. Special Exceptions

The following uses may be allowed within P-AR Protection Subdistricts as special exceptions upon issuance of a permit from the Commission pursuant to 12 M.R.S.A., Section 685-A, 10, and subject to the applicable requirements set forth in Section 10.17 of this Chapter, provided that the applicant shows by substantial evidence that (a) there is no alternative site which is both suitable to the proposed use and reasonably available to the applicant; (b) the use can be buffered from those other uses and resources within the subdistrict with which it is incompatible; and (c) such other conditions are met that the Commission may reasonably impose in accordance with the policies of the Comprehensive Land Use Plan:

- (1) Level C road projects; and
- (2) Level B mineral exploration activities

d. Prohibited Uses

All uses not expressly allowed, with or without a permit or by special exception, shall be prohibited in P-AR Protection Subdistricts.

B. FLOOD PRONE AREA PROTECTION SUBDISTRICT (P-FP)

1. Purpose

The purpose of the P-FP Protection Subdistrict is to regulate certain land use activities in flood prone areas in order to minimize the human and financial costs of floods and flood cleanup programs, by protecting adjacent, upstream and downstream property from flood damage, by minimizing danger from malfunctioning water supply and waste disposal systems in flood prone areas; and to comply with the cooperative agreement between the Land Use Regulation Commission and the Department of Housing and Urban Development regarding the regulation of land use so that flood insurance can be made available to persons in flood prone areas.

2. Description

Areas located within the 100 year frequency flood plain as identified by the Commission after consideration of relevant data including, without limitation, identification of areas as flood prone by state or federal agencies, historical data, and the National Cooperative Soil Survey.

3. Land Use Standards**a. Uses Allowed Without a Permit**

The following uses shall be allowed without a permit from the Commission within P-FP Protection Subdistricts subject to the applicable requirements set forth in Section 10.17 of this Chapter and Section 60.3(d) of the National Flood Insurance Program regulations:

- (1) Primitive recreational uses, including fishing, hunting, hiking, wildlife study and photography, wild crop harvesting, trapping, horseback riding, tent and shelter camping, canoe portaging, cross country skiing and snowshoeing;
- (2) Motorized vehicular traffic on roads and trails, and snowmobiling;
- (3) Wildlife and fishery management practices;
- (4) Level A mineral exploration activities, including associated access ways;
- (5) Signs;
- (6) Surveying and other resource analysis;
- (7) Trails, provided they are constructed and maintained so as to reasonably avoid sedimentation of water bodies;
- (8) Campsites;
- (9) Emergency operations conducted for the public health, safety or general welfare, such as resource protection, law enforcement, and search and rescue operations;
- (10) Level A road projects;
- (11) Service drops;
- (12) Non-Permanent docking and mooring structures;
- (13) Forest management activities;
- (14) Land management roads and water crossings;
- (15) Agricultural management activities; and
- (16) Mineral extraction affecting an area less than 5 acres in size, for road purposes.

b. Uses Requiring a Permit

The following uses may be allowed within P-FP Protection Subdistricts upon issuance of a permit from the Commission pursuant to 12 M.R.S.A., Section 685-B, and subject to the applicable requirements set forth in Section 10.17 of this Chapter and Section 60.3(d) of the National Flood Insurance Program regulations:

C. FISH AND WILDLIFE PROTECTION SUBDISTRICT (P-FW)

1. Purpose

The Purpose of this subdistrict is to conserve important fish and wildlife habitats essential to the citizens of Maine because of their economic, recreational, aesthetic, educational or scientific value.

2. Description

This subdistrict shall include wildlife and fishery habitat the Commission determines are in need of special protection pursuant to the following standards:

- a. Significant fish spawning nursery and feeding areas and critical habitat of endangered and threatened fish and wildlife species ascertained by state or federal agencies.
- b. The shelter portions of deer wintering areas when the following conditions are met:
 - (1) The provisions of 12 M.R.S.A., Section 685-A,6,A, are met; or
 - (2) In the absence of agreement described in 12 M.R.S.A., Section 685-A,6,A, the following must be shown before designation as P-FW:
 - (a) Documentation of use as a deer wintering area during a minimum of two years over the most recent 10 year period at the time of designation; for at least one of such years, such documentations shall be based upon ground observation by a wildlife Biologist of the Department of Inland Fisheries and Wildlife in winter conditions showing extent of deer use for winter shelter as evidenced by deer tracks, current and past deer browsing, deer pellet depositions, and/or bedding sites, such that a population of at least 20 deer per square mile in the shelter area may be estimated. A P-FW Subdistrict may be established for an area with an estimated population of fewer than 20 deer per square mile if, in the Commission's judgement, it is necessary to meet the purpose of the P-FW Subdistrict. In this regard, the Commission may be guided by *Planning for Maine's Fish and Wildlife Resources*, September 30, 1975, of the Maine Department of Inland Fisheries and Wildlife; and
 - (b) Occurrence of forest stands that are composed of over 50 percent conifer stems and contain a conifer crown closure of over 50 percent with predominant tree heights of over 35 feet. Where an Interim P-4 or Permanent P-FW Protection Subdistrict has been established for the purposes of protecting a deer wintering area, that subdistrict shall not be reduced in size as a result of cutting which would cause such subdistrict to no longer satisfy the requirements of this paragraph.
- c. Upon request or agreement of the landowner, the configuration of a P-FW Protection Subdistrict established under Subsection 2,b,(2) hereof may be modified in order to provide for Subdistrict boundaries of reasonably regular shape.
- d. Coastal nesting islands or portions thereof, to be zoned as P-FW will be determined by the following:
 - (1) Documentation of use by significant numbers of island nesting sea birds through an on-site investigation as reported in the U.S. Fish and Wildlife Service, Maine Cooperative Wildlife Research Unit's Maine Sea Bird Inventory. Breeding population estimates shall be based upon counts of individual nesting pairs and/or the visual estimate of the total nesting population of a species.

- (2) An island or portion thereof will be considered essential to the maintenance of sea bird populations when: (a) it provides habitat for one percent or more of Maine's total island breeding population of a particular species, or (b) the sum of such percentages for all species on the island is 1 or greater (the individual percentage is determined by dividing the island breeding population by Maine's total island breeding population for a particular species as determined by the latest information available from the Maine Sea Bird Inventory), or (c) when, in the Commission's judgement, protection of an island or portion thereof is essential to the maintenance of the distribution and abundance of a specific species of sea bird.

The colonial sea bird species considered in the above determination include, but are not limited to: common eider (*Somateria mollissima*), Atlantic puffin (*Fratercula arctica*), razorbilled auk (*Alca torda*), black guillemot (*Cepphus grylle*), snowy egret (*Leucophogx thula*), glossy ibis (*Plegadis falcinellus*), arctic tern (*Sterna paradisaea*), common tern (*Sterna hirundo*), roseate tern (*Sterna dougallii*), herring gull (*Larus argentatus*), great black-backed gull (*Larus marinus*), laughing gull (*Larus atricilla*), Leach's petrel (*Oceanodroma leucorhoa*), double-crested cormorant (*Phalacrocorax auritus*), black-crowned night heron (*Nycticorax nycticorax*), and great blue heron (*Ardea herodias*).

3. Land Use Standards

a. Uses Allowed Without a Permit

The following uses shall be allowed without a permit from the Commission within P-FW Protection Subdistricts, subject to the applicable requirements set forth in Section 10.17 of this Chapter: (provided, however, only wildlife and fishery management practices approved by the Department of Inland Fisheries and Wildlife or the U.S. Fish and Wildlife Service shall be permitted without prior approval of the Commission from May 1st to July 15th in P-FW Protection Subdistricts established for colonial nesting sea birds.)

- (1) Non-permanent docking and mooring structures in the shelter portion of deer wintering areas;
- (2) Primitive recreational uses, including fishing, hiking, hunting, wildlife study and photography, wild crop harvesting, trapping, horseback riding, tent and shelter camping, canoe portaging, cross country skiing, and snowshoeing;
- (3) Trails, provided they are constructed and maintained so as to reasonably avoid sedimentation of water bodies;
- (4) Motorized vehicular traffic on roads and trails, and snowmobiling;
- (5) Those signs listed as exempt in Section 10.17, B of this Chapter;
- (6) Wildlife and fishery management practices;
- (7) Service drops;
- (8) Level A mineral exploration activities, excluding associated access ways;
- (9) Level A road projects;
- (10) Surveying and other resource analysis;
- (11) Emergency operations conducted for the public health, safety or general welfare, such as resource protection, law enforcement, and search and rescue operations;
- (12) Forest management activities and land management roads, provided that timber harvesting and land management road construction are carried out in conformance with the following:
 - (a) Applicant shall confer with the appropriate Biologist of the Department of Inland Fisheries and Wildlife as to how the proposed activity is to occur

within the P-FW Protection Subdistrict; at the landowner's option, the applicant may also confer with a Forester of the Bureau of Forestry;

- (b) If a plan acceptable to the parties cannot be reached stating how the proposed activity should occur, the applicant shall be required to obtain a permit from the Commission;
- (c) If a plan acceptable to the parties can be reached, the applicant shall notify the Commission in writing with a copy of the field investigation report by the Biologist (and the Forester where he also has been consulted) which states how and over what time period the activity is to occur — the notification letter shall be signed by the person responsible for the proposed activity and the field investigation report shall be signed by the Biologist (and the Forester, where applicable);
- (d) Applicant may proceed with activity in conformity with the plan 10 days after notification to the Commission unless within such time period the Commission disapproves the plan;
- (e) Applicant shall notify the Commission of completion of activity so that a follow-up field investigation may be carried out by the Commission or its designee.

(13) Water crossings of minor flowing waters.

b. Uses Requiring a Permit

The following uses may be allowed within P-FW Protection Subdistricts upon issuance of a permit from the Commission pursuant to 12 M.R.S.A., Section 685-B, and subject to the applicable requirements set forth in Section 10.17 of this Chapter:

- (1) Timber harvesting and land management roads for which agreement cannot be reached pursuant to Section 10.16,C,3,a;
- (2) Water crossings of minor flowing waters which are not in conformance with the standards for such activities in Section 10.17,A; water crossings of standing waters and of major flowing waters;
- (3) Campsites;
- (4) Agricultural management activities;
- (5) Utility facilities excluding service drops;
- (6) Level B road projects;
- (7) Docking and mooring structures, except as provided for in Section 10.16,C,3,a;
- (8) Signs other than those listed as exempt in Section 10.17,B of this Chapter;
- (9) Access ways for Level A mineral exploration activities, and Level A mineral exploration activities which are not in conformance with the standards for such activities in Section 10.17, A;
- (10) Other structures, uses or services that are essential for the uses listed in Section 10.16,C,3,a and b; and
- (11) Other structures, uses or services which the Commission determines are consistent with the purposes of this Subdistrict and of the Comprehensive Land use Plan and are not detrimental to the resources or uses which they protect.

c. Special Exceptions

The following uses may be allowed within P-FW Protection Subdistricts as special exceptions upon issuance of a permit from the Commission pursuant to 12 M.R.S.A., Section 685-A,10, and subject to the applicable requirements set forth in Section 10.17 of this Chapter, provided that the applicant shows by substantial evidence that (a) there is no alternative site which is both suitable to the proposed use and reasonably available to the applicant; (b) the use can be buffered from those other uses and resources within the subdistrict with which it is incompatible; and (c) such other conditions are met that the Commission may reasonably impose in accordance with the policies of the Comprehensive Land Use Plan:

- (1) Level C road projects;
- (2) Level B mineral exploration activities;
- (3) Mineral extraction for road purposes;
- (4) Water impoundments; and
- (5) Single family detached dwelling units.

d. **Prohibited Uses**

All uses not expressly allowed, with or without a permit or by special exception, shall be prohibited in P-FW Protection Subdistricts.

D. GREAT POND PROTECTION SUBDISTRICT (P-GP)

1. Purpose

The purpose of the Great Pond Subdistrict is not to wholly preclude residential and recreational development on Great Ponds, but to regulate these areas so that development will not degrade the waters, recreation potential, fishery habitat, or scenic character, provided that types of development which are not allowed pursuant to the standards set forth for this Subdistrict shall be permitted upon approval of an application to redistrict the land involved to an appropriate Development Subdistrict in accordance with Section 10.08 of this Chapter.

2. Description

Areas within 250 feet of the normal high water mark, measured as a horizontal distance landward of such high water mark, of those standing bodies of water 10 acres or greater in size.

3. Land Use Standards

a. Uses Allowed Without a Permit

The following uses shall be allowed without a Permit from the Commission within P-GP Protection Subdistricts subject to the applicable requirements set forth in Section 10.17 of this Chapter:

- (1) Primitive recreational uses, including fishing, hiking, hunting, wildlife study and photography, wild crop harvesting, trapping, horseback riding, tent and shelter camping, canoe portaging, cross country skiing, and snowshoeing;
- (2) Motorized vehicular traffic on roads and trails, and snowmobiling;
- (3) Wildlife and fishery management practices;
- (4) Service drops;
- (5) Level A mineral exploration activities, including associated access ways;
- (6) Surveying and other resource analysis;
- (7) Signs;
- (8) Non-permanent docking or mooring structures;
- (9) Agricultural management activities;
- (10) Forest management activities;
- (11) Emergency operations conducted for the public health, safety or general welfare, such as resource protection, law enforcement, and search and rescue operations;
- (12) Level A road projects;
- (13) Land management roads, and water crossings of minor flowing waters; and
- (14) Trails, provided they are constructed and maintained so as to reasonably avoid sedimentation of water bodies.

b. Uses Requiring a Permit

The following uses may be allowed within P-GP Protection Subdistricts upon issuance of a permit from the Commission pursuant to 12 M.R.S.A., Section 685-B, and subject to the applicable requirements set forth in Section 10.17 of this Chapter:

- (1) Agricultural management activities which are not in conformance with the standards for such activity in Section 10.17,A of this Chapter;
- (2) Timber harvesting which is not in conformance with the standards for such activity in Section 10.17,A of this Chapter;

- 10.16, D, 3, a (P-GP)
- (3) Land management roads, and water crossings of minor flowing waters which are not in conformance with the standards for such activities in Section 10.17, A of this Chapter; water crossings of standing waters and of major flowing waters;
 - (4) Level B and C road projects, except for water crossings, as provided for in 10.16, D, 3, a;
 - (5) Level A mineral exploration activities, including associated access ways, which are not in conformance with the standards for such activities in Section 10.17, A;
 - (6) Level B mineral exploration activities;
 - (7) Mineral extraction for road purposes;
 - (8) Permanent docking and mooring structures;
 - (9) Filling, grading, draining, dredging or alteration of the water table or water level for other than mineral extraction;
 - (10) Campsites;
 - (11) Water impoundments;
 - (12) Utility facilities other than service drops;
 - (13) Non-commercial structures for scientific, educational and/or nature observation purposes, which are not of a size or nature which would adversely affect the resources protected by this Subdistrict;
 - (14) Single family detached dwelling units except that only remote camps will be allowed in P-GP Protection Subdistricts within M-NC Management Subdistricts;
 - (15) Other structures, uses, or services that are essential for the uses listed in Sections 10.16, D, 3, a and b;
 - (16) Other structures, uses or services which the Commission determines are consistent with the purposes of this Subdistrict and of the Comprehensive Land Use Plan and are not detrimental to the resources or uses which they protect.

c. Special Exceptions

The following uses may be allowed within P-GP Protection Subdistricts as special exceptions upon issuance of a permit from the Commission pursuant to 12 M.R.S.A., Section 685-A, 10, and subject to the applicable requirements set forth in Section 10.17 of this Chapter, provided that the applicant shows by substantial evidence that (a) the use can be buffered from those other uses and resources within this Subdistrict with which it is incompatible; and (b) such other conditions are met that the Commission may reasonably impose in accordance with the policies of the Comprehensive Land Use Plan:

- (1) Campgrounds;
- (2) Commercial sporting camps of up to 8,000 sq. ft. in floor area for all principal buildings concerned; and
- (3) Retail stores and restaurants with a gross floor area of no more than 2,000 sq. feet.

d. Prohibited Uses

All uses not expressly allowed, with or without a permit or by special exception, shall be prohibited in P-GP Protection Subdistricts.

e. Water Quality Limiting Lakes

Water Quality limiting lakes shall be those bodies of standing water 10 acres or greater in size where the Commission determines from available information that the maximum number of allowable dwelling units, as determined by minimum shoreline frontage requirements for such body of water, would give rise to a significant risk of increasing the phosphorus concentration of the water by 5 parts per billion or more.

With respect to future development near such bodies of water, the Commission may impose additional and/or more protective standards with respect to frontage and setback requirements, sewage disposal, and other aspects of such development to reasonably assure that the above stated maximum allowable change in phosphorus concentration for such bodies of water is not exceeded.

Sample determinations to identify water quality limiting lakes are shown in Appendix A of this Chapter.

F. RESOURCE PLAN PROTECTION SUBDISTRICT (P-RP)

1. Purpose

The purpose of this subdistrict is to provide for the more efficient and effective management of single or multiple Protection Subdistricts (and in some cases adjoining Management Subdistricts) than can be realized through the use of other Protection Subdistricts and their related standards. Resource Plans for such areas that are consistent with the requirements of paragraphs 2 through 8 below may be submitted to the Commission for review, and upon approval, such areas shall be designated as P-RP Protection Subdistricts. The review procedure shall consist of an evaluation of the Resource Plan for conformance with redistricting criteria and, where applicable, for conformance with the Commission's permit regulations.

2. Description

P-RP Protection Subdistricts shall be designated in areas where the Commission has approved a Resource Plan which proposes long term land management practices that:

- i) Incorporate standards, which, taken as a whole, are at least as protective of the natural environment as those standards which would otherwise be applicable; and
- ii) Establish procedures that reduce the need for repetitious permit applications to the Commission; and
- iii) Comply with the criteria established below for their review; and
- iv) Have as their primary purpose the protection of those resources in need of protection.

3. Permitted Uses

Unless the Commission otherwise provides in approving the Resource Plan, those uses that are specified in the approved Resource Plan shall be allowed without a permit.

4. Ownership

Before the Commission shall consider an application, the applicant shall submit proof that he owns or leases the area for which the Resource Plan is proposed.

5. Application Procedures and Criteria for Review

All P-RP Protection Subdistrict applications shall include at least the following information:

- a. A statement of how the proposed Resource Plan conforms with the purposes of this subdistrict and what objectives will be achieved by the proposed redistricting;
- b. A copy of an existing district map on which the area of the proposed P-RP Protection Subdistrict is clearly shown;
- c. A description of the management procedures, conservation easements, covenants, agreements or other formalized procedures that the applicant proposes to use to replace the restrictions and regulations that currently apply. The description shall specify how the Resource Plan achieves equal or better protection of resources in the area than the subdistrict(s) which would otherwise apply;
- d. A copy of all those formal procedures and agreements that will ensure the continued protection of the resources; and
- e. A statement that specifies the expiration date (if any) of the proposed Resource Plan, and of the procedures the applicant may wish to use to extend the provisions thereof.

When the Resource Plan application involves structural development, it shall include, in addition to (a) through (e) above:

- f. Forms, plans, and exhibits as are required by the Commission;

- g. Evidence that the proposal will conform with 12 M.R.S.A., Section 685-B; and
- h. A covenant stating that no subdivision of the designated area will take place.

6. Approval or Denial of Resource Plan

The Commission, after staff review and recommendation, shall approve or deny the re-districting application. If the Resource Plan proposal contemplates structural development, except as provided in Section 10.16,F,3, the Commission may simultaneously with its approval of the P-RP Protection Subdistrict, grant, grant with conditions, or deny, applications for such permits as are required for structural development.

Upon approval of the Resource Plan, a P-RP Protection Subdistrict shall be designated on the official District Map and recorded in accordance with the provisions of Section 10.03 of this Chapter.

7. Validity

The provisions of an approved and recorded Resource Plan shall apply for the duration of the approved time period and may be extended on approval of the Commission and the applicant. The Resource Plan shall become invalidated if the provisions thereof are not complied with.

8. Amendments

Proposed amendments to the Resource Plan shall be made in writing to the Commission. An amendment shall be granted provided it assumes the same level of protection of the environment that was in effect prior to the amendment. An increase in the size of a P-RP Protection Subdistrict may be allowed by amendment, upon approval of the Commission, provided that the area proposed for expansion adjoins the existing P-RP Protection Subdistrict, and the Resource Plan is amended to include such expanded area.

G. RECREATION PROTECTION SUBDISTRICT (P-RR)

1. Purpose

The purpose of this subdistrict is to provide protection from development and intensive recreational uses to those areas that currently support, or have opportunities for, unusually significant primitive recreation activities. By so doing, the natural environment that is essential to the primitive recreational experience will be conserved.

2. Description

Trails, and areas surrounding bodies of standing and flowing water and other areas which the Commission identifies as providing or supporting unusually significant opportunities for primitive recreational experiences. Bodies of standing water so classified may include, but are not limited to, those having the following characteristics: (1) no existing road access by two wheel drive vehicles during summer months within $\frac{1}{2}$ mile of the body of water, (2) existing buildings within $\frac{1}{2}$ mile of the body of water limited to no more than one non-commercial remote camp and its accessory structures, and (3) supporting cold water game fisheries. In the case of bodies of standing water, the protection district shall extend $\frac{1}{2}$ mile out from and around the body of water and in the case of trails and bodies of flowing water, the protection district shall extend 250 feet on each side of the trail or body of flowing water, measured from the center of the trail or the normal high water mark of the water, provided that such distance may be decreased where a lesser distance will satisfy the purpose of this subdistrict. The extent, as delineated above, of any P-RR Protection Subdistrict may be increased upon land-owner agreement.

The river segments within the Commission's jurisdiction identified as meriting special protection in the Governor's Executive Order on Maine Rivers Policy, issued July 6, 1982, based upon the 1982 Maine Rivers Study of the Department of Conservation, shall qualify as bodies of flowing water appropriate for protection within this subdistrict.

3. Land Use Standards

a. Uses Allowed Without a Permit

The following uses shall be allowed without a permit from the Commission within P-RR Protection Subdistricts, subject to the applicable requirements set forth in Section 10.17 of this Chapter:

- (1) Primitive recreational uses, including fishing, hiking, hunting, wildlife study and photography, wild crop harvesting, trapping, horseback riding, tent and shelter camping, canoe portaging, cross country skiing, and snowshoeing;
- (2) Motorized vehicular traffic and snowmobiling with the following exceptions:
 - (a) in the instance of trails designated as P-RR, such traffic and snowmobiling is allowed only on those portions of such trails which are located within the right of way of a roadway or utility line;
 - (b) within any P-RR Protection Subdistrict surrounding a body of standing water, such traffic is allowed only in connection with forest or agricultural management activities or in connection with access to and use of existing remote camps; but snowmobiling shall be allowed in such subdistrict;
- (3) Wildlife and fishery management practices;
- (4) Service drops;
- (5) Level A mineral exploration activities, including associated access ways, provided that such access ways located in P-RR Protection Subdistricts established to protect bodies of standing water shall be discontinued, gated, obstructed or otherwise made impassable to two wheel drive vehicles upon completion of the mineral exploration activity, further provided that, when approval for such is legally required, the Bureau of Forestry approves the discontinuance of such access ways, which approval the operator shall request;

- (6) Surveying and other resource analysis;
- (7) Those signs listed as exempt in Section 10.17, B of this Chapter;
- (8) Forest and agricultural management activities, except for timber harvesting in P-RR Protection Subdistricts established to protect a trail. Timber harvesting in a P-RR Subdistrict established to protect a body of flowing water shall be carried out in compliance with the standards for timber harvesting in P-SL1 Subdistricts as set forth in Section 10.17, A, 5 of this chapter. Skid trails, skid roads, and winter haul roads in P-RR Subdistricts established to protect a body of standing water shall be discontinued, gated, obstructed or otherwise made impassable to two wheel drive vehicles upon completion of timber harvesting, provided that, wherever such approval is legally required, the Bureau of Forestry approves discontinuation of such road, which approval the owner shall request;
- (9) Non-permanent docking and mooring structures;
- (10) Land Management roads provided:
 - (a) the Commission is notified (according to Section 10.20 of this Chapter) in advance of commencing construction on the road;
 - (b) the road, if in P-RR Protection Subdistricts around a body of standing water, shall be located no closer than 1,000 feet from the normal high water mark of the body of water so zoned. The road shall be discontinued, gated, obstructed, or otherwise made impassable to two wheel drive vehicles within three years of construction of the road, provided that, wherever such approval is legally required, the Bureau of Forestry approves discontinuation of such road, which approval the owner shall request;
 - (c) the road, if located in a P-RR Protection Subdistrict established to protect a trail, follows the shortest practicable route in traversing such Subdistricts;
 - (d) the road, if located in a P-RR Subdistrict established to protect a body of flowing water, follows the shortest practicable route in traversing such Subdistrict and is built in compliance with the road standards for P-SL1 Subdistricts as set forth in Section 10.17, A, 4 of this Chapter;
- (11) Emergency operations conducted for the public health, safety, or general welfare, such as resource protection, law enforcement, and search and rescue operations;
- (12) Water crossings of minor flowing waters in P-RR Protection Subdistricts, except as provided in Section 10.16, G, 3, b, (6) below;
- (13) Level A road projects;
- (14) Skid trails, skid roads, and winter haul roads in P-RR Protection Subdistricts established to protect a trail or body of flowing water, provided the skid trail or road follows the shortest practicable route in traversing such Subdistrict and traverses such Subdistrict the fewest number of times practicable;
- (15) Trails, provided they are constructed and maintained so as to reasonably avoid sedimentation of water bodies; and
- (16) Mineral extraction for road purposes in P-RR Subdistricts established to protect bodies of flowing water, provided that such activity:
 - (a) is not visible from the body of flowing water which the P-RR Subdistrict was established to protect;
 - (b) avoids use of the P-RR Subdistrict, except where necessary to provide gravel for local land management operations where alternative sources are unavailable or impractical; and
 - (c) does not exceed 2 acres in size.

b. Uses Requiring a Permit

The following uses may be allowed within P-RR Protection Subdistricts upon issuance of a permit from the Commission pursuant to 12 M.R.S.A., Section 685-B, and subject to the applicable requirements set forth in Section 10.17 of this Chapter:

- (1) Land management roads not in conformance with the Standards in 10.16,G,3,a above. In the case of P-RR Subdistricts around bodies of standing water, the Commission shall, among other factors, consider the following:
 - (a) whether there is any reasonable alternative route for the road;
 - (b) whether reasonable and adequate provisions will be made by the applicant to make the road impassable to two wheel drive vehicles following termination of the road's use; and
 - (c) whether the construction and use of the road will adversely affect the resources protected by the P-RR Subdistrict;
- (2) Signs other than those listed as exempt in Section 10.17,B of this Chapter;
- (3) Campsites;
- (4) Level B road projects;
- (5) Timber harvesting in P-RR Protection Subdistricts except as provided for in 10.16,G,3,a above;
- (6) Water crossings of major flowing waters; water crossings of all flowing waters surrounded by a P-RR Protection Subdistrict established to protect such waters;
- (7) Level A mineral exploration activities, including associated access ways, which are not in conformance with Section 10.16,G,3,a,(5) or Section 10.17,A;
- (8) Mineral extraction for road purposes, not in conformance with the standards in Section 10.16, G, 3, a, (16) above, in P-RR Subdistricts established to protect bodies of flowing water;
- (9) Other structures, uses or services that are essential for the exercise of uses listed in Section 10.16,G,3,a and b; and
- (10) Other structures, uses or services which the Commission determines are consistent with the purpose of this Subdistrict and of the Comprehensive Land Use Plan and are not detrimental to the uses or resources they protect.

c. Special Exceptions

The following uses may be allowed within P-RR Protection Subdistricts as special exceptions upon issuance of a permit from the Commission pursuant to 12 M.R.S.A., Section 685-A,10, and subject to the applicable requirements set forth in Section 10.17 of this Chapter, provided that the applicant shows by substantial evidence that (a) there is no alternative site which is both suitable to the proposed use and reasonably available to the applicant; (b) the use can be buffered from those other uses and resources within the subdistrict with which it is incompatible; and (c) such other conditions are met that the Commission may reasonably impose in accordance with the policies of the Comprehensive Land Use Plan:

- (1) Level C road projects;
- (2) Utility facilities other than service drops;
- (3) Level B mineral exploration activities; and
- (4) Mineral extraction for road purposes, except as provided in Sections 10.16, G, 3, a and b above.

d. Prohibited Uses

All uses not expressly allowed, with or without a permit or by special exception, shall be prohibited in P-RR Protection Subdistricts.

I. SHORELAND PROTECTION SUBDISTRICTS (P-SL)

1. Purpose

The purpose of the P-SL Protection Subdistrict is to regulate certain land use activities in certain shoreland areas in order to maintain water quality, plant, fish and wildlife habitat and in order to protect and enhance scenic and recreational opportunities.

2. Description

P-SL1: Areas within 250 feet of the normal high water mark, measured as horizontal distance landward of such high water mark, of (a) tidal waters, and (b) flowing waters downstream from the point where such waters drain 50 square miles or more.

P-SL2: Areas within 75 feet of the normal high water mark, measured as a horizontal distance landward of such high water mark, of (a) stream channels upstream from the point where such channels drain 50 square miles, (b) coastal and inland wetlands zoned as P-WL Protection Subdistricts identified pursuant to Section 10.16,K,2,b hereof, and (c) standing bodies of water less than 10 acres in size, but excluding standing bodies of water which are less than three acres in size and which are not fed or drained by a flowing water.

3. Land Use Standards

a. Uses Allowed Without a Permit

The following uses shall be allowed without a permit from the Commission within P-SL Protection Subdistricts subject to the applicable requirements set forth in Section 10.17 of this Chapter:

- (1) Primitive recreational uses, including fishing, hiking, hunting, wildlife study and photography, wild crop harvesting, trapping, horseback riding, tent and shelter camping, canoe portaging, cross country skiing, and snowshoeing;
- (2) Motorized vehicular traffic on roads and trails, and snowmobiling;
- (3) Wildlife and fishery management practices;
- (4) Service drops;
- (5) Level A mineral exploration activities, including associated access ways;
- (6) Emergency operations conducted for the public health, safety or general welfare, such as resource protection, law enforcement, and search and rescue operations;
- (7) Surveying and other resource analysis;
- (8) Signs;
- (9) Forest and agricultural management activities;
- (10) Land management roads and water crossings of minor flowing waters;
- (11) Level A road projects;
- (12) Mineral extraction, affecting an area less than 2 acres, for road purposes;
- (13) Non-permanent docking or mooring structures; and
- (14) Trails, provided they are constructed and maintained so as to reasonably avoid sedimentation of water bodies.

b. Uses Requiring a Permit

The following uses may be allowed within P-SL Protection Subdistricts upon issuance of a permit from the Commission pursuant to 12 M.R.S.A., Section 685-B, and subject to the applicable requirements set forth in Section 10.17 of this Chapter:

- (1) Forest and agricultural management activities which are not in conformance with the standards for such activities in Section 10.17,A;
- (2) Land management roads, and water crossings of minor flowing waters which are not in conformance with the standards for such activities in Section 10.17,A; water crossings of tidal waters, standing waters, and of major flowing waters;
- (3) Level A mineral exploration activities, including associated access ways, which are not in conformance with the standards for such activities in Section 10.17, A;
- (4) Level B mineral exploration activities;
- (5) Mineral extraction for road purposes affecting an area of 2 acres or more in size and such activities affecting an area of less than 2 acres which are not in conformance with the standards for such activities in Section 10.17,A of this Chapter;
- (6) Level B and C road projects, other than crossings of flowing waters, as provided for in 10.16,I,3,a;
- (7) Filling, grading, draining, dredging, or alteration of water table or water level for other than mineral extraction;
- (8) Non-commercial structures for scientific, educational or nature observation purposes, which are not of a size or nature which would adversely affect the resources protected by this Subdistrict;
- (9) Campgrounds and campsites;
- (10) Permanent docking and mooring structures;
- (11) Water impoundments;
- (12) Single family detached dwelling units, provided, however, only remote camps will be allowed with a permit where the P-SL Protection Subdistrict is contiguous with an M-NC Management Subdistrict;
- (13) Utility facilities, excluding service drops;
- (14) Other structures, uses or services that are essential for the exercise of uses listed in Section 10.16,I,3,a and b; and
- (15) Other structures, uses or services which the Commission determines are consistent with the purposes of this Subdistrict and of the Comprehensive Land Use Plan and are not detrimental to the resources or uses which they protect.

c. Special Exceptions

The following uses may be allowed within P-SL Protection Subdistricts as special exceptions upon issuance of a permit from the Commission pursuant to 12 M.R.S.A., Section 685-A,10, and subject to the applicable requirements set forth in Section 10.17 of this Chapter, provided that the applicant shows by substantial evidence that (a) the use can be buffered from those other uses and resources within the Subdistrict with which it is incompatible, and (b) such other conditions are met that the Commission may reasonably impose in accordance with the policies of the Comprehensive Land Use Plan:

- (1) Commercial sporting camps involving a total gross floor area of no more than 8,000 square feet for all principal buildings concerned; and
- (2) Industrial and commercial structures of less than 8,000 square feet which rely on the water resource for their existence.

d. Prohibited Uses

All uses not expressly allowed, with or without a permit or by special exception, shall be prohibited in P-SL Protection Subdistricts.

J. UNUSUAL AREA PROTECTION SUBDISTRICT (P-UA)

1. Purpose

To protect areas of significant natural, recreational, historic, scenic, scientific or aesthetic value which are susceptible to significant degradation by man's activities, and for which protection cannot adequately be accomplished by inclusion in any of the other Subdistricts.

2. Description

Areas identified by the Commission as important in preserving the historic, scenic, scientific, recreational, aesthetic or water resources of the region or State and which have special land management requirements which cannot adequately be accomplished within another Subdistrict, provided that the area is essential to the values sought to be preserved and is no larger than reasonable to protect such values. P-UA Protection Subdistricts shall include, but are not limited to, historic or archeological sites or structures, scientific phenomena, natural areas, or important water supply sources. Federal and State Parks and lands, except for public reserved lots, that are not included in P-RP Protection Subdistricts may be placed in this Subdistrict.

3. Land Use Standards**a. Uses Allowed Without a Permit**

The following uses shall be allowed without a permit from the Commission within Unusual Area Protection Subdistricts subject to the applicable requirements set forth in Section 10.17 of this Chapter:

- (1) Primitive recreational uses, including fishing, hiking, hunting, wildlife study and photography, wild crop harvesting, trapping, horseback riding, tent and shelter camping, canoe portaging, cross country skiing, and snowshoeing;
- (2) Motorized vehicular traffic on roads and trails, and snowmobiling;
- (3) Wildlife and fishery management practices;
- (4) Level A mineral exploration activities, excluding associated access ways;
- (5) Surveying and other resource analysis;
- (6) Service drops;
- (7) Level A road projects;
- (8) Campsites owned or operated by Federal or State agencies;
- (9) Non-permanent docking and mooring structures;
- (10) Those signs listed as exempt in Section 10.17, B of this Chapter;
- (11) Forest management activities, except timber harvesting;
- (12) Agricultural management activities on Federal or State owned land;
- (13) Emergency operations conducted for the public health, safety or general welfare, such as resource protection, law enforcement, and search and rescue operations; and
- (14) Trails, provided they are constructed and maintained so as to reasonable avoid sedimentation of water bodies.

b. Uses Requiring a Permit

The following uses may be allowed within P-UA Protection Subdistricts upon issuance of a permit from the Commission subject to the applicable requirements set forth in Section 10.17 of this Chapter:

- (1) Timber harvesting;
- (2) Campsites except as provided for in Section 10.16,J,3,a,(8);
- (3) Campgrounds owned or operated by Federal or State agencies;
- (4) Agricultural management activities, except as provided for in 10.16,J,3,a,(12);
- (5) Land management roads and water crossings;
- (6) Permanent docking and mooring structures;
- (7) Level B road projects;
- (8) Access ways for Level A mineral exploration activities, and Level A mineral exploration activities which are not in conformance with the standards for such activities in Section 10.17, A;
- (9) Other structures, uses or services that are essential for the uses listed in Section 10.16,J,3,a and b; and
- (10) Other structures, uses or services which the Commission determines are consistent with the purposes of this Subdistrict and of the Comprehensive Land Use Plan and are not detrimental to the resources or uses which they protect.

The following uses are allowed upon issuance of a permit from the Commission according to 12 M.R.S.A., Section 685-B and subject to the applicable requirements set forth in Section 10.17 of this Chapter, provided that the applicant can show by substantial evidence that the use is compatible with and will not detract from the values of the resources protected by the P-UA Protection Subdistricts:

- (11) Single family detached dwelling units;
- (12) Campgrounds except as provided for in Section 10.16,J,3,b(3);
- (13) Level C road projects;
- (14) Non-exempt signs;
- (15) Water impoundments; and
- (16) Retail stores and restaurants with a gross floor area of no more than 1,000 square feet.

c. Special Exceptions

The following uses may be allowed within P-UA Protection Subdistricts as special exceptions upon issuance of a permit from the Commission pursuant to 12 M.R.S.A., Section 685-A,10, and subject to the applicable requirements set forth in Section 10.17 of this Chapter, provided that the applicant shows by substantial evidence that (a) there is no alternative site which is both suitable to the proposed use and reasonably available to the applicant; (b) the use can be buffered from those other uses and resources within the Subdistrict with which it is incompatible; and (c) such other conditions are met that the Commission may reasonably impose in accordance with the policies of the Comprehensive Land Use Plan:

- (1) Level B mineral exploration activities;
- (2) Mineral extraction for road purposes; and
- (3) Utility facilities excluding service drops.

d. Prohibited Uses

All uses not expressly allowed, with or without a permit or by special exception shall be prohibited in a P-UA Protection Subdistrict.

K. WETLAND PROTECTION SUBDISTRICT (P-WL)

1. Purpose

The purpose of the P-WL Protection Subdistrict is to conserve wetlands in essentially their natural state because of the indispensable biologic, hydrologic and environmental functions which they perform.

Preserving wetlands will promote the public health and the safety of persons and property against the hazards of flooding and drought by retaining water during dry periods and holding back water during floods. Wetlands also maintain water quality for drinking, store upland run-off in plant tissue and serve as a settling basin for silt from upland erosion; furthermore they stabilize water supply by maintaining the groundwater table and groundwater recharge and discharge areas, and provide plant, fish and wildlife habitat.

2. Description

- a. Areas enclosed by the normal high water mark of flowing waters, stream channels, standing waters, together with areas below the high water mark of tidal waters and extending seaward to the limits of the State's jurisdiction; and
- b. Areas encompassing 10 acres or more in size identified by the Commission as coastal or inland wetlands. The Commission may be guided in such identification by the Wetlands Inventory compiled by the Department of Inland Fisheries and Wildlife.
 - (1) Coastal wetlands shall include areas with vegetation present that is tolerant of salt water and occurs primarily in a salt water habitat and any swamp, marsh, bog, beach, flat or other contiguous lowland which is subject to tidal action or normal storm flowage at any time excepting periods of maximum storm activity.
 - (2) Inland wetlands shall include area identified on the basis of soils or vegetation as inland wetlands including, but not limited to, swamps, marshes, or bogs.
 - (a) Wetland soils include, but are not limited to, Atherton, Biddeford, Burnham, Fresh Water Marsh, Halsey, Muck, Peat and Muck, Saco, Scarboro, Washburn, Whately and Whitman.
 - (b) Wetland vegetation includes, but is not limited to, carex, rushes, redtop, reed grasses, mannagrasses, prairie cordgrass, mints, plume grass, rice cutgrass, sedges, giant burweed, cattails, arrowheads, pickerel weed, smartweeds, spikerushes, wild rice, pondweeds, duckweeds, coontail, spatterdock, wild celery, water milfoil, water lillies, alder, dogwood, willow, buttonbush, sweet gale, labrador tea, leather-leaf, cranberries, cottongrass, sphagnum moss, stunted black spruce and stunted tamarack; provided that such vegetation is growing in generally waterlogged or watercovered areas.
- c. Such areas described in 10.16,K,2,a and b above may contain small inclusions that do not conform to the description of wetlands in 10.16,K,2,a and b.

3. Land Use Standards

a. Uses Allowed Without a Permit

The following uses shall be allowed without a permit from the Commission within P-WL Protection Subdistricts, subject to the applicable requirements set forth in Section 10.17 of this Chapter:

- (1) Primitive recreational uses, including fishing, hiking, hunting, wildlife study and photography, wild crop harvesting, trapping, horseback riding, tent and shelter camping, canoe portaging, cross country skiing, and snowshoeing;

- (2) Motorized vehicular traffic on roads and trails, and snowmobiling;
- (3) Wildlife and fishery management practices;
- (4) Mineral exploration to discover or verify the existence of mineral deposits, including the removal of specimens or trace quantities, provided such exploration is accomplished by methods of hand sampling, including panning, hand test boring and digging and other non-mechanized methods which create minimal disturbance and take reasonable measures to restore the disturbed area to its original condition;
- (5) Level A road projects;
- (6) Surveying and other resource analysis;
- (7) Signs;
- (8) Non-permanent docking or mooring structures;
- (9) Forest management activities;
- (10) Water crossings of minor flowing waters;
- (11) Boating;
- (12) Use of sea or ski planes;
- (13) Emergency operations conducted for the public health, safety or general welfare, such as resource protection, law enforcement, and search and rescue operations;
- (14) Fish weirs and traps; and
- (15) Trails, provided they are constructed and maintained so as to reasonably avoid sedimentation of water bodies.

b. Uses Requiring a Permit

The following uses may be allowed upon issuance of a permit from the Commission according to 12 M.R.S.A., Section 685-B and subject to the applicable requirements set forth in Section 10.17 of this Chapter:

- (1) Agricultural management activities;
- (2) Land management roads, and water crossings of minor flowing waters which are not in conformance with the standards for such uses in Section 10.17,A, and water crossings of tidal waters, standing waters, and of major flowing waters;
- (3) Level B road projects, other than crossings of flowing waters, as provided for in 10.16,K,3,a;
- (4) Permanent docking and mooring structures;
- (5) Water impoundments;
- (6) Other structures, uses or services that are essential to the uses listed in Section 10.16,K,3,a and b; and
- (7) Other structures, uses or services which the Commission determines are consistent with the purposes of this Subdistrict and of the Comprehensive Land Use Plan and are not detrimental to the resources or uses which they protect.

c. Special Exceptions

The following uses may be allowed as special exceptions upon issuance of a permit from the Commission pursuant to 12 M.R.S.A., Section 685-A,10, and subject to the applicable requirements of Section 10.17 of this Chapter provided that the applicant shows by substantial evidence that (a) there is no alternative site which is both suitable to the proposed use and reasonably available to the applicant; (b) the use can be buffered from those other uses or resources within the subdistrict with which it is incompatible; and (c) such other conditions are met that the Commission may reasonably impose in accordance with the policies of the Comprehensive Land Use Plan:

- (1) Level C road projects;
- (2) Utility facilities, including service drops; and
- (3) Filling, grading, draining, dredging, and alteration of the water table or water level for other than mineral extraction.

- (4) Level A mineral exploration activities, except as provided for in Section 10.16, K,3,a., and Level B mineral exploration activities;

d. **Uses Prohibited**

All uses not expressly allowed, with or without a permit or by special exception, shall be prohibited in P-WL Subdistricts.

5. TIMBER HARVESTING

The following requirements apply to timber harvesting within all Development and Protection Subdistricts except as otherwise hereinafter provided:

- a. Except when surface waters are frozen, skid trails and skid roads shall not utilize stream channels bordered by a P-SL1 Protection Subdistrict except to cross such channels with a culvert or bridge according to the water crossing requirements of Section 10.17,A,4,b and d;
- b. Timber harvesting operations in P-SL1 and P-GP Protection Subdistricts shall be conducted in the following manner:
 - (1) Within 50 feet of the normal high water mark, no clearcutting shall be allowed and harvesting operations shall be conducted in such a manner that a well-distributed stand of trees is retained so as to maintain the aesthetic and recreational value and water quality of the area and to reasonably avoid sedimentation of surface waters.
 - (2) At distances greater than 50 feet from the normal high water mark, harvesting activities may not create single openings greater than 14,000 square feet in the forest canopy. In such areas single canopy openings of over 10,000 square feet shall be no closer than 100 feet apart.
 - (3) Harvesting shall not remove, in any ten year period, more than 40 percent of the volume on each acre involved of trees 6 inches in diameter and larger measured at 4½ feet above ground level. Removal of trees less than 6 inches in diameter, measured as above is permitted if otherwise in conformance with these regulations. For the purpose of these standards, volume may be determined as being equivalent to basal area.
 - (4) No accumulation of slash shall be left within 50 ft. of the normal high water mark of surface water protected by the P-SL1 and P-GP Protection Subdistricts. In such Subdistricts, at distances greater than 50 ft. from the normal high water mark of such waters, all slash larger than 3 inches in diameter shall be disposed of in such a manner that no part thereof extends more than 4 ft. above the ground.
- c. Except as provided in subsection g of this section, skid trails and other sites, where the operation of machinery used in timber harvesting results in the exposure of mineral soil, shall be located such that an unscarified filter strip of at least the width indicated below is retained between the exposed mineral soil and the normal high water mark of surface water areas:

Average Slope of Land Between Exposed Mineral Soil and Normal High Water Mark (Percent)

Width of Strip Between Exposed Mineral Soil and Normal High Water Mark (Feet Along Surface of the Ground)

0	25
10	45
20	65
30	85
40	105
50	125
60	145
70	165

The provisions of this subsection c apply only on a face sloping toward the water, provided, however, no portion of such exposed mineral soil on a back face shall be closer than 25 feet; the provisions of this subsection c do not apply where skid roads cross such waters;

- d. Timber harvesting operations shall be conducted in such a manner that slash is not left below the normal high water mark of standing or tidal waters, or below the normal high water mark of stream channels downstream from the point where such channels drain 300 acres or more;
- e. Except when surface waters are frozen, skid trails and skid roads shall not utilize stream channels bordered by P-SL2 Protection Subdistricts except to cross the same by the shortest possible route; unless culverts or bridges are installed in accordance with Section 10.17,A,4,b and d, such crossings shall only use channel beds which are composed of gravel, rock or similar hard surface which would not be eroded or otherwise damaged. The requirements of this subsection e may be modified according to the provisions of subsection g of this section;
- f. Except as provided in subsection g of this section, skid trail and skid road approaches to stream channels shall be located and designed so as to divert water runoff from the trail or road in order to prevent such runoff from directly entering the stream;
- g. Timber harvesting operations in P-SL2 Protection Subdistricts along stream channels upstream from the point where they drain 300 acres or less, and in P-WL Protection Subdistricts adjacent to such P-SL2 Protection Subdistricts, may be conducted in a manner not in conformity with the requirements of the foregoing subsections c, e, and f provided that such operations are conducted so as to avoid the occurrence of sedimentation of water in excess of 25 Jackson Turbidity Units as measurable at the point where such stream channel drains 1 square mile or more. Jackson Turbidity Units are a standard measurement of the relative amount of light that will pass through a sample of water compared with the amount of light that will pass through a reference suspension; the Jackson Turbidity Unit measurement for water without turbidity is 0;
- h. Harvesting operations in P-SL2 Protection Subdistricts along stream channels downstream from the point where they drain 300 acres or more and along standing bodies of water shall be conducted in such a manner that sufficient vegetation is retained to maintain shading of the surface waters;
- i. Written notice of all timber harvesting operations shall be given to the Commission prior to the commencement of such activity. Such notice shall conform to the requirements of Section 10.20 of this Chapter and shall state whether or not such operations will be conducted according to the provisions of subsection g of this section; and
- j. In addition to the foregoing minimum requirements, except as provided for in subsection g, provision shall otherwise be made in conducting timber harvesting operations in order to reasonably avoid sedimentation of surface waters.

STATE OF MAINE

IN THE YEAR OF OUR LORD NINETEEN HUNDRED
SEVENTY-NINE

H. P. 797 — L. D. 967

AN ACT Concerning the Saco River Corridor Commission.

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

Sec. 1. 38 MRSA c. 6 is enacted to read:

CHAPTER 6

SACO RIVER CORRIDOR

§ 951. Purpose

The Legislature finds that the Saco, Ossipee and Little Ossipee Rivers are largely unspoiled by intensive or poorly planned commercial, industrial or residential development; that existing water quality on the inland portions of these rivers is extremely high; that these rivers and their associated wetlands constitute an important present and future source of drinking water; that they support large and diverse aquatic populations; and that they are heavily used for fishing, swimming, canoeing, camping and other forms of outdoor recreation.

The Legislature finds that the wetlands associated with these rivers constitute important water storage areas; that they moderate the flow of these rivers in time of flood and drought; that they replenish the groundwater; and that they provide nutrients and essential habitat for numerous species of fish, migratory birds and other forms of wildlife.

The Legislature finds that the periodic flooding of these rivers contributes to the fertility of the adjacent lands; that the unrestricted flow of water within the floodway in the upper portions of these rivers is an essential factor in limiting the severity of flooding in the lower portions of these rivers; and that because the floodplains are largely undeveloped, the flooding which now occurs results in relatively little loss of life, personal injury and damage to property.

The Legislature finds that these rivers and their adjacent lands possess outstanding scenic and aesthetic qualities and that certain areas along these rivers are of outstanding scenic, historic, archaeological, scientific and educational importance.

The Legislature finds that the towns along these rivers are experiencing rapid population growth and that the rivers themselves are subject to increasing development pressures which threaten to destroy the quality of these rivers and the character of the adjacent lands.

In view of the dangers of intensive and poorly planned development, it is the purpose of this chapter to preserve existing water quality, prevent the diminution of water supplies, to control erosion, to protect fish and wildlife populations, to prevent undue extremes of flood and drought, to limit the loss of life and damage to property from periodic floods; to preserve the scenic, rural and unspoiled character of the lands adjacent to these rivers; to prevent obstructions to navigation; to prevent overcrowding; to avoid the mixture of incompatible uses; to protect those areas of exceptional scenic, historic, archaeological, scientific and educational importance; and to protect the public health, safety and general welfare by establishing the Saco River Corridor and by regulating the use of land and water within this area.

§ 952. Definitions

As used in this chapter, unless the context otherwise indicates, the following terms shall have the following meanings.

1. Accepted road. "Accepted road" means a state, county or town road which is under the control of state, county or municipal authorities and maintained at public expense.
2. Accessory use or structure. "Accessory use or structure" means a use or structure of a nature customarily incidental and subordinate to a principal use or structure.
3. Automobile graveyard. "Automobile graveyard" means a yard, field or parcel of land used as a place of storage for 3 or more unserviceable, discarded, worn out or junked motor vehicles.
4. Billboard. "Billboard" means a sign, structure or surface, or combination thereof, used for advertising purposes exceeding 15 square feet in area.
5. Bog. "Bog" means a periodically or continually wet, spongy area exceeding 1,000 square feet in area with soil composed mainly of decayed vegetable matter.
6. Building. "Building" means any structure, regardless of the materials of which it is constructed, which has a roof or partial roof supported by columns or walls, used or intended to be used for the habitation, enclosure or shelter of persons or animals or to provide uses which include, but are not limited to, working, office, display, sales, storage or parking space.
7. Development. "Development" means the carrying out of any significant earthmoving, grading, dredging, filling, building, construction or mining operation; the deposit of refuse or solid or liquid wastes on a parcel of land other than agricultural utilization of animal wastes; the making of any material change in noise levels, thermal conditions or emissions of waste material; the commencement or change in the location of advertising; or the alteration of a shore, bank or floodplain of an estuary, river or pond.
8. District. "District" means a specified area of land or water within the corridor, delineated on the district boundary map, within which certain regulations and requirements apply under this chapter.
9. 100-year floodplain. "100-year floodplain" means any land adjacent to the Saco River, Ossipee River or the Little Ossipee River which is of lower elevation

than the profiles of the 100-year flood established for that location by the United States Army Corps of Engineers, or by other state or federal agency, or which was actually covered by flood waters in the flood of March, 1936. Where the location of the boundary of the 100-year floodplain is at issue under this chapter, the district boundary map adopted by the commission shall be prima facie evidence of the location of the boundary.

10. Home occupation or enterprise. "Home occupation or enterprise" means an occupation, enterprise or profession which is carried on in a dwelling unit or accessory structure by a person residing in the dwelling unit, incidental and secondary to the use of the dwelling unit for residential purposes, which conforms to the following performance standards:

A. Not more than 2 full-time employees or the equivalent thereof not living on the premises shall be employed in the home occupation or enterprise;

B. All exterior signs and displays shall comply with the performance standards enacted by or established pursuant to this chapter; and

C. There shall be no nuisance, offensive noise, vibration, smoke, dust, odors, heat, glare or radiation generated which is incompatible with the character of the area in which the home occupation or enterprise is located.

11. Junkyard. "Junkyard" means a yard, field or other parcel of land used as a place for storage for:

A. Discarded, worn-out or junked plumbing and heating supplies or household appliances and furniture;

B. Discarded scrap and junked lumber;

C. Old or scrap copper, brass, rope, rags, batteries, paper, trash, rubbish, debris, waste and all scrap iron, steel and other scrap ferrous or nonferrous material; and

D. Garbage dumps, waste dumps and sanitary fill.

12. Marsh. "Marsh" means a periodically wet or continually flooded land area exceeding 1,000 square feet with the surface not deeply submerged, covered dominantly with sedges, cattails, rushes or other hydrophytic plants.

13. Mean high waterline. "Mean high waterline" means the average high tide level.

14. Normal high water line. "Normal high water line" means the line on the shore or bank of the fresh-water portion of a river at the point or elevation where the natural vegetation changes from predominantly aquatic to predominantly terrestrial. Where the location of the normal high water line is at issue under this chapter, the district boundary map adopted by the commission shall be prima facie evidence of its location.

15. Public right of way. "Public right of way" is an improved roadway maintained for passage by motor vehicles in which the owner of fee does not control the right of passage.

16. Structure. "Structure" means any object of a significant nature constructed or erected with a fixed location on or in the ground, or attached to something having a fixed location or in the ground, which may include, but is not limited to, buildings, mobile homes, walls, fences, billboards, signs, piers and floats.

17. Swamp. "Swamp" means a periodically or continually wet area exceeding 1,000 square feet in area which supports tree growth.

18. Wetlands. "Wetlands" means marshes, bogs, swamps and other areas exceeding 1,000 square feet, periodically covered by water which exhibit predominantly aquatic vegetation.

§ 953. Saco River Corridor established

There is hereby created the Saco River Corridor, herein referred to as the "corridor," which shall include the Saco River from the landward side of the rock jetty in Saco Bay to the New Hampshire border; the Ossipee River from its confluence with the Saco River to the New Hampshire border; and the Little Ossipee River from its confluence with the Saco River to the New Hampshire border at Balch Pond.

The corridor shall also include the lands adjacent to these rivers to a distance of 500 feet as measured on a horizontal plane from the normal or mean high water line of these rivers or to the edge of the 100-year floodplain if that extends beyond 500 feet, up to a maximum of 1,000 feet.

§ 954. Creation of the Saco River Corridor Commission

To carry out the purpose stated in section 951, there is hereby created the Saco River Corridor Commission, hereafter in this chapter called the "commission." The commission is charged with implementing this chapter within the Saco River Corridor and shall have and exercise all the powers and authorities necessary to carry out the purposes of this chapter and the powers and authorities granted herein. The commission shall consist of one member and one alternate from each municipality whose jurisdiction includes lands or bodies of water encompassed by the Saco River Corridor. Members and alternates shall not be personally liable for the official acts of the commission.

Appointments to the commission shall be made by the municipal officers of each municipality who may consult with the planning board of that municipality. The initial members and alternates shall be appointed within 30 days of the effective date of this chapter. Members of the commission and alternates shall serve staggered 3-year terms. The term of office of the initial members and alternates shall be determined by lot with 1/3 of the initial members and alternates selected, respectively for one, 2 and 3-year terms. The member and alternate from the same municipality shall serve the same term.

Appointed and elected officials of the municipalities with lands within the corridor shall be eligible to serve as members of the commission, and such service shall not be considered a conflict of interest. The members shall be sworn to the faithful performance of their duties as such by a dedimus justice and 7 members or alternates qualified to vote shall constitute a quorum for the transaction of business.

§ 954-A. Officers and meetings

The commission shall elect annually, from its own membership, a chairman and secretary and such other officers as it deems necessary. Meetings shall be held at the call of the chairman or at the call of more than $\frac{1}{4}$ of the membership. The meetings shall be held no less frequently than 8 times a year. The minutes of all proceedings of the commission shall be a public record available and on file in the office of the commission. Members of the commission shall not be paid a salary, but may be reimbursed for expenses incurred in carrying out their responsibilities.

Alternate members shall be allowed to participate in all proceedings of the commission, but shall vote only in the absence of the regular member from the municipality which they represent. Public hearings conducted under the authority of this chapter may be held by a single member, alternate or hearing officer designated by the commission.

§ 954-B. Commission budget; financing and executive director

The commission shall prepare a biennial budget and shall submit to the Legislature requests for appropriations sufficient to carry out its assigned tasks. The commission may accept contributions of any type from any source to assist it in carrying out its assigned tasks, and make such agreements in respect to the administration of such funds, not inconsistent with this chapter, as are required as conditions precedent to receiving such funds, federal or otherwise. The commission may contract with municipal, state and federal governments or their agencies to assist in the carrying out of any of its assigned tasks. The commission is authorized to employ an executive director who shall be the principal administrative, operational and executive employee of the commission. The executive director shall attend all meetings of the commission and be permitted to participate fully, but shall not be a voting member of the commission. The executive director, with the approval of the commission, may hire whatever competent professional personnel and other staff as may be necessary and he may obtain office space, goods and services as required.

§ 954-C. Rule-making powers

I. The commission shall have the power, after notice and public hearing, to adopt such rules and regulations governing its procedures as it deems necessary to carry out the purposes of this chapter. The rules and regulations may cover but shall not be limited to:

- A. The form and content of applications;
- B. The conduct of meetings and hearings;
- C. The determination of parties to hearings;
- D. The provision, form and content of both public notice and notice to individuals, groups and property owners affected by proposed action of the commission;
- E. The issuance and revocation of permits and certificates of compliance;
- F. The issuance of decisions and findings of facts;

- G. The adoption, amendment and interpretation of district boundaries;
- H. The amendment and revision of the comprehensive plan;
- I. The adoption and amendment of a schedule of fees;
- J. The adoption and amendment of additional performance standards for permitted uses under section 962-A; and
- K. The grant or denial of variances.

2. In adopting rules and regulations under this section, the commission shall consider, in addition to the other requirements set forth in this chapter, the following factors:

- A. Expense and facility of administration;
- B. Convenience to landowners and individuals affected;
- C. Encouragement of public participation; and
- D. Cooperation with municipal and state officials.

§ 954-D. Additional powers and duties

1. —additional. In order to implement this chapter, the commission may, in addition to the powers and duties otherwise authorized by this chapter:

- A. Adopt an official seal;
- B. Compel attendance of witnesses and require production of evidence;
- C. Designate or request municipal, state or federal agencies to receive applications, provide assistance, make investigations and submit recommendations;
- D. Conduct joint hearings with municipal officers or other appropriate state or local agencies where joint approval may be required; and
- E. Sue and be sued in its own name, plead and be impleaded.

§ 955. Acquisition of property interests

The commission may acquire conservation easements or other interest in real estate in the name of the State by gift, purchase, grant, bequest, devise or lease for any of its purposes and may convey administration thereof to any appropriate agency.

A conservation easement under this section may be a development right, covenant or other contractual right, including a conveyance with conditions or with limitations or reversions, as may be desirable to conserve and properly utilize open spaces and other land and water areas in the corridor.

§ 956. The comprehensive plan

The comprehensive plan submitted to the 106th Legislature by the Saco River Environmental Advisory Committee shall be used as a guide by the planning boards of the municipalities within the corridor in making recommendations for district boundaries and by the commission in establishing final boundaries. The comprehensive plan shall not be regarded as a final and complete design for the future of the land and water areas within the corridor, but as the basis of a continuing planning process to be carried out by the commission in conjunction with local officials, regional planning districts, councils of government and the State Planning Office.

The commission shall not amend or revise the comprehensive plan, unless:

- A. The proposed amendment or revision has been submitted to the Southern Maine Regional Planning Commission, the Greater Portland Council of Governments and other appropriate agencies, which shall forward their comments and recommendations, if any, to the commission within 30 days;
- B. The proposed amendment or revision has been submitted to the State Planning Office, pursuant to Title 5, section 3305, subsection 1, paragraph G, which shall forward its comments and recommendations, if any, to the commission within 30 days; and
- C. The commission has considered all the comments.

The commission shall have the authority, after notice and public hearing, to revise, expand or amend the comprehensive plan on the basis of new information, improved professional techniques or changing conditions in the corridor.

§ 957. Use districts and classifications

1. Classification. The land and water area within the Saco River Corridor shall be classified by the commission according to the following land and water use districts:

- A. Resource protection;
- B. Limited residential; and
- C. General development.

2. Use. Within each of these districts, the possible uses of land and water shall be divided into the following 3 categories:

- A. Uses for which no permit from the commission is required;
- B. Uses allowed by permit; and
- C. Prohibited uses.

§ 957-A. Resource Protection District

1. Areas to be included. The Resource Protection District shall include the following areas:

- A. Wetlands, swamps, marshes and bogs;

B. Areas where the entire width of the corridor on one or both sides of the river is within the 100-year floodplain;

C. Land in private ownership designated for inclusion within this district by the owner thereof and accepted by the commission because of its importance as a fish and wildlife habitat or its educational, scientific, scenic, historic or archaeological value, or its open space value;

D. Land held in federal, state and municipal ownership which is designated for inclusion within this district by the controlling state, local or federal agency or board and accepted by the commission because of its importance as a fish and wildlife habitat or its educational, scientific, scenic, historic or archaeological value, or its open space value;

E. Land subject to easements or other restrictions which limit permissible uses to those allowed within this district; and

F. Areas of importance as a fish or wildlife habitat or containing exceptional educational, scientific, scenic, historic or archaeological resources, which are nominated in writing to the commission by a municipal or state agency and approved by the commission after public hearing in the municipality within which the area is located.

(1) Areas of importance as fish and wildlife habitat shall be included within the Resource Protection District upon a finding by the commission that all of the following requirements are met:

(a) The area is of importance to a specific species of fish, migratory birds or other wildlife which inhabits the Saco River Corridor;

(b) The maintenance and preservation of the populations of such species will promote the public welfare; and

(c) More intensive development would result in the total or partial loss of the wildlife resources to be protected.

(2) Areas of exceptional scenic importance shall be included within the Resource Protection District upon a finding by the commission that all of the following requirements are met:

(a) The area is of exceptional scenic value because of distinct and clearly identifiable geological formations, vegetation or other natural features, such as bluffs, cliffs, rapids, falls, rock out-croppings or islands;

(b) The natural features are visible from the river or from an accepted road during the months of June through September;

(c) Preservation of the scenic value of the area will promote the public welfare; and

(d) More intensive development would result in the total or partial loss of the scenic value of the area.

(3) Areas of exceptional historic importance shall be included within the Resource Protection District only upon a finding by the commission that all of the following requirements are met:

- (a) The area to be included is associated with persons or events of national, state or local historic significance;
- (b) The area to be included, or the persons or events associated with the area, have been described or alluded to in historic documents, state or local histories, historic novels or other published materials;
- (c) Protection of the historic values of the area will contribute to public understanding and appreciation of the history of the Saco River Valley and its people; and
- (d) More intensive development would result in the total or partial loss of the historic value of the area.

(4) Areas of exceptional archaeological importance shall be included within the Resource Protection District upon a finding by the commission that all of the following requirements are met:

- (a) The area to be included is one of exceptional importance as a source of fossils or prehistoric Indian remains;
- (b) The protection of the area would promote the public welfare by increasing public understanding and appreciation of the past of the Saco River Valley and its inhabitants; and
- (c) More intensive development would result in the total or partial loss or inaccessibility of such fossils or Indian remains.

(5) Areas of exceptional scientific and educational importance shall be included within the Resource Protection District only upon a finding by the commission that all of the following requirements are met:

- (a) The area contains rare or unusual flora, fauna or other natural features of scientific or educational importance;
- (b) That protection of the area will promote scientific and educational purposes; and
- (c) More intensive development would result in the total or partial destruction of the educational or scientific value of the area.

2. Uses for which no permit from the commission is required. Uses within the Resource Protection District for which no permit from the commission is required shall include:

- A. Open space uses which do not involve development including erosion and flood control, parks, game management, harvesting of cranberries and wild crops, tent camping, picnic areas, fishing, hunting, and other forms of outdoor recreation compatible with the purposes of this district;
- B. Piers, docks and floats in compliance with state and federal requirements and applicable performance standards;
- C. Forestry, agriculture, horticultural and aquacultural uses not involving development; and
- D. Maintenance, reconstruction or relocation of existing public ways or bridges.

3. Uses allowed by permit. Uses within the Resource Protection District which may be allowed by permit shall include:

- A. Structures related, necessary and accessory to the uses for which no permit is required;**
- B. Dredging, filling or alteration of wetlands related, necessary and accessory to permitted uses;**
- C. Any fill or deposit of material related, necessary and accessory to permitted uses;**
- D. Sand, gravel and topsoil (loam) excavations;**
- E. Necessary expansion or enlargement of nonconforming uses; and**
- F. Reconstruction of nonconforming structures damaged or destroyed by casualty.**

4. Prohibited uses. Prohibited uses within the Resource Protection District shall include:

- A. Structures designed for human habitation;**
- B. Buildings not related, necessary and accessory to uses for which no permit is required;**
- C. Any fill or deposit of materials, or dredging or alteration of wetlands, not permitted as accessory to uses allowed within the district;**
- D. Billboards;**
- E. Commercial uses other than those undertaken and permitted pursuant to subsections 2 and 3;**
- F. Industrial or manufacturing uses;**
- G. Dumping or disposing of any liquid or solid wastes other than agricultural utilization of animal wastes; and**
- H. Uses prohibited in the Limited Residential or General Development District.**

§ 957-B. Limited Residential District

1. Areas to be included. The Limited Residential District shall include lands within the corridor which may be suitable for development, but which are not necessary for the growth of areas of intensive development. The Limited Residential District shall serve as the residuary district and shall include all areas within the corridor which are not included in the Resource Protection or General Development Districts.

2. Uses for which no permit from the commission is required. Uses for which no permit from the commission is required within the Limited Residential District shall include those uses for which no permit from the commission is required within the Resource Protection District.

3. Uses allowed by permit. Uses within the Limited Residential District which may be allowed by permit shall include:

- A. Uses allowed by permit within the Resource Protection District;
- B. Roads;
- C. Commercial establishments related, necessary and accessory to uses allowed without permit, except as prohibited by subsection 4;
- D. Home occupations or enterprises;
- E. Single family residences and accessory structures meeting all of the following performance standards:

(1) The minimum lot frontage on the river measured at the normal or mean high water line shall be 100 feet;

(2) The minimum setback of any building from the river shall be 100 feet from the normal or mean high water line;

(3) The combined river frontage and setback of any building shall be not less than 500 feet;

(4) The structures and fill shall not encroach on the 100-year floodplain;

(5) Where there is an accepted road or public right of way, as of March 19, 1974, within 500 feet of the normal or mean high water mark of the river with different land ownership on either side of the road or public right of way, the landowner on the far side of the road or public right of way from the river shall have an aggregate of setback from the river and frontage on the far side of the road or public right of way equal to 500 feet;

(6) Where there is a recorded subdivision, as of March 19, 1974, frontage, for the purposes of determining compliance with this section, shall mean lot frontage on the side of the lot nearest to and most nearly parallel to the river; and

(7) Where a landowner, as of March 19, 1974, owns a lot abutting land owned by a public utility, and such public utility land lies between the abutting landowner's lot and the river, frontage, for the purpose of determining compliance with this section, shall mean the frontage on the side of the lot abutting such public utility land which is nearest to and most nearly parallel to the river;

F. Libraries and firehouses;

G. Public utility structures;

H. Necessary expansion or enlargement of nonconforming uses; and

I. Reconstruction of nonconforming structures damaged or destroyed by casualty.

4. Prohibited uses. Prohibited uses within the Limited Residential District shall include:

- A. Hotels, motels, mobile home parks and trailer courts;
- B. Restaurants, caterias or other commercial establishments involved in the preparation or sale of food or other beverages;
- C. Commercial uses other than those undertaken and permitted pursuant to subsections 2 and 3;
- D. Any fill or deposit of materials, or dredging or alteration of wetlands, not permitted as accessory to uses allowed within this district;
- E. Manufacturing and industrial uses;
- F. Hospitals and clinics;
- G. Billboards; and
- H. All uses prohibited in the General Development District.

§ 957-C. General Development District

1. Areas to be included. The General Development District shall include those areas within the corridor which exhibit a clearly defined pattern of intensive residential, commercial or industrial development and such reserve growth areas as may be deemed necessary by the commission after considering whether or not:

- A. There is suitable area outside the corridor which could adequately accommodate the anticipated growth of the area of intensive development;
- B. The growth of the area of intensive development within the corridor is both necessary and desirable;
- C. The reserve growth area qualifies for inclusion in the Resource Protection District;
- D. The reserve growth area is suitable for the uses permitted within this district;
- E. The uses permitted in this district within the reserve growth area would result in water quality degradation; and
- F. The uses permitted in this district within the reserve growth area would unreasonably interfere with the fish or wildlife habitat or educational, scenic, scientific, historic or archaeological values of those areas eligible for inclusion within the Resource Protection District.

2. Uses for which no permit from the commission is required. Uses and accessory structures within the General Development District for which no permit from the commission is required shall include:

- A. Uses for which no permit from the commission is required within the Resource Protection District;
- B. Roads;
- C. Single family residences;

- D. Home occupations or enterprises;
- E. Multi-unit residential dwellings;
- F. Restaurants and cafeterias;
- G. Retail commercial establishments, such as stores, supermarkets and pharmacies;
- H. Municipal Buildings;
- I. Schools;
- J. Hospitals and clinics;
- K. Funeral homes;
- L. Warehouses;
- M. Churches;
- N. Libraries;
- O. Public utility structures; and
- P. Any fill or deposit of material accessory, necessary and related to permitted uses not exceeding 100 cubic yards of material.

3. Uses allowed by permit. Uses allowed within the General Development District by permit only shall include:

- A. Manufacturing and industrial uses;
- B. Sand, gravel and topsoil (loam) excavations;
- C. Dredging, filling or other alteration of wetlands;
- D. Any fill or deposit of material in excess of 100 cubic yards;
- E. Oil or petroleum storage facilities;
- F. Processing plants; and
- G. Airports.

4. Prohibited uses. Prohibited uses within the General Development District shall include:

A. Dumping or disposing of any liquid or solid wastes other than agricultural uses of animal wastes and sanitary wastes in accordance with all federal, state and municipal requirements;

B. Auto graveyards;

C. Junkyards;

D. Extractive uses of mining other than sand, gravel and topsoil (loam) excavations allowed by permit;

E. Oil refineries; and

F. Smelting operations.

§ 957-D. Omitted uses

1. Omitted uses. Uses not specifically mentioned or covered by any general category in the enumeration of permitted and prohibited uses for each district shall be deemed prohibited unless allowed by special permit upon a showing by the applicant that the soils are suitable for the proposed use and that it will not unreasonably interfere with the use and enjoyment of their property by adjacent landowners or involve any significant:

A. Degradation of air and water quality;

B. Harmful alteration of wetlands;

C. Increase in erosion or sedimentation;

D. Danger of increased flood damage;

E. Obstruction of flood flow;

F. Damage to fish and wildlife habitat;

G. Despoliation of the scenic, rural and open space character of the corridor;

H. Overcrowding;

I. Excessive noise;

J. Obstruction to navigation; or

K. Interference with the educational, scenic, scientific, historic or archaeological values of those areas designated and approved for inclusion within the Resource Protection District.

The burden of proof shall be upon the applicant to show entitlement to a permit under this section.

§ 958. Existing uses

Any existing building or structure or use of building or structure lawful March 19, 1974, or of any subsequent amendment of this chapter or of any regulation adopted hereunder, may continue although such use of structure does not conform

to this chapter or the regulations adopted hereunder. Any existing building or structure may be repaired, maintained and improved, but an existing building, structure or nonconforming use may be extended, expanded or enlarged only by permit from the commission. A nonconforming use, other than a single family residential use, which is discontinued for any reason for a period of one year shall be deemed abandoned and may not be resumed thereafter except in compliance with the requirements of this chapter.

If, as a result of flood, fire or other casualty, the value of a nonconforming building or structure is reduced by more than 75%, it may be rebuilt and the nonconforming use housed therein may be continued only by permit from the commission. If a nonconforming building or structure is decreased in value less than 75% by flood, fire or other casualty, it may be rebuilt in substantially the same location and in the same size without a permit from the commission, even though it would otherwise violate the requirements of this chapter, provided that the rebuilding shall be commenced within 12 months of the casualty.

If 2 or more contiguous lots or portions thereof are in single ownership on or after March 19, 1974, and if all or part of the lots do not meet the criteria of lot width, area, frontage or other measures required under this chapter or if a building thereon could not meet the aggregate requirements established by this chapter, the lots involved shall be considered to be one parcel for the purposes of this chapter.

To avoid undue hardship, nothing in this chapter shall be deemed to require a change in the design, construction or intended use of any building or structure with respect to which substantial construction was legally carried out prior to March 19, 1974. An intended use within the meaning of this section shall be any use for which such building or structure is designed as evidenced by the construction or by plans or specifications in existence as of March 19, 1974.

§ 959. Permits required

After March 19, 1974, no person shall engage in any use of land or water for which a permit is required under this chapter without first obtaining a permit from the commission and complying with all federal, state and municipal regulations.

§ 959-A. Requirements for granting permits

1. **Permits.** The commission shall grant permits for uses allowed under this chapter upon a showing by the applicant that the soils are suitable for the proposed use and that it will be in compliance with all applicable performance standards and requirements established under this chapter. The commission shall also find that the proposed use will not involve any unreasonable:

- A. Degradation of air and water quality;
- B. Harmful alteration of wetlands;
- C. Increase in erosion or sedimentation;
- D. Danger of increased flood damage;
- E. Obstruction of flood flow;

- F. Damage to fish and wildlife habitat;
- G. Despoliation of the scenic, rural and open space character of the corridor;
- H. Overcrowding;
- I. Excessive noise;
- J. Obstructions to navigation; or
- K. Interference with the educational, scenic, scientific, historic or archaeological values of those areas designated and approved for inclusion within the Resource Protection District.

The burden of proof shall be upon the applicant to show entitlement to a permit under this section, but if the applicant makes the requisite showing, a permit shall be issued by the commission.

§ 959-B. Permits with conditions

Permits granted under this chapter may be made subject to such reasonable conditions concerning setback, location, spacing, size of structure or development, type of construction, time of completion, landscaping, retention of trees, screening, reclamation, erosion control, noise level, quantity and quality of discharge, sewage disposal and manner and method of operation, as the commission deems necessary to avoid the dangers enumerated in section 959-A. For the purpose of enforcement, permits issued by the commission and conditions thereof shall be considered as orders of the commission.

§ 960. District boundary maps

Maps showing district boundaries within the Saco River Corridor shall be kept in the office of the commission and the maps or conformed copies of them shall be available for public inspection during normal business hours. Copies of those portions of such maps including the area of each municipality shall be furnished by the commission to the municipal officers thereof and shall be available for public inspection at the office of the town clerk or at the town office.

§ 961. Relation to municipal, state and federal regulations

Nothing in this chapter shall prevent municipal, state or federal authorities from adopting and administering more stringent requirements regarding performance standards or permitted uses within use districts established by the commission or within districts overlapping the districts established pursuant to this chapter. Where there is a conflict between a provision adopted under this chapter and any other municipal, state or federal requirement applicable to the same land or water areas within the corridor, the more restrictive provision shall take precedence. All performance standards, rules and regulations proposed for hearing by the commission shall be submitted to the Department of Environmental Protection, the State Planning Office, the Greater Portland Council of Governments and the Southern Maine Regional Planning Commission at least 7 days prior to the hearing for review and comment. The commission shall not promulgate any rule or regulation establishing air or water quality standards within the corridor in conflict with the rules and regulations of the Department of Environmental Protection without the prior approval of the Director of the Department of Environmental Protection or the Board of Environmental Protection.

§ 962. General performance standards

1. Standards. Unless otherwise specified, the following performance standards shall be applicable to all uses of land and water areas within the corridor, whether or not a permit is required from the commission.

A. No building shall be located closer to the Ossipee, Little Ossipee or Saco rivers than 100 feet from the normal or mean high water line, not shall any building in the Limited Residential or Resource Protection Districts be located less than 30 feet from any accepted road. Within the Resource Protection and Limited Residential Districts there shall be no construction or placement of residential structures within the 100-year floodplain.

B. Within the Resource Protection District or Limited Residential District no part of a septic system or other system of underground sewage disposal shall be located within the 100-year floodplain.

C. On the Ossipee and Little Ossipee Rivers and fresh-water portions of the Saco River:

(1) No privately-owned pier, dock or float shall extend more than 10% of the width of the river at any time or extend into the water more than 10 feet perpendicular to the shore, whichever is less; and

(2) All piers, docks or floats shall be temporary and capable of seasonal removal.

D. Agriculture.

(1) All agriculture practices shall be in conformance with existing state and federal laws and regulations relating to the use of insecticides, herbicides, fertilizers and cleaning agents, and with state and federal laws and regulations to the placement or disposal of wastes in waterways or on the banks thereof.

(2) Where soil is tilled, an untilled buffer strip of natural vegetation shall be retained between the tilled ground and the normal or mean high water line of the river. The width of this strip shall be a minimum of 25 feet, measured directly from the normal or mean high water line of the river.

E. Clearing of trees and conversion to other vegetation is allowed for agriculture. Clearing of trees and conversion to other vegetation is allowed for approved construction or other uses requiring access to the shore, subject to the following limitations. A cleared opening not greater than 30 feet in width for each 100 feet of shoreline may be created in the strip extending 50 feet inland from the normal or mean high water line for each residential use or other use requiring access to the shore. Where natural vegetation is removed, it shall be replaced and maintained with other vegetation.

F. The following standards shall govern timber harvesting within 250 feet of the normal or mean high water line of any water body within the corridor.

(1) Harvesting operations shall be conducted in such a manner that a well-distributed stand of trees is retained.

(2) In any stand, harvesting shall remove not more than 40% of the volume of trees 6 inches in diameter and larger, measured at 4½ feet above ground level in any 10-year period.

(3) No significant accumulation of slash shall be left within 50 feet of the normal or mean high water line of any water body within the corridor. At distances greater than 50 feet from the normal or mean high water line of such water bodies extending to the limits of the corridor, all slash shall be disposed of in such a manner that it lies on the ground and no part thereof extends more than 4 feet above the ground.

(4) Harvesting operations shall be conducted in such a manner and at such a time that minimal soil disturbance results. Adequate provision shall be made to prevent soil erosion and sedimentation of surface waters.

§ 962-A. Additional performance standards

The commission, after notice and public hearing, may establish such additional performance standards as it deems necessary to carry out the purposes of this chapter, provided that such standards are consistent with the standards established in section 962.

I. Standards. In establishing additional performance standards under this section for any permitted use, the commission shall endeavor to develop standards which will assure that the uses under consideration will be located on suitable soils and will not result in unreasonable:

- A. Degradation of air and water quality;
- B. Harmful alteration of wetlands;
- C. Increase in erosion or sedimentation;
- D. Obstruction of flood flow;
- E. Destruction of fish and wildlife habitat;
- F. Despoliation of the scenic, rural and open space character of the corridor;
- G. Overuse of the rivers for recreation;
- H. Overcrowding;
- I. Excessive noise;
- J. Obstruction to navigation; or
- K. Interference with the educational, scenic, historic or archaeological values of those areas designated and approved for inclusion within the Resource Protection District.

§ 962-B. Amendments to district boundaries and performance standards

The commission may initiate, and any municipal agency, an organization qualified under section § 966-A or any property owner or lessee may petition for a

change in the boundary of any land use district or for amendments to any additional performance standard adopted pursuant to section 962-A.

No change in a district boundary shall be approved unless substantial evidence shows that the area is better suited for uses other than those permitted in the district in which it is situated, or changes in conditions have made the present classification unreasonable.

No amendment to performance standards shall be approved unless substantial evidence shows that:

1. Conditions not in evidence. Conditions exist which were not evident when the performance standard was adopted;
2. Purpose not served. The performance standard does not serve the purpose of this chapter; or
3. Amendment preferable. The amendment would better fulfill the purpose of this chapter.

§ 963. Variance from performance standards

1. Variance. A relaxation of the performance standards enacted by this chapter or adopted pursuant thereto may be granted by the commission, after notice and public hearing, upon a finding by the commission that the following provisions are met:

A. Application of the performance standard to the land or water area in question will result in undue hardship to the applicant, provided that hardship to the applicant, provided that hardship shall not be construed to include:

- (1) Any hardship attributable to any act, course of conduct or failure to act of the applicant or his predecessor in interest beginning with the owner of record on the effective date of this chapter or of a performance standard adopted pursuant thereto from which a variance is sought; or
- (2) Any hardship that is not unique to the petitioner's land;

B. The variance, if granted, will not subvert the intent of this chapter as stated in section 951 or as manifested in the standards from which a variance is sought; and

C. The proposed use, if a variance is granted, will not unreasonably interfere with the use and enjoyment of their lands by adjacent landowners, or result in any unreasonable:

- (1) Degradation of air and water quality;
- (2) Harmful alteration of wetlands;
- (3) Increase in erosion or sedimentation;
- (4) Danger of increased flood damage;
- (5) Obstruction of flood flow;

- (6) Damage to fish and wildlife habitat;
- (7) Despoliation of the scenic, rural and open space character of the corridor;
- (8) Overcrowding;
- (9) Excessive noise;
- (10) Obstructions to navigation; or
- (11) Interference with the educational, scenic, scientific, historic or archaeological values of those areas designated and approved for inclusion within the Resource Protection District.

No variance shall be granted because of other nonconforming uses within a district or because of similar uses in an adjoining district. The burden of proof shall be on the applicant to show entitlement to a variance under this section. The owner of a building lot of record which is wholly within the corridor on March 19, 1974, shall be entitled to a variance for a single family residence which may be granted by the commission without public hearing. Any variance granted by the commission may be granted subject to such reasonable conditions concerning matters enumerated in section 959-B as the commission finds necessary to avoid the dangers enumerated in section 957-D. For the purposes of enforcement, variances granted hereunder and the conditions thereto shall be treated as orders of the commission.

§ 963-A. Special use variance

1. No variance where prohibited. No variance shall be granted in order to permit a use within a district in which such use is expressly prohibited, except in accordance with this section. A special use variance may be granted, after notice and public hearing, to permit a single family dwelling within the Resource Protection District upon a finding by the commission that the grant of such a special use variance is necessary to avoid undue hardship to the applicant, provided that hardship shall not be construed to include:

A. Any hardship attributable to any act, course of conduct or failure to act of the applicant or his predecessor in interest, beginning with the owner of record on March 19, 1974; or

B. Any hardship that is not unique to the petitioner's land.

A special use variance under this section may be granted by the commission only in cases where such a variance is necessary to avoid a deprivation of property in violation of the Constitution of Maine, Article I, Section 6, a taking of private property without compensation in violation of the Constitution of Maine, Article I, Section 21, a violation of due process clause of the 14th Amendment of the Constitution of the United States, or a violation of other applicable state or federal constitutional provisions.

The owner of a building lot of record which is wholly within the corridor on March 19, 1974, shall be entitled to a variance for a single family residence which may be granted by the commission without public hearing. Any variance granted by the commission may be granted subject to such reasonable conditions concerning

matters enumerated in section 959-B as the commission finds necessary to avoid the dangers enumerated in section 957-D. For purposes of enforcement, special use variances granted hereunder and the conditions thereto shall be treated as orders of the commission.

§ 964. Certificate of compliance

It shall be unlawful to use or occupy, or permit the use or occupancy of, any land, structure or part thereof created, erected, changed, converted or wholly or partly altered or enlarged in its use or structural form, which use or structure requires a permit under this chapter until a certificate of compliance has been issued therefor by the commission or its staff, stating that the requirements and conditions of approval have been met.

A certificate of compliance may contain such reasonable terms and conditions as the commission finds necessary to avoid the dangers enumerated in section 959-A. If a certificate of compliance is denied by the commission or its staff, the denial shall be in writing with a statement of the reasons for such denial. The commission or its staff shall act within 30 days of an application for a certificate of compliance. The grant or denial of the certificate may be based upon information obtained by commission members, staff, consultant personnel or designated municipal officials.

The commission may establish standards within which authority shall be delegated to its staff, to issue or deny certificates of compliance. Any person aggrieved by a decision of the staff shall have the right to a review of such decision by the commission within 30 days of such decision.

For the purposes of enforcement, certificates of compliance and conditions thereto shall be treated as orders of the commission.

§ 965. Fees

The commission may establish reasonable fees for permit applications, variance applications and certificates of compliance. The funds derived from the collection of such fees shall be paid into the General Fund of the State. The commission may also establish a reasonable schedule of fees for providing copies of this chapter, maps of district boundaries, the comprehensive plan, copies of rules and regulations, performance standards, official publications or other materials which may be requested by the public. The fees for any such materials shall be retained by the commission and used to defray the expense of printing, copying, mailing or otherwise providing such materials to the public.

§ 966. Parties to proceedings

The parties to any proceeding before the commission may include the applicant, if any, any landowner whose lands will be directly affected by the proposed action of the commission, any landowner whose lands are adjacent to, directly across the river from, or within 500 feet of lands to be directly affected, any municipality or agency thereof whose jurisdiction includes lands or bodies of water to be directly affected and any citizens' group or organization qualified under section 966-A.

Nothing in this section shall be construed so as to limit the right of any member of the public to appear or be heard at any public hearing of the commission, subject only to such reasonable rules and regulations as the commissioner may hereafter establish.

§ 966-A. Citizens' groups or organizations

1. **Participation.** A citizens' group or organization may participate in all hearings held by the commission, request and receive notices, bring judicial proceedings and exercise all other rights of parties to proceedings before the commission, provided that the group or organization is designated as qualified by an order of the commission under this section.

2. **Organizations qualified.** The commission shall issue an order designating a citizens' group or organization as qualified under this section if it finds that:

A. The group or organization has filed an application showing:

(1) That it has significant and definable interest in the Saco, Ossipee or Little Ossipee Rivers and their adjacent lands; and

(2) That it has at least 50 members in the municipalities whose lands comprise the Saco River Corridor or at least 15 members in a municipality which will be directly affected by a proposed action of the commission.

3. **Contents.** Every application for designation as a qualified organization under this section shall contain the name and address of a representative or office for the receipt of notices and other communications and the names and addresses of the organization's officers, directors and members.

4. **Time period.** The commission may establish a period of time after which qualifications under this section will expire unless renewed, and in such cases shall give notice of the necessity for renewal not less than one month prior to the expiration date.

§ 967. Enforcement, inspection and penalties for violations

Standards, rules, regulations and orders issued by the commission pursuant to this chapter shall have the force and effect of law. No development may be undertaken except in conformance with this chapter, the standards, rules, regulations and orders issued by the commission pursuant to this chapter and no real estate or personal property shall exist or be used in violation thereof. For the purposes of inspection and to assure compliance with this chapter and any standards, rules, regulations and orders issued by the commission pursuant to this chapter, commission members, staff, consultant personnel and designated municipal officials may conduct such investigations, examinations, tests and site evaluations deemed necessary to verify information presented to the commission, and may obtain access to any lands and structures subject to this chapter. A violation of any provision of this chapter or of standards, rules, regulations and orders shall be punishable by the revocation of any permit, certificate of compliance or variance issued by the commission and by a fine of up to but not more than \$100 for each day of the violation. A person who willfully or knowingly falsifies any statement to the commission shall be punished by the revocation of any permit, certificate of compliance or variance granted by the commission in reliance on such statement and by a fine of up to but not more than \$1,000.

The commission shall be deemed a state commission within the meaning of Title 5, section 191, provided that subject to written approval of the Attorney General and within the limits of the commission's budget, the commission may retain private counsel for the conduct of commission meetings, hearings and

advice on other legal matters. In addition to enforcing the other penalties provided, either the commission or the Attorney General may institute any appropriate action, injunction or other proceeding to prevent, restrain, correct or abate any violation of this chapter or the standards, rules, regulations and orders issued by the commission pursuant to this chapter.

§ 968. Appeals to Superior Court

Except where otherwise specified by statute, any party or person aggrieved by any order or decision of the commission, in regard to any matter upon which there was a hearing before the commission and of which a record of said hearing is available, may, within 30 days after notice of the filing of such order or decision, appeal therefrom to the Superior Court by filing a notice of appeal stating the points of appeal. Notice of the appeal shall be ordered by the court without a jury in the manner and with the rights provided by law in other civil actions so heard. The proceedings shall not be de novo. The court shall receive into evidence true copies of the transcript of the hearing, the exhibits thereto and the decision of the commission. The court's review shall be limited to questions of law and to whether the commission acted regularly and within the scope of its authority and the commission's decision shall be final so long as supported by substantial evidence. The court may affirm, reverse or remand the commission's decision for further proceedings. Appeals from all other orders or decisions of the commission, unless otherwise specified by statute; shall be taken pursuant to the Maine Rules of Civil Procedure, Rule 80B.

Sec. 2. P&SL 1973, c. 150, as amended by P&SL 1973, c. 208, and by PL 1977, c. 276, is repealed.

Sec. 3. Application. This Act shall apply only to the terms of office of persons appointed to the Saco River Corridor Commission after the effective date of this Act and shall not effect the tenure of office of persons appointed to the commission prior to the effective date of this Act.

Sec. 4. Transitional provisions. All actions of the commission taken before the effective date of this Act, and all rules and regulations currently in effect and operative on the effective date of this Act, shall be valid and shall continue in effect until rescinded, amended or changed according to law.

Legislative History

Original passage	Private & Special Laws of 1973, Chapter 150, effective 10/3/73
amended by	Private & Special Laws of 1973, Chapter 208, effective 3/19/74
amended by	Public Laws of 1977, Chapter 276, effective 10/24/77
amended by	Public Laws of 1979, Chapter 459, effective 9/14/79

SACO RIVER CORRIDOR COMMISSION

PERFORMANCE STANDARD
Adopted February 7, 1979

A multi-unit residential dwelling for the purposes of this standard is a building in single ownership and containing 2 or more separate residential units. The maximum number of units to be allowed in a multi-unit residential dwelling on a given parcel in the Limited Residential District shall be equal to the maximum number of single family residential lots within the corridor into which the parcel may be subdivided using the following criteria:

1. All proposed single family lots shall be plotted in a sketch plan in a reasonable pattern which makes provision for placement of a 24X32 foot single family residence on suitable land and in conformance with the frontage and setback requirements of the Limited Residential District and all other applicable performance standards.
2. The minimum setback of the multi-unit residential dwelling shall be the average of the setback distances of all single family residences in the submitted sketch plan.
3. No multi-unit residential dwelling allowed under this standard shall be more than 2 stories or 35 feet in height or shall contain more than 4 dwelling units.

JUN 17 '83

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BY GOVERNOR

PUBLIC LAW

STATE OF MAINE

IN THE YEAR OF OUR LORD
NINETEEN HUNDRED AND EIGHTY-THREE

S.P. 598 - L.D. 1721

AN ACT to Promote the Wise Use and
Management of Maine's Outstanding River
Resources.

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

Sec. 1. 12 MRSA c. 200 is enacted to read:

CHAPTER 200MAINE'S RIVERS§401. Maine's riversThe Legislature finds:

1. Rivers and streams a natural resource. That the State's nearly 32,000 miles of rivers and streams comprise one of its most important natural resources, historically vital to the state's commerce and industry and to the quality of life enjoyed by Maine people;

2. Increase in value of rivers and streams. That the value of its rivers and streams has increased in recent years due to the improvement in the quality of their waters, the restoration of their fisheries, the growth in demand for hydropower and the expanding interest in river recreation activities, leading at times to conflict among these uses;

3. Use of rivers and streams. That its rivers

and streams afford the state's people with major opportunities for the enjoyment of nature's beauty, unique recreational activities and solace from an industrialized society, as well as for economic expansion through the development of hydropower, the revitalization of waterfronts and ports and the attraction of both tourists and desirable new industries; and

4. Policy. That the best interests of the state's people are served by a policy which recognizes the importance that their rivers and streams have for meeting portions of several public needs, provides guidance for striking a balance among the various uses which affords the public maximum benefit and seeks harmony rather than conflict among these uses.

§402. Declaration of policy

In its role as trustee of the public waters, the Legislature declares that the well-being of the citizens of this State depends on striking a carefully considered and well-reasoned balance among the competing uses of the state's rivers and streams. Further, the Legislature declares that such a balance shall:

1. Restoration of water. Restore waters to a condition clean enough to allow fishing and swimming in all our rivers and streams;

2. Revitalization of waterfronts. Revitalize waterfronts and ports;

3. Maintenance of scenic beauty. Maintain, even in areas where development occurs, the scenic beauty and character of our rivers;

4. Interests of riparian owners. Recognize and respect the rightful interests of riparian owners;

5. Increase hydroelectric power. Increase the hydroelectric power available to replace foreign oil in the State;

6. Hydropower development. Streamline proce-

dures to facilitate hydropower development under reasoned environmental, technical and public safety constraints;

7. Fisheries. Restore anadromous fisheries and improve the productivity of inland fisheries;

8. Recreation. Expand the opportunities for outdoor recreation; and

9. Outstanding river stretches. Protect the special resource values of the flowing waters and shorelands of the State's most outstanding river stretches, as identified by the Department of Conservation's 1982 Maine Rivers Study and as specifically delineated in this chapter.

Further, the Legislature finds that with careful planning our foreseeable needs for all of these uses may be reasonably integrated harmoniously with one another on the state's 32,000 miles of rivers and streams.

§403. Special protection for outstanding rivers

The Legislature declares that certain rivers, because of their unparalleled natural and recreational values, provide irreplaceable social and economic benefits to the people in their existing state. It is the Legislature's intent that no new dams be constructed on these river and stream segments without the specific authorization of the Legislature, and that additional development or redevelopment of dams existing on these segments, as of the date of the enactment of this section, shall be designed and executed in a manner that either enhances or does not diminish the significant resource values of these river segments identified by the 1982 Maine Rivers Study. No license or permit under Title 38, sections 630 to 636 may be issued for construction of new dams on the river and stream segments subject to this special protection without the specific authorization of the Legislature, or for additional development or redevelopment of existing dams on the river and stream segments subject to this special protection where the additional development or redevelopment diminishes the significant resource values of these

river and stream segments.

Further, the Legislature finds that projects inconsistent with this policy on new dams and redevelopment of existing dams will alter the physical and chemical characteristics and designated uses of the waters of these river and stream segments. It finds that these impacts are unacceptable and constitute violations of the state's water quality standards. The Legislature directs that no project which fails to meet the requirements of this section may be certified under the United States Clean Water Act, Section 401.

For purposes of this section, outstanding river and stream segments meriting special protection shall include:

1. Allagash River. The Allagash River from Gerald Brook in Allagash up to but not including the Churchill Dam in T.10, R.12, W.E.L.S., including its tributaries the Musquacook Stream from the Allagash River to the outlet of Third Musquacook Lake in T.11, R.11, W.E.L.S.; Allagash Stream from its inlet to Chamberlain Lake to the outlet of Allagash Pond in T.9, R.15, W.E.L.S.; and Chemquasabamticook Stream from its inlet into Long Lake to the outlet of Chemquasabamticook Lake, excluding Round Pond in T.13, R.12, W.E.L.S., Harvey Pond, Long Lake, Umsaskis Lake, Musquacook Lakes (1-2), Little Round Pond in T.8, R.13, W.E.L.S., Allagash Lake and Clayton Lake;

2. Aroostook River. The Aroostook River from and including the Sheridan Dam in Ashland to Millinocket Stream, including its tributaries Millinocket Stream from the Aroostook River to the outlet of Millinocket Lake; Munsungan Stream from the Aroostook River to the outlet of Little Munsungan Lake; St. Croix Stream from the Aroostook River to Hall Brook in T.9, R.5, W.E.L.S.; and the Big Machias River from the Aroostook River to the outlet of Big Machias Lake, excluding Round Pond in T.7, R.9, W.E.L.S.;

3. Dead River. The Dead River from the Kennebec River to the upstream limit of Big Eddy;

4. Dennys River. The Dennys River from Hinckley Point in Dennysville to the outlet of Meddybemps Lake;

5. East Machias River. The East Machias River, including the Maine River, from the Route 191 bridge in East Machias to the outlet of Pocomoonshine Lake, excluding Hadley Lake, Second Lake, Round Lake, Crawford Lake, Lower Mud Lake and Upper Mud Lake;

6. Fish River. The Fish River from its inlet into St. Froid Lake in T.14, R. 7, W.E.L.S. to the outlet of Mud Pond in T.13, R. 8, W.E.L.S., excluding Portage Lake, Round Pond and Fish River Lake.

7. Kennebec River. The Kennebec River from Bay Point in Georgetown to the Father Curran Bridge in Augusta and from the confluence of the Dead River with the Kennebec River up to, but not including, the Harris Dam in Indian Stream Township;

8. Machias River. The Machias River, including Fourth and Fifth Lake Streams, from Fort O'Brien in Machias to the outlet of Fifth Machias Lake, including its tributaries the West Branch Machias River from the Machias River to the outlet of Lower Sabao Lake; Old Stream from the Machias River to the outlet of First Lake; and Mopang Stream from the Machias River to the outlet of Mopang Second Lake, excluding Machias Lakes (1-4), Lower Pond and Mopang First Lake;

9. Mattawamkeag River. The Mattawamkeag River from the Penobscot River to the Mattawamkeag and Kingman Township townline.

10. Moose River. The Moose River from its inlet into Attean Pond to its confluence with Number One Brook in Beattie Township;

11. Narraguagus River. The Narraguagus River from the Route 1 bridge in Cherryfield to the outlet of Eagle Lake, excluding Beddington Lake and Deer Lake;

12. Penobscot River. The Penobscot River,

including the Eastern Channel, from Sandy Point in Stockton Springs up to, but not including, the Veazie Dam, including its tributaries the West Branch of the Penobscot from its inlet into Ambajejus Lake to the western Boundary of T.3, R.10, and from its inlet into Chesuncook Lake up to, but not including, the dam at Seboomook Lake; the East Branch Penobscot River from the Penobscot River up to, but not including, the dam at the outlet of Grand Lake Matagamon; the Wassataquoik Stream from the East Branch of the Penobscot River to Annis Brook in T.4, R.9, W.E.L.S.; the Webster Brook from its inlet into Grand Lake Matagamon up to, but not including, Telos Dam in T.6, R.11, W.E.L.S.; the Seboeis River from the East Branch of the Penobscot River to the outlet of Snowshoe Lake; and the Sawtelle Brook from the Seboeis River up to, but not including, the dam at the outlet of Sawtelle Deadwater, excluding Passamagamet Lake, Webster Lake and White Horse Lake; Snowshoe Lake;

13. Pleasant River. The Pleasant River from Seavey Point in Addison to the outlet of Pleasant River Lake;

14. Rapid River. The Rapid River from the Magalloway Plantation and Upton townline to the outlet of Pond in the River;

15. Saco River. The Saco River from the Little Ossipee River to the New Hampshire border;

16. St. John River. The St. John River from one mile above the foot of Big Rapids in Allagash to the Baker Branch, including its tributaries the Big Black River from the St. John River to the Canadian border; the Northwest Branch from the St. John River to the outlet of Beaver Pond in T.12, R.17, W.E.L.S.; the Southwest Branch from the Baker Branch to 5 miles downstream of the Canadian border; and the Baker Branch from the St. John River to 1.5 miles below Baker Lake;

17. Sheepscot River. The Sheepscot River from the Route 1 bridge in Wiscasset to Halldale Road in Montville, excluding Long Pond and Sheepscot Pond, including its tributaries the West Branch of the

Sheepscot from its confluence with the Sheepscot River in Whitefield to the outlet of Branch Pond in China; and

18. West Branch Pleasant River. The West Branch Pleasant River from the East Branch to the outlet of Fourth West Branch Pond in Shawtown Township, excluding Silver Lake and West Branch Ponds (1-3).

§404. Maine Guarantee Authority

The Maine Guarantee Authority may not finance any energy generating system project under Title 10, chapter 110, if that project is located in whole or in part on any river listed in section 403.

§405. St. Croix River

1. Special consideration. In consideration of the special status of the St. Croix River as an international boundary governed in part by the International Joint Commission and the Province of New Brunswick, the Legislature establishes the following provisions.

2. Commercial, industrial or residential development. Except as provided in this subsection, no person may undertake any further commercial, industrial or residential development in the area within 250 feet of the St. Croix River from the Grand Falls flowage to the north end of Wingdam Island. The following activities shall be exempt from these provisions:

A. Development of hydroelectric or other dams, plants and related facilities or improvements subject to the conditions described in subsection 3;

B. A bridge at Vanceboro;

C. A haul road from Grand Falls;

D. Activities and developments related to timber harvesting, mining or extraction of sand and gravel; and

E. Any recreational management activity conducted or approved by the State.

3. New hydroelectric dams. No person may develop new hydroelectric dams on the St. Croix River from Grand Falls to the north end of Wingdam Island without first:

A. Having performed a feasibility study by a qualified consultant approved by the Governor to examine the alternative potentials for hydropower development downstream from Grand Falls and make the findings available to the State for review;

B. Having consulted with the office of the Governor or other agency of the State, designated by him, regarding the feasibility of this downstream development; and

C. Having determined that there exists no economically feasible site downstream from Grand Falls.

In the event that the State disagrees with any of the assumptions, findings or conclusions of the economic feasibility study, the comments of the State shall be considered and responded to by the consultant. These comments and the responses of the consultant shall be noted in the final report of the economic feasibility study.

4. Review. This section shall be reviewed every 5 years, and shall be repealed on January 1, 1988, unless reenacted by the Legislature for an additional 5-year period. In the event that the St. Croix River is included in any legislative Act or regulation which directly or indirectly has as its effect the essential prohibition of construction of new dams or development or redevelopment of existing dams on the St. Croix River, this section shall be repealed on the effective date of that Act or regulation.

§406. Report

The State Planning Office shall provide a report no later than December 1, 1986, to the Legislature detailing the status of policy accomplishments pur-

suant to this chapter.

Sec. 2. 12 MRSA §4811, as amended by PL 1973, c. 564, §1, is further amended by adding after the first paragraph a new paragraph to read:

It is further declared that, in accordance with section 402, certain river and stream segments, as identified in the Department of Conservation's 1982 Maine Rivers Study and as specifically delineated in section 4811-B, are significant river segments and deserve special shoreland zoning controls designed to protect their natural and recreation features.

Sec. 3. 12 MRSA §4811-A, as enacted by PL 1973, c. 564, §2, is repealed and the following enacted in its place:

§4811-A. Definitions

As used in this chapter, unless the context indicates otherwise, the following terms have the following meanings.

1. Pond. "Pond" means any inland body of water which has a surface area in excess of 10 acres, except where the body of water is man-made and in addition is completely surrounded by land held by a single owner, and except those privately owned ponds which are held primarily as waterfowl and fish breeding areas or for hunting and fishing.

2. Principal structure. "Principal structure" means a building other than one which is used for purposes wholly incidental or accessory to the use of another building on the same premises.

3. River. "River" means a free flowing body of water from that point at which it provides drainage for a watershed of 25 square miles to its mouth.

4. Screening. "Screening" means a buffer strip of vegetation retained between the permitted use and the normal high water mark of a protected river segment. Within this buffer strip, no clear cutting is permitted, except that openings not greater than 30 feet in width for every 100 feet of shoreline may

be created. Selective cutting of no more than 40% of the trees 4 inches or more in diameter measured at 4 1/2 feet above ground level is allowed in any 10-year period, provided that a well-distributed stand of trees remains.

Sec. 4. 12 MRSA §4811-B is enacted to read:

§4811-B. Significant river segments identified

For purposes of this chapter, significant river segments include the following:

1. Aroostook River. The Aroostook River from St. Croix Stream in Masardis to the Masardis and T.10, R.6, W.E.L.S. townline, excluding segments in T.9, R.5, W.E.L.S.; including its tributary the Big Machias River from the Aroostook River in Ashland to the Ashland and Garfield Plantation townlines;

2. Dennys River. The Dennys River from the railroad bridge in Dennysville Station to the dam at Meddybemps Lake, excluding the western shore in Edmunds Township and No. 14 Plantation;

3. East Machias River. The East Machias River from 1/4 of a mile above the Route 1 bridge in East Machias to the East Machias and T.18, E.D., B.P.P. townline, and from the T.19, E.D., B.P.P. and Wesley townline to the outlet of Crawford Lake in Crawford, excluding Hadley Lake;

4. Fish River. The Fish River from the bridge in Fort Kent Mills to the Fort Kent and Wallagrass Plantation townline, and from the Portage Lake and T.14, R.6, townline to the Portage Lake and T.13, R.7, W.E.L.S. townline, excluding Portage Lake;

5. Machias River. The Machias River from the Whitneyville and Machias townline to the Northfield T.19, M.D., B.P.P. townline;

6. Mattawamkeag River. The Mattawamkeag River from the outlet of Mattakeunk Stream in Winn to the Mattawamkeag and Kingman Township townline, and from the Reed Plantation and Bancroft townline to the East Branch, including its tributaries the West Branch

from the Mattawamkeag River to the Haynesville T.3, R.3, W.E.L.S. townline and from its inlet into Upper Mattawamkeag Lake to the Route 2 bridge; the East Branch from the Mattawamkeag River to the Haynesville and Forkstown Township townline and from the T.4, R 3, W.E.L.S. and Oakfield townline to Red Bridge in Oakfield; the Fish Stream from the Route 95 bridge in Island Falls to the Crystal-Patten townline; and the Baskehegan Stream from its inlet into Crooked Brook Flowage in Danforth to the Danforth and Brookton Township townline;

7. Narraguagus River. The Narraguagus River from the ice dam above the railroad bridge in Cherryfield to the Beddington and Devereaux Township townline, excluding Beddington Lake;

8. East Branch of Penobscot. The East Branch of the Penobscot from the Route 157 bridge in Medway to the East Millinocket and Grindstone Township townline;

9. Pleasant River. The Pleasant River from the railroad bridge in Columbia Falls to the Columbia and T.18, M.D., B.P.P. townline, and from the T.24, M.D., B.P.P. and Beddington townline to the outlet of Pleasant River Lake;

10. Rapid River. The Rapid River from the Magalloway Plantation and Upton townline to the outlet of Pond in the River;

11. West Branch Pleasant River. The West Branch Pleasant River from the East Branch to the Brownville and Williamsburg Township townline; and

12. West Branch of Union River. The West Branch of the Union River from the Route 9 bridge in Amherst to the outlet of Great Pond in the Town of Great Pond.

Sec. 5. 12 MRSA §§4815, 4816 and 4817 are enacted to read:

§4815. Enforcement

Any person who orders or conducts any activity in

violation of a municipal ordinance adopted under this chapter shall be subject to a civil forfeiture of not less than \$100 nor more than \$1,000 for each offense.

The Attorney General, the district attorney or the municipal officers may enforce ordinances adopted under this chapter. The court may award municipalities reasonable attorney fees for actions under this section, and ordinances may provide that civil forfeitures shall inure to the municipality.

No public utility, water district, sanitary district or any utility company of any kind may install services to any new structure located in a shoreland area, as defined by section 4811, unless written authorization attesting to the validity and currency of all local permits required under this chapter has been issued by the appropriate municipal officials.

§4816. Guidelines for shoreland zoning along significant river segments

In addition to the guidelines adopted under section 4812, the following guidelines for the protection of the shorelands shall apply along significant river segments identified in section 4811-B. These guidelines are intended to maintain the special values of these particular river segments by protecting their scenic beauty and undeveloped character.

1. New principal structures. New principal structures, except for structures related to hydropower facilities, shall be set back a minimum of 125 feet from the normal high-water mark of the river. These structures shall be screened from the river by existing vegetation.

2. New roads. Developers of new permanent roads, except for those providing access to a structure or facility allowed in the 250-foot zone, shall demonstrate that no reasonable alternative route outside of the zone exists. When roads must be located within the zone, they shall be set back as far as practicable from the normal high-water mark and screened from the river by existing vegetation.

3. New gravel pits. Developers of new gravel

pits shall demonstrate that no reasonable mining site outside of the zone exists. When gravel pits must be located within the zone, they shall be set back as far as practicable from the normal high-water mark and no less than 75 feet and screened from the river by existing vegetation.

§4817. Municipal ordinance review and certification

Each municipality with shorelands along significant river segments, as identified in section 4811-B, shall review the adequacy of the zoning on these shorelands to protect the special values cited for these river segments by the Department of Conservation's 1982 Maine Rivers Study and for consistency with the guidelines established under section 4816. Prior to December 15, 1984, each such municipality shall certify to the State Planning Office either that its existing zoning for these areas is at least as restrictive as the guidelines established under section 4816, or that it has amended its zoning for this purpose. This certification shall be accompanied by the ordinances and zoning maps covering these areas. Failure to accomplish the purposes of this subsection shall result in adoption of suitable ordinances for these municipalities, as provided for in section 4813.

Sec. 6. 12 MRSA §7776-A is enacted to read:

§7776-A. Special protection for outstanding river segments

In accordance with section 402, outstanding river segments shall include:

1. Aroostook River. The Aroostook River from the Canadian border to the Masardis and T.10, R.6, W.E.L.S. townline, excluding the segment in T.9, R.5, W.E.L.S., including its tributaries the Big Machias River from the Aroostook River to the Ashland and Garfield Plantation townline and the St. Croix Stream from the Aroostook River in Masardis to the Masardis and T.9, R.5, W.E.L.S. townline;

2. Carrabassett River. The Carrabassett River from the Kennebec River to the Carrabassett Valley

and Mt. Abram Township townline;

3. Crooked River. The Crooked River from its inlet into Sebago Lake in Casco to the Waterford and Albany Township townlines;

4. Dennys River. The Dennys River from the railroad bridge in Dennysville Station to the outlet of Meddybemps Lake, excluding the western shore in Edmunds Township and No. 14 Plantation;

5. East Machias River. The East Machias River, including the Maine River, from the old powerhouse in East Machias to the East Machias and T.18, E.D., B.P.P. townline, from the T.19, E.D., B.P.P. and Wesley townline to the outlet of Crawford Lake, and from the No. 21 Plantation and Alexander townline to the outlet of Pocomoonshine Lake, excluding Hadley Lake, Lower Mud Pond and Upper Mud Pond;

6. Fish River. The Fish River from the bridge in Fort Kent Mills to the Fort Kent and Wallagrass Plantation townline, from the T.16, R.6, W.E.L.S. and Eagle Lake townline to the Eagle Lake and Winterville Plantation townline, and from the T.14, R.6, W.E.L.S. and Portage Lake townline to the Portage Lake and T.13, R.7, W.E.L.S. townline, excluding Portage Lake;

7. Kennebago River. The Kennebago River from its inlet into Cupsuptic Lake to the Rangeley and Lower Cupsuptic Township townline;

8. Kennebec River. The Kennebec River from the Route 148 bridge in Madison to the Caratunk and The Forks Plantation townline, excluding the western shore in Concord Township, Pleasant Ridge Plantation and Carrying Place Township, and excluding Wyman Lake;

9. Machias River. The Machias River from the Route 1 bridge to the Northfield and T.19, M.D., B.P.P. townline, including its tributaries the Old Stream from the Machias River to the northern most crossing of the Wesley and T.31, M.D., B.P.P. townline, excluding the segments in T.25, M.D., B.P.P. and T.31, M.D., B.P.P.;

10. Mattawamkeag River. The Mattawamkeag River from the Penobscot River to the Mattawamkeag and Kingman Township townline, and from the Reed Plantation and Bancroft townline to the East Branch, including its tributaries the West Branch from the Mattawamkeag River to the Haynesville and T.3, R.3, W.E.L.S. townline and from its inlet into Upper Mattawamkeag Lake in Island Falls to the Hersey and Moro Plantation townline; the East Branch from the Mattawamkeag River to the Haynesville and Forkstown Township townline and from the T.4, R.3, W.E.L.S. and Oakfield townline to the Smyrna and Dudley Township townline; the Fish Stream for the West Branch of the Mattawamkeag River to the Crystal and Patten townline; the Molunkus Stream from the Silver Ridge Township and Benedicta townline to the East Branch Molunkus Stream; the Macwahoc Stream from the Silver Ridge Township and Sherman townline to the outlet of Macwahoc Lake; and the Baskehegan Stream from the Mattawamkeag River to the Danforth and Brookton Township townline, and from the Brookton Township and Topsfield townline to the Topsfield and Kossuth Township townline, excluding Baskehegan Lake and Crooked Brook Flowage;

11. Narraguagus River. The Narraguagus River from the ice dam above the railroad bridge in Cherryfield to the Beddington and Devereaux Township townline, excluding Beddington Lake;

12. Penobscot River. The Penobscot River from the Bangor Dam in Bangor to the Veazie Dam and its tributary the East Branch of the Penobscot from the Penobscot River to the East Millinocket and Grindstone Township townline;

13. Piscataquis River. The Piscataquis River from the Penobscot River to the Monson and Blanchard Plantation townline, including its tributaries the East and West Branches of the Piscataquis River from the Blanchard Plantation and Shirley townline to the Shirley and Little Squaw Township townline; the Seboeis Stream from its confluence with the Piscataquis River in Howland to the Howland and Mattamiscontis Township townline and from the Mattamiscontis and Maxfield townline to the Maxfield and Seboeis Plantation townline, excluding Shirley

Pond and West Shirley Bog;

14. Pleasant River. The Pleasant River from the dam in Columbia Falls (formerly the Hathaway Dam) to the Columbia and T.18, M.D., B.P.P. townline, and from the T.24, M.D., B.P.P. and Beddington townline to the outlet of Pleasant River Lake in Beddington;

15. Rapid River. The Rapid River from the Magalloway Plantation and Upton townline to the outlet of Pond in the River;

16. Saco River. The Saco River from the Little Ossipee River to the New Hampshire border;

17. St. Croix River. The St. Croix River from the cotton mill dam in Milltown to the Calais and Baring Plantation townline, from the Baring Plantation and Baileyville townline to the Baileyville and Fowler Township townline, and from the Lambert Lake Township and Vanceboro townline to the outlet of Spednik Lake, excluding Woodland Lake and Grand Falls Flowage;

18. St. George River. The St. George River from the Route 90 bridge in Warren to the outlet of Lake St. George in Liberty, excluding White Oak Pond, Seven Tree Pond, Round Pond, Sennebec Pond, Trues Pond, Stevens Pond and Little Pond;

19. St. John River. The St. John River from the Hamlin Plantation and Van Buren townline to the Fort Kent and St. John Plantation townline, and from the St. John Plantation and St. Francis townline to the Allagash and St. Francis townline;

20. Sandy River. The Sandy River from the Kennebec River to the Madrid and Township E townline;

21. Sheepscot River. The Sheepscot River from the Head Tide dam in Alna to the Halldale Road in Montville, excluding Long Pond and Sheepscot Pond, including its tributary the West Branch of the Sheepscot from its confluence with the Sheepscot River in Whitefield to the outlet of Branch Pond in China;

total shore footage. This exception shall not apply to any project on outstanding river segments, as identified in section 7776-A.

Sec. 9. 30 MRSA c. 203-A is enacted to read:

CHAPTER 203-A

RIVER CORRIDOR COMMISSIONS

§1961. River corridor commissions encouraged

1. Findings. The Legislature finds:

A. That the effectiveness of local governments in implementing their responsibilities under shoreland zoning can be enhanced by coordination and cooperation among municipalities;

B. That river corridor commissions have proven their effectiveness as one mechanism to bring about such coordination and cooperation;

C. That additional river corridor commissions are not likely to be formed without state encouragement and incentives; and

D. That such cooperation serves state interests as stated in Title 12, section 402 and chapter 424.

2. Purpose. It is the policy of the State to encourage the formation of river corridor commissions. The purpose of this law is to:

A. Clarify procedures for forming river corridor commissions;

B. Delegate authority to the Commissioner of Conservation to approve acceptable proposals to form the river corridor commissions;

C. Grant additional powers to those river corridor commissions beyond those provided for in chapter 203; and

D. Provide a portion of the funding for the

operation of the river corridor commissions.

§1962. Definitions

As used in this chapter, unless the context indicates otherwise, the following terms have the following meanings.

1. Commission. "Commission" means a river corridor commission granted approval by the commissioner under section 1963.

2. Commissioner. "Commissioner" means the Commissioner of Conservation.

3. Department. "Department" means the Department of Conservation.

§1963. Approval of river corridor commissions

The commissioner may grant commission status and all the privileges and powers enjoyed by the commissions, as specified in this chapter, when he finds that:

1. Occupation of shoreland by 2 or more municipalities. Two or more municipalities, which collectively occupy enough of the shoreland on a river segment to be effective in managing the shorelands of the river, have entered into an agreement, pursuant to the requirements of chapter 203, which satisfies the requirements of section 1964;

2. Comprehensive plan. The same municipalities have prepared a comprehensive plan which satisfies the requirements of section 1965;

3. Ordinance. The same municipalities have prepared an ordinance to implement the comprehensive plan which satisfies the requirements of section 1966; and

4. Other commissions. No other commission exists on the same river, or the distance between the proposed and existing commissions makes the formation of one larger commission impractical.

§1964. Interlocal agreement

In addition to the requirements of section 1953, the interlocal agreement shall be consistent with regulations adopted by the commissioner under the Maine Administrative Procedure Act, Title 5, chapter 375. These regulations may include, but are not limited to:

1. Minimum duration. The minimum duration of the agreement;

2. Members; appointment. How members may be appointed;

3. Municipal responsibilities for financing. What the towns' responsibilities for financing the commission are; and

4. Withdrawal. How and under what circumstances towns may withdraw from the commission.

§1965. Comprehensive plan

The comprehensive plan shall be consistent with rules adopted by the commissioner under the Maine Administrative Procedure Act, Title 5, chapter 375. These rules may include, but are not limited to:

1. Resources; problems. What resources or problems the plan must address;

2. Information; analyses. Information and analyses the plan must contain; and

3. Specificity; clarity. The degree of specificity and clarity sought in the plan.

§1966. Ordinance

The ordinance to implement the plan shall be at least as restrictive as the state's guidelines for municipal shoreland zoning ordinances and shall supersede existing shoreland zoning ordinances. The ordinance shall contain adequate procedures for processing permit requests and for considering appeals of a decision made by the commission.

§1964. Interlocal agreement

In addition to the requirements of section 1953, the interlocal agreement shall be consistent with regulations adopted by the commissioner under the Maine Administrative Procedure Act, Title 5, chapter 375. These regulations may include, but are not limited to:

1. Minimum duration. The minimum duration of the agreement;

2. Members; appointment. How members may be appointed;

3. Municipal responsibilities for financing. What the towns' responsibilities for financing the commission are; and

4. Withdrawal. How and under what circumstances towns may withdraw from the commission.

§1965. Comprehensive plan

The comprehensive plan shall be consistent with rules adopted by the commissioner under the Maine Administrative Procedure Act, Title 5, chapter 375. These rules may include, but are not limited to:

1. Resources; problems. What resources or problems the plan must address;

2. Information; analyses. Information and analyses the plan must contain; and

3. Specificity; clarity. The degree of specificity and clarity sought in the plan.

§1966. Ordinance

The ordinance to implement the plan shall be at least as restrictive as the state's guidelines for municipal shoreland zoning ordinances and shall supersede existing shoreland zoning ordinances. The ordinance shall contain adequate procedures for processing permit requests and for considering appeals of a decision made by the commission.

§1967. Powers of a river corridor commission.

Notwithstanding the provisions of section 1953, subsection 6, an approved commission may exercise the following powers:

1. Amendment to comprehensive plan. To amend the comprehensive plan, after notice and hearing on the proposed amendment in accordance with the Maine Administrative Procedure Act, Title 5, chapter 375;

2. Adoption of rules, regulations or ordinances. To adopt and amend rules, regulations or ordinances covering an area up to 500 feet from the normal high-water mark necessary to implement the comprehensive plan, after notice and hearing on the proposed amendment or adoption, in accordance with the Maine Administrative Procedure Act, Title 5, chapter 375;

3. Issuance of permits. To issue permits, subject to reasonable conditions for activities requiring permits, or to deny permits pursuant to ordinances and regulations adopted by the commission;

4. Fees. To assess fees for permit or variance applications, or for any publications of the commission;

5. Suit. To sue and be sued; and

6. Enforcement. To enforce the rules, ordinances or regulations of the commission by instituting any lawful action, injunction or other proceeding to prevent, restrain, correct or abate any violation of its rules, regulations or ordinances, and to impose fines as permitted under Title 12, chapter 424.

§1968. Commission budget; financing; staff

The commission shall prepare and submit to the commissioner a biennial budget sufficient to cover its operating and other expenses. Provided the commission continues to satisfy the requirements of section 1963, the commissioner shall request funds to match the funds raised by the commission. In no event may the state contribution exceed \$25,000 for

any one commission in any year. The commission may accept contributions of any type from any source to assist it in carrying out its assigned tasks, and make such agreements with respect to the administration of such funds, not inconsistent with the purpose of this law, as are required as conditions precedent to receiving such funds, federal or otherwise. Staff of the commission shall not be considered employees of the State.

§1969. Appeals to Superior Court

Except where otherwise specified by law, any party or person aggrieved by any order or decision of the commission may, within 30 days after notice of the filing of that order or decision, appeal to the Superior Court by filing a notice of appeal stating the grounds for appeal. The appeals shall be taken pursuant to Title 5, section 11001.

Sec. 10. 30 MRSA §4956, sub-§1, as repealed and replaced by PL 1975, c. 475, §1, is amended by adding at the end a new paragraph to read:

A "densely developed area" is defined as any commercial, industrial or compact residential area of 10 or more acres with an existing density of at least one principal structure per 2 acres. A principal structure is defined as any building other than one which is used for purposes wholly incidental or accessory to the use of another building on the same premises.

Sec. 11. 30 MRSA §4956, sub-§1-A is enacted to read:

1-A. Special protection for the shorelands of outstanding river segments. In accordance with Title 12, section 402, outstanding river segments shall include:

A. The Aroostook River from the Canadian border to the Masardis and T.10, R.6, W.E.L.S. townline, excluding the segment in T.9, R.5, W.E.L.S.;

B. The Carrabassett River from the Kennebec River to the Carrabassett Valley and Mt. Abram

Township townline;

C. The Crooked River from its inlet into Sebago Lake to the Waterford and Albany Township townline;

D. The Damariscotta River from the Route 1 bridge in Damariscotta to the dam at Damariscotta Mills;

E. The Dennys River from the Route 1 bridge to the outlet of Meddybemps Lake, excluding the western shore in Edmunds Township and No. 14 Plantation;

F. The East Machias River, including the Maine River, from 1/4 of a mile above the Route 1 bridge to the East Machias and T.18, E.D., B.P.P. townline, from the T.19, E.D., B.P.P. and Wesley townline to the outlet of Crawford Lake, and from the No. 21 Plantation and Alexander townline to the outlet of Pocomoonshine Lake, excluding Hadley Lake, Lower Mud Pond and Upper Mud Pond;

G. The Fish River from the bridge at Fort Kent Mills to the Fort Kent and Wallagrass Plantation townline, from the T.16, R.6, W.E.L.S. and Eagle Lake townline to the Eagle Lake and Winterville Plantation townline, and from the T.14, R.6, W.E.L.S. and Portage Lake townline to the Portage Lake and T.13, R.7, W.E.L.S. townline, excluding Portage Lake;

H. The Kennebago River from its inlet into Cupsuptic Lake to the Rangeley and Lower Cupsuptic Township townline;

I. The Kennebec River from Thorns Head Narrows in North Bath to the Edwards Dam in Augusta, excluding Perkins Township, and from the Route 148 bridge in Madison to the Caratunk and The Forks Plantation townline, excluding the western shore in Concord Township, Pleasant Ridge Plantation and Carrying Place Township and excluding Wyman Lake;

J. The Machias River from the Route 1 bridge to

the Northfield and T.19, M.D., B.P.P. townline;

K. The Mattawamkeag River from the Penobscot River to the Mattawamkeag and Kingman Township townline, and from the Reed Plantation and Bancroft townline to the East Branch in Haynesville;

L. The Narraguagus River from the ice dam above the railroad bridge in Cherryfield to the Beddington and Devereaux Township townlines, excluding Beddington Lake;

M. The Penobscot River, including the Eastern Channel, from Sandy Point in Stockton Springs to the Veazie Dam and its tributary the East Branch of the Penobscot from the Penobscot River to the East Millinocket and Grindstone Township townline;

N. The Piscataquis River from the Penobscot River to the Monson and Blanchard Plantation townline;

O. The Pleasant River from the bridge in Addison to the Columbia and T.18, M.D., B.P.P. townline, and from the T.24, M.D., B.P.P. and Beddington townline to the outlet of Pleasant River Lake;

P. The Rapid River from the Magalloway Plantation and Upton townline to the outlet of Pond in the River;

Q. The Saco River from the Little Ossipee River to the New Hampshire border;

R. The St. Croix River from the Route 1 bridge in Calais to the Calais and Baring Plantation townline, from the Baring Plantation and Baileyville townline to the Baileyville and Fowler Township townline, and from the Lambert Lake Township and Vanceboro townline to the outlet of Spednik Lake, excluding Woodland Lake and Grand Falls Flowage;

S. The St. George River from the Route 1 bridge in Thomaston to the outlet of Lake St. George in

Liberty, excluding White Oak Pond, Seven Tree Pond, Round Pond, Sennebec Pond, Trues Pond, Stevens Pond and Little Pond;

T. The St. John River from the Van Buren and Hamlin Plantation townline to the Fort Kent and St. John Plantation townline, and from the St. John Plantation and St. Francis townline to the Allagash and St. Francis townline;

U. The Sandy River from the Kennebec River to the Madrid and Township E townline;

V. The Sheepscot River from the railroad bridge in Wiscasset to the Halldale Road in Montville, excluding Long Pond and Sheepscot Pond, including its tributary the West Branch of the Sheepscot from its confluence with the Sheepscot River in Whitefield to the outlet of Branch Pond in China;

W. The West Branch Pleasant River from the East Branch in Brownville to the Brownville and Williamsburg Township townline; and

X. The West Branch Union River from the Route 181 bridge in Mariaville to the outlet of Great Pond in the Town of Great Pond.

Sec. 12. 30 MRSA §4956, sub-§3, ¶L, as repealed and replaced by PL 1971, c. 454, is amended to read:

L. Whenever situated, in whole or in part, within 250 feet of any pond, lake, river or tidal waters, will not adversely affect the quality of such that body of water or unreasonably affect the shoreline of such that body of water.

Furthermore, when lots in a subdivision have frontage on an outstanding river segment, as defined in subsection 1-A, the proposed subdivision plan shall require principal structures to have a combined lot shore frontage and setback from the normal high-water mark of 500 feet. To avoid circumventing the intent of this provision, whenever a proposed subdivision adjoins a shoreland strip narrower than 250 feet which is not lotted, the proposed subdivision shall be reviewed as if

lot lines extended to the shore. These frontage and set-back provisions shall not apply either within areas zoned as general development or its equivalent under shoreland zoning, Title 12, section 4813, or within areas designated by ordinance as densely developed. The determination of which areas are densely developed shall be based on a finding that, as of the effective date of this Act, existing development meets the requirements of subsection 1.

Sec. 13. 33 MRSA §668, first ¶, as enacted by PL 1969, c. 566, §2, is amended to read:

No conservation restriction as defined in section 667 held by any governmental body or held on a river shoreline by a private nonprofit corporation of this State, whose purposes include conservation of land or water areas or of a particular ~~such~~ area, ~~shall~~ may be unenforceable on account of lack of privity of estate or contract or lack of benefit to particular land or on account of the benefit being assignable or being assigned to any other governmental body or, a private nonprofit corporation of this State with like purposes. All such restrictions shall be duly recorded and indexed in the registry of deeds for the county where the land lies so as to affect its title, in the manner of other conveyances of interests in land, and shall describe the land subject to ~~said the~~ restrictions by adequate legal description or by reference to a recorded plan showing its boundaries.

Sec. 14. 38 MRSA §621, as enacted by PL 1979, c. 465, is repealed.

Sec. 15. 38 MRSA §622, as amended by PL 1981, c. 470, Pt. A, §168, is repealed.

Sec. 16. 38 MRSA §§623-625, as enacted by PL 1979, c. 465, are repealed.

Sec. 17. 38 MRSA §626, as amended by PL 1981, c. 470, Pt. A, §169, is repealed.

Sec. 18. 38 MRSA c. 5, sub-c. 1, Art. 1, sub-art. 1-B is enacted to read:

Subarticle 1-B. Permits for hydropower projects

§630. Short title

This subarticle may be cited and referred to in proceedings and agreements as the "Maine Waterway Development and Conservation Act."

§631. Purposes

1. Findings. The Legislature finds and declares that the surface waters of the State constitute a valuable indigenous and renewable energy resource; and that hydropower development utilizing these waters is unique in its benefits and impacts to the natural environment, and makes a significant contribution to the general welfare of the citizens of the State for the following reasons.

A. Hydropower is the state's only economically feasible, large-scale energy resource which does not rely on combustion of a fuel, thereby avoiding air pollution, solid waste disposal problems and hazards to human health from emissions, wastes and by-products. Hydropower can be developed at many sites with minimal environmental impacts, especially at sites with existing dams or where current type turbines can be used.

B. Like all energy generating facilities, hydropower projects can have adverse effects; in contrast with other energy sources, they may also have positive environmental effects. For example, hydropower dams can control floods and augment downstream flow to improve fish and wildlife habitats, water quality and recreational opportunities.

C. Hydropower is presently the state's most significant indigenous resource that can be used to free our citizens from their extreme dependence on foreign oil for peaking power.

2. Policy and purpose. The Legislature declares that hydropower justifies singular treatment. The Legislature further declares that it is the policy of the State to support and encourage the development of

hydropower projects by simplifying and clarifying requirements for permits, while assuring reasonable protection of natural resources and the public interest in use of waters of the State. It is the purpose of this subarticle to require a single application and permit for the construction of all hydropower projects and for the reconstruction or structural alteration of certain projects, including water storage projects. The permit application process shall be administered by the Department of Environmental Protection, except that, for hydropower projects within the jurisdiction of the Maine Land Use Regulation Commission, the commission shall administer the permit application process under this subarticle.

§632. Definitions

As used in this subarticle, unless the context indicates otherwise, the following terms have the following meanings.

1. Board. "Board" means the Board of Environmental Protection, except that, for any hydropower project within the jurisdiction of the Maine Land Use Regulation Commission, "board" means the Maine Land Use Regulation Commission.

2. Department. "Department" means the Department of Environmental Protection.

3. Hydropower project. "Hydropower project" means any development which utilizes the flow of water as a source of electrical or mechanical power or which regulates the flow of water for the purpose of generating electrical or mechanical power. A hydropower project development includes all powerhouses, dams, water conduits, transmission lines, water impoundments, roads and other appurtenant works and structures that are part of the development.

§633. Prohibition

1. Permit required. No person may initiate construction or reconstruction of a hydropower project, or structurally alter a hydropower project in ways which change water levels or flows above or below the

dam, without first obtaining a permit from the board.

2. Exceptions. This subarticle shall not apply to activities for which, prior to the effective date of this Act, a permit or permits have been issued pursuant to any of the following laws: Land use regulation laws, Title 12, sections 681 to 689; stream alteration laws, Title 12, sections 7776 to 7780; great ponds laws, sections 391 to 394; alteration of coastal wetlands laws, sections 471 to 478; site location of development laws, sections 481 to 490; and small hydroelectric generating facilities laws, sections 621 to 626.

3. Exemptions. Normal maintenance and repair of an existing and operating hydropower project shall be exempt from this subarticle, provided that:

A. The activity does not involve any dredging or filling below the normal high-water line of any great pond, coastal wetland, river, stream or brook; and

B. The activity does not involve any dredging or filling on the land adjacent to any great pond, coastal wetland, river, stream or brook such that any dredged spoil, fill or structure may fall or be washed into those waters.

§634. Permit requirements

1. Coordinated permit review. Permits required under the following laws shall not be required by any state agency for projects reviewed or exempted from review under this subarticle: Land use regulation laws, Title 12, sections 681 to 689; stream alteration laws, Title 12, sections 7776 to 7780; great ponds laws, sections 391 to 394; alteration of coastal wetlands laws, sections 471 to 478; and site location of development laws, sections 481 to 490. Notwithstanding section 654, the board may attach reasonable conditions consistent with this Act concerning the operation of hydropower projects. The board shall give written notice to the Commissioner of Inland Fisheries and Wildlife and the Commissioner of Marine Resources of the intent of any applicant for a permit to construct a dam.

Issuance of a water quality certificate required under the United States Water Pollution Control Act, Section 401, shall be coordinated for the applicant under this subarticle by the Department of Environmental Protection. The issuance of a water quality certificate shall be mandatory in every case where the board approves an application under this subarticle. The coordination function of the department with respect to water quality certification shall not include any proceedings or substantive criteria in addition to those otherwise required by this subarticle.

2. Application. An application for a permit required by section 633 shall be made on forms provided by the board and shall be filed with the board. Public notice of the filing shall be made as required by the board.

3. Application review. Within 10 working days of receiving a completed application, the Commissioner of Environmental Protection or the Director of the Maine Land Use Regulation Commission, as appropriate, shall notify the applicant of the official date on which the application was accepted.

The commissioner or the director, as appropriate, shall circulate the application among the Department of Environmental Protection, Department of Conservation, Department of Inland Fisheries and Wildlife, Department of Marine Resources, Department of Transportation, Maine Historic Preservation Commission, Office of Energy Resources, Public Utilities Commission and the municipal officials of the municipality in which the project is located. The Office of Energy Resources and the Public Utilities Commission shall submit written comments on section 636, subsection 7, paragraph F. For projects within the jurisdiction of the Maine Land Use Regulation Commission, the director may request and obtain technical assistance and recommendations from the staff of the department. The department shall respond to the requests in a timely manner. The department's recommendations shall be considered by the commission in acting upon a project application.

§635. Board decision

The board shall, within 30 days of receipt of a completed application, either:

1. Approval. Approve the proposed project upon such terms and conditions as are appropriate and reasonable to protect and preserve the environment and the public's health, safety and general welfare, including the public interest in replacing oil with hydroelectric energy. These terms and conditions may include, but are not limited to:

A. Establishment of a water level range for the body of water impounded by a hydropower project;

B. Establishment of instantaneous minimum flows for the body of water affected by a hydropower project; and

C. Provision for the construction and maintenance of fish passage facilities;

In those cases where the proposed project involves maintenance, reconstruction or structural alteration at an existing hydropower project and where the proposed project will not alter historic water levels or flows after its completion, the board may impose temporary terms and conditions of approval relating to paragraph A or paragraph B but shall not impose permanent terms and conditions that alter historic water levels or flows;

2. Disapproval. Disapprove the proposed project, setting forth in writing the reasons for the disapproval; or

3. Hearing. Schedule a hearing on the proposed project. Any hearing held under this subsection shall follow the notice requirements and procedures for an adjudicatory hearing under Title 5, chapter 375, subchapter IV. Within 45 days after the board adjourns any hearing held under this subsection, it shall make findings of facts and issue an order approving or disapproving the proposed project, as provided in subsections 1 and 2.

§636. Approval criteria

The board shall approve a project when it finds that the applicant has demonstrated that the following criteria have been met.

1. Financial capability. The applicant has the financial capability and technical ability to undertake the project. In the event that the applicant is unable to demonstrate financial capability, the board may grant the permit contingent upon the applicant's demonstration of financial capability prior to commencement of the activities permitted.

2. Safety. The applicant has made adequate provisions for protection of public safety.

3. Public benefits. The project will result in significant economic benefits to the public, including, but not limited to, creation of employment opportunities for workers of the State.

4. Traffic movement. The applicant has made adequate provisions for traffic movement of all types out of or into the development area.

5. Maine Land Use Regulation Commission. Within the jurisdiction of the Maine Land Use Regulation Commission, the project is consistent with zoning adopted by the commission.

6. Environmental mitigation. The applicant has made reasonable provisions to realize the environmental benefits of the project, if any, and to mitigate its adverse environmental impacts.

7. Environmental and energy considerations. The advantages of the project are greater than the direct and cumulative adverse impacts over the life of the project based upon the following considerations:

A. Whether the project will result in significant benefit or harm to soil stability, water quality, coastal and inland wetlands or the natural environment of any surface waters and their shorelands;

B. Whether the project will result in significant benefit or harm to fish and wildlife

resources. In making its determination, the board shall consider other existing uses of the watershed and fisheries management plans adopted by the Department of Inland Fisheries and Wildlife, the Department of Marine Resources and the Atlantic Sea Run Salmon Commission;

C. Whether the project will result in significant benefit or harm to historic and archeological resources;

D. Whether the project will result in significant benefit or harm to the public rights of access to and use of the surface waters of the State for navigation, fishing, fowling, recreation and other lawful public uses;

E. Whether the project will result in significant flood control benefits or flood hazards; and

F. Whether the project will result in significant hydroelectric energy benefits, including the increase in generating capacity and annual energy output resulting from the project, and the amount of nonrenewable fuels it would replace.

The board shall make a written finding of fact with respect to the nature and magnitude of the impact of the project on each of the considerations under this subsection, and a written explanation of their use of these findings in reaching their decision.

Sec. 19. Commission on Local Land Use Violations. Swift effective enforcement against suspected violations of land use laws and ordinances is essential to the intended purpose of these statutes, but it is commonly asserted that the court system is not being used effectively, especially by small towns, to resolve these cases. There is created a Commission on Local Land Use Violations, known in this section as the "commission."

The commission shall be composed of 11 members as follows: Two members appointed by the President of the Senate, one to be a member of the Joint Standing Committee on Energy and Natural Resources and one to be a Senator knowledgeable about land use issues; 2

members appointed by the Speaker of the House of Representatives, one to be a member of the Joint Standing Committee on Judiciary and one to be a Representative knowledgeable about land use issues; and 7 members appointed by the Governor, one to be a local elected official, one to be an appointed local official, one to be a representative of the court system, one to be a representative of the Maine Association of Planners, one to be a representative of the Maine Bar Association, one to represent real estate interests, and one to be a representative of the general public, knowledgeable about land use issues. The commission shall hold an organizational meeting within 30 days after the adjournment of the Legislature at the call of the Chairman of the Legislative Council. At this meeting, the commission shall elect a chairman and a vice-chairman from within the membership.

The commission shall review the use of the state's court system to resolve suspected violations of local ordinances under the mandatory shoreland zoning laws, Title 12, chapter 424; the subdivision laws Title 30, section 4956; the state plumbing laws, Title 22, section 42; and other land use laws enforced by municipalities. This review shall examine the extent to which such local ordinances are or are not being adequately enforced, especially by small towns, where court action appears to provide the only existing appropriate recourse. The commission shall determine the causes for any problems uncovered and document examples to support its findings. The commission shall evaluate alternatives to the existing court procedures, including the establishment of a statewide system of land use hearing examiners. The commission shall make recommendations to secure just, swift, inexpensive and effective resolution of suspected land use violation cases, especially by small towns, without creating unreasonable burdens for the state's courts system.

The commission shall report its findings, together with any suggested legislation, to the Second Regular Session of the 111th Legislature on or before January 13, 1984.

The State Planning Office and the Division of

Health Engineering in the Department of Human Services shall provide staff support to the commission and administer its functions.

All executive departments are directed to give prompt assistance to the commission.

The commission may accept funds from any agency of the United States.

In House of Representatives, 1983

Read twice and passed to be enacted.

..... Speaker

In Senate, 1983

Read twice and passed to be enacted.

..... President

Approved 1983

..... Governor

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Rivers Study, Maine Department of Conservation

HANCOCK COUNTY MAINE

STUDY AREA LOCATION

HANCOCK COUNTY PLANNING COMMISSION,
ELLSWORTH, MAINE

UNION RIVER DRAINAGE BASINS

FOREST LAND OWNERSHIP

EXISTING LAND USE

Draft

THE NATURAL REGIONS OF MAINE

prepared for
MAINE CRITICAL AREAS PROGRAM
MAINE STATE PLANNING OFFICE

by the
CENTER FOR NATURAL AREAS
South Gardiner, Maine

Principal Investigators:
Paul R. Adamus M.S.
Garrett C. Clough PhD.

JUNE 1976

Draft

Names of the natural regions and subregions of Maine.

Legend for Figures 1 and 2.

1. COASTAL REGION

- 1a. Sandy Beach
- 1b. Transition
- ✓ 1c. Penobscot-Muscongus Bays
- ✓ 1d. Eastern
- 1e. Cobscook Bay

2. UPLANDS REGION

- 2a. Oak Forest
- 2b. Pine Forest
- 2c. Belgrade-Cobbossee Lakes
- ✓ 2d. Foothills
- ✓ 2e. Norumbega Hills

3. NORTHERN FOREST

- 3a. Northern Lowlands
- 3b. Allagash-St. John River
- 3c. Moosehead-Churchill Lakes
- ✓ 3d. Eastern Bogs
- 3e. Aroostook Limestone

4. MOUNTAINS REGION

- 4a. Alpine
- 4b. Rangeley Lakes

The natural regions
of Maine (see
following page for legend).

Region Boundary ———
 Subregion Boundary - - - - -
 Disjunct Part of Subregion — — —
 County Line

2: The natural regions and subregions with boundaries by minor civil divisions.

VI. Documentation of Significant River Related Natural and Recreational Values

The following documentation for each of the rivers on the "A" and "B" lists describes related resource values identified through this study having a minimum value of at least regional, statewide, or greater than state significance. It defines those features which merit attention by those concerned with the conservation of a particular river. In this way, a river can be assessed both as a whole and in parts, related to the distribution and significance of specific resource values. This documentation of resources should also be viewed as a tool for identifying areas of competing resource use, defining the general degree of conflict as well as suggesting means of conflict avoidance and mitigation.

Key to Documentation Maps

Each of the significant resource values associated with the "A" and "B" rivers has been mapped as a part of the documentation process. Site specific values (such as waterfalls, historic sites, or wildlife management areas) have their locations identified on the map of the river with a symbol representing the resource. Resource values which are linear in nature (such as canoeing, fishing, or areas of river corridor containing habitat for rare botanical species) are identified for the main branch of the river on a bar chart which displays the segment of river where a significant resource value is found.

One of the values defined on the bar chart is undeveloped river corridors. The level of development of a particular river corridor (the 1/4 mile area of land adjacent to either side of the river) was defined using the development point index which was explained earlier in this report in the section on Undeveloped Rivers. A gradient of five textures of dots was used to show levels of development in river corridor areas, the darker the pattern the more developed the river corridor.

The range of average development points per mile and their corresponding pattern is as follows:

0 - 10 points
10 - 20 points
20 - 30 points
30 - 40 points
40 + points

The following symbols have been used to identify resource values on the main branch and tributaries of each of the rivers from the "A" and "B" list that were documented:

GEOLOGIC/HYDROLOGIC

Waterfall

Gorge

CRITICAL/ECOLOGIC

Botanic

Nature Study Area

Wildlife Management Area

Old Growth White Pine Stand

Bald Eagle Habitat

UNDEVELOPED RIVER CORRIDORS

NATIONAL HISTORIC SITES AND LANDMARKS

ANADROMOUS FISHERIES

INLAND FISHERIES

CANOE TOURING RIVERS

WHITEWATER BOATING

Whitewater Rapids

BACKCOUNTRY EXCURSION RIVERS

West Branch Union River

Graham Lake to headwaters of Great Pond

MAIN BRANCH
SIGNIFICANT RIVER
RESOURCE VALUES

MAIN BRANCH
SIGNIFICANT RIVER
RESOURCE VALUES
BY SEGMENT

MAINE RIVERS STUDY
MAINE DEPT. OF CONSERVATION
NATIONAL PARK SERVICE

MAINE RIVERS STUDY
SIGNIFICANT RIVER RELATED NATURAL AND RECREATIONAL VALUES

River name: West Branch Union River

Length in miles: 24

Segment: Graham Lake to headwaters of Great Pond County: Hancock

River Values

Geologic/Hydrologic: The Silsby Plain near the town of Silsby on the West Branch is a regionally outstanding example of a sandy glacial outwash plain associated with numerous glacial eskers. Extensive cultivation of blueberries now takes place on this outwash plain.

Undeveloped: The West Branch is one of the most primitive rivers in the state's eastern mid-coastal region, especially the segment above Amherst.

Scenic: The river has a regionally significant diversity of geomorphic, vegetative, and hydrologic elements combining to produce areas of outstanding scenery in the vicinity of the flowage.

Anadromous Fish: A historic anadromous fish run located on the segment is presently blocked. Sea run salmon are taken in the tidal waters at the river's mouth, and the upstream portion is a stocked salmon fishery.

Inland Fish: The West Branch between Route 9 and Great Pond is recognized as a significant native brook trout and stocked brown trout fishery. Access to the West Branch is restricted and use is low to medium.

Boating: The segment between Amherst and Great Pond is an 11 mile locally popular canoe trip with runnable or portageable class III-IV rapids and numerous riffles.

AMHERST

ZONING MAP

- RURAL RESIDENTIAL
- RESOURCE PROTECTION
- SHORELAND RESIDENTIAL

SPECIALLY NOTED AREAS UNDER RESOURCE PROTECTION

- ① UNION RIVER - From gaging station to temporary leap bridge.
- ② UNION RIVER - East Shore Rt. 9 to town line.
- ③ JELLYSON HILL POND - From northeast corner, south along east shore ledge to outlet on southwest corner.

HANCOCK COUNTY PLANNING COMMISSION,
ELLSWORTH, MAINE

SHORELAND ZONING AURORA

- Limited Residential/Recreational
- Resource Protection
- Resource Protection/Deer Yards

EASTBROOK SHORELAND ZONING

HANCOCK COUNTY PLANNING COMM.

- Shoreland Residential Zone
- Resource Protection Zone

LURC PROTECTION ZONES GREAT POND

- Shoreline 250' Strip
- Shoreline 75' Strip
- Residential
- General
- Wetlands
- Fish & Wildlife

3000 0 3000 6000 Feet
1000 0 1000 2000 Meters

HANCOCK COUNTY PLANNING COMMISSION

MARIAVILLE ZONING MAP

WALTHAM

SHORELAND ZONING

75' Resource Protection
175' Limited Residential
Recreational

3000 0 3000 6000 FEET
1700 0 1000 2000 METERS
HANCOCK COUNTY PLANNING COMMISSION

LURC PROTECTION DISTRICTS OSBORN

- Shoreland 250' Strip
- Great Pond
- Residential
- Wetlands

LURC PROTECTION ZONES T22MD

- — — River/Stream Shoreline 250' Strip
- • — Lake/Pond Shoreline 250' Strip
- • • • • } Wetlands District
- } Wetlands District
- Fish & Wildlife District

LURC PROTECTION ZONES T28 MD

- River Stream Shoreline 250' Str.
- Lake Pond Shoreline 250' Strip
- Wetlands Districts
- Fish & Wildlife District

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