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Comprehensive Land Use Planning: Its Development and Potential Impact on Coastal Zone Management

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The University of Rhode Island

COMPREHENSIVE LAND USE PLANNING--ITS DEVELOPMENT
AND POTENTIAL IMPACT ON COASTAL ZONE MANAGEMENT

Marine Affairs Seminar

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This paper is designed to provide the current status of efforts on comprehensive land use management by both the federal and Rhode Island State levels of government. In attempting to be as current as possible, it was difficult, at times, to obtain the necessary references and background materials. However, the writer was extremely fortunate to encounter, in the course of the development of this paper, most cooperative and helpful people.

First, an employee of the Office of Regional Planning in the Federal Department of Interior provided the writer with insight on federal inter-agency interaction and assisted the writer in obtaining information on the current federal attitude on comprehensive land use legislation. Regrettably, this person desires to remain anonymous. However, without his help the "inside" information on the federal government would not have been attained.

Second, the writer wishes to thank Mrs. Susan Morrisson, Senior Planner at the Statewide Planning Program in Providence, Rhode Island for the assistance she provided the writer in obtaining difficult-to-find supporting information on comprehensive land use planning. In addition, the writer wishes to thank Mrs. Morrisson for the time supplied in explaining land use planning in Rhode Island.

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Presently, the United States is in the midst of a "revolution" concerning the management and use regulation of its land resources.¹ This peaceful "revolution" is occurring as a consequence of local government's inability to properly enforce land use controls and to adequately cope with rapid land development. The woeful conditions of our urban areas; the dwindling supply of land, a once superabundant resource; the increasing rate in environmental degradation, and the accelerating increase in problems arising from conflicting usage--all happening under the purview of local government--contribute to the radical changes taking place in land use reform.

Deviation from traditional land control systems, initially, ensued as a response to urban sprawl and conflicting land utilization, factors which have been occurring in disregard of local zoning ordinances.² To anyone who has recently visited any large metropolitan area in the United States, it is grossly obvious that zoning practices have been largely piecemeal and that zoning ordinances have been approved on the basis of short-term economic gain of the local community. In this respect, some observers have stated that most large cities with viable zoning ordinances have not exhibited better land management practices than the City of Houston, Texas, which possesses no land use controls or zoning ordinances at all.³ In addition, con-

flicting land use along boundaries of adjacent zoning municipalities, a result of the insularity of zoning boards, defeats all rational land use planning and accentuates the problems of individual zoning practices.⁴

Until recently, the only direct involvement of the federal government with land use management was its support of regional, state and local land use planning through the planning assistance program established by Section 701 of the "Housing Act of 1954," as amended.⁵ However, because of the inadequate management practices exhibited by the cities and as a result of several national studies examining the problems and potentials of "growth," the federal government enacted the "Urban Growth and New Community Development Act of 1970." In this legislation, the federal government declared its intention to:

. . . provide for the development of a national urban growth policy and to encourage the rational, orderly, efficient and economic growth, development and redevelopment of our States, metropolitan areas, cities, counties, towns, and communities in predominantly rural areas which demonstrate a special potential for accelerated growth; to encourage the prudent use and conservation of our national resources; and to encourage and support development which will assure our communities of adequate tax bases, community services, job opportunities and well-balanced neighborhoods in socially, economically and physically attractive living environments.

In addition, this Act stated that the "national urban growth policy," among other things, should ". . . help reverse trends of migration and physical growth which reinforce disparities among states, regions and cities . . ."?

However effective this legislation may be on the inner cities, this Act has arrived too late in history to cope with the population overflow of the cities and the resultant mass migration to the unexploited surrounding areas. For example, six of the ten largest metropolitan areas in the United States are located along the fragile ocean coasts.⁸ In 1960, approximately forty five million people lived in the 237 counties bordering the oceans. However, by 1970, the year this Act was passed, this total had grown to over sixty million people due in part to the overflow of the cities. Furthermore, when considering Detroit and Chicago over fifty per cent of the total U.S. population now lives within fifty miles of the seacoast.⁹ Obviously, planning efficient growth and resolving its accompanying problems required more than that offered in the "national urban growth policy."

Subsequently, to deal with the "growth" problem and with its concomitant impact on land use, the federal government has enacted several laws to affect efficient land usage--laws which operate in specific and dramatically different ways. However, this paper in discussing land use controls comments only on those comprehensive efforts directly affecting the coastal zone or indirectly affecting it through all-inclusive land management regulations. This narrow discussion should not indicate to the reader that specific land use proposals have not been introduced for impact on other physiographic regions.

The federal government responded to the growth problem along the seacoasts with the well-known "Coastal Zone Management Act of 1972." Although this Act has been passed within the last six months, it has not yet attained sufficient support to successfully deal with development in the coastal zone. With no funding authorized for the Office of Coastal Zone Management for fiscal year 1974¹⁰ and with dwindling support for the location of this office in the Department of Commerce,¹¹ it is the writer's opinion that the required support will not be forthcoming. It is also the writer's opinion that financial neglect and therefore, neglect of implementation of the "Coastal Zone Act" can be traced to several specifics. First, the land use problems in the coastal zone are extensive, as indicated by the population concentration in the shore region, and thereby, affect and are affected by activities occurring elsewhere. Second, the problems of the coastal zone are often problems shared with other areas. Third, the federal government is recognizing the need for a systems approach towards land resource management.¹² And fourth, the concept of the coastal zone, in particular its landward boundary, is nebulous. What is then needed is a more comprehensive land use program directed at the massive interrelated problems associated with population growth, with development and with land usage.

However, proponents of marine oriented activities and congressmen from states with a high degree of marine

orientation may question the need for involving the "unique" coastal zone with the problems of the far hinterland of the United States. This need for a systems approach towards land utilization and the related requirement for comprehensive land use legislation can be justified with the following:

1. The state's, and therefore, the local government's sphere of influence is land oriented.
2. Major pressures, conflicts and resource degradations are concentrated on the landward side.
3. Coastal land use problems are highly visible to the citizenry, whereas, marine resource uses are not so directly observable, albeit, spectacular oil spills do occur.¹³
4. The coastal zone, unique in its relation to the sea, is just a continuation of the interior land area.

Realizing these needs, realizing the commonality of all land utilization and realizing the need for a more comprehensive land use control act than that of the "Coastal Zone Act," the federal government has commenced action on comprehensive land use legislation.

Comprehensive Land Use Proposals by the Federal Government

As noted earlier, the federal government has enacted legislation that affect specific land use activities of state and local government. This interest in land use legislation continued through the ninety second Congress

where over 200 land use bills had been introduced--many of which concern the coastal zone. These include: public lands proposals, power plant siting proposals plus several general energy siting proposals. But the major interest and focus of discussion by Congress centered on the comprehensive land use proposals.¹⁴

In the ninety second Congress, the Senate, concerned over haphazard land use practices exhibited by local municipalities, passed the comprehensive "Land Use Policy and Planning Assistance Act" on September 19, 1972. This bill, also known as the Jackson Bill (Senate Bill 632), passed the Senate by the overwhelming majority of sixty to thirteen.¹⁵ Unfortunately, Congress adjourned before the bill could be successfully acted upon by the House of Representatives.

However, with the calling-to-order of the ninety third Congress, both the Administration and the Congress have acted promptly in introducing comprehensive land use legislation. Senator Jackson, Chairman of the Committee on Interior and Insular Affairs, reintroduced essentially the identical land use bill that had passed the Senate a few months previous. This bill is now designated Senate Bill 268.¹⁶ (See Appendix A for Senate Bill 268).

Following President Nixon's "Radio Message on the Environment," which revealed the intention of his administration to urge states to develop comprehensive land use

regulations "as their efforts of foremost importance in the area of environmental concern,"¹⁷ Senators Fannin and Jackson jointly introduced the Administration's land use bill, Senate Bill 924.¹⁸ This bill is identical in procedure and very similar in substance to the Jackson Bill. In addition, Senator Muskie introduced a very stringent comprehensive land management bill, Senate Bill 792, as an amendment to the "Federal Water Pollution Control Act of 1965."¹⁹ (See Appendices B and C for Senate Bills 924 and 792, respectively). Table one provides a comparison and brief summary of the pertinent aspects of these three comprehensive land use bills.

The philosophy of land resource management expressed by these bills can be concisely described with reference to the land use system proposed by the American Law Institute (ALI).²⁰ This code confirms and strengthens the roles of state and local governments in developing land use planning. On the one hand, it requires the state to increase its policy-making role and provide higher standards of performance for local governments; while on the other hand, it preserves the power to initially manage and control land development for the local governments. The ALI system declares that the primary responsibility for land development rests at the local level and that the state, possessor of overall land use responsibility, should reserve to itself only specified power to influence land use management.²¹

A Comparison of the Federal Land Use Proposals

Title	"Land Use Policy and Planning Assistance Act of 1973"	"Land Use Policy and Planning Assistance Act of 1973"	Amendment to FWPCA "Title VI--Environmental Protection Permits"
Bill Number	Senate Bill 268	Senate Bill 924	Senate Bill 792
Sponsor	Senator Jackson	Senators Fannin and Jackson	Senator Muskie
Administered by	Secretary of Interior	Secretary of Interior	Environmental Protection Agency
Scope:			
A. Territory Covered			
1. Jurisdictions	All land except federal lands which must be consistent with the state plan except in "overriding national interest"	Same as Senate Bill 268	All land except federal lands which are exempt if in "paramount interest" of the United States
2. Districts of Critical Concern	Broadly defined "areas of critical environmental concern" which include wetlands, beaches, dunes, estuaries plus other natural, historic, cultural and esthetic areas	Same as Senate Bill 268	None specified
B. Development Covered			
	Development of "key facilities," development of regional benefit, large-scale development and large-scale subdivisions	Same as Senate Bill 268	All further industrial, residential and commercial development
State Planning:			
A. Comprehensive Long-range Planning	Statewide land use <u>program</u> within three fiscal years, statewide land use <u>plan</u> within five fiscal years	Same as Senate Bill 268	Environmental Protection Permit Program approval prior to July 1, 1975

Table one

∞

B. Short-term Planning

None required

None required

None required

State Control:

A. Mechanism

(1) Implementation by local government subject to state administrative review with authority to disapprove
(2) Direct state land use planning and regulation

(1) State administrative review of local land use plans, regulations and implementation--with full powers to approve or disapprove
(2) Direct state land use planning and regulation

Overall state responsibility through issuance of "environmental protection permits," although permit granting responsibility may be delegated to local government

B. Administrative Agency

State Land Use Planning Agency established by the governor or by state law

Same as Senate Bill 268

None specified, although single state agency appears mandatory

C. Criteria of Review

Conformance with state land use plan--non-conformance subject to state police powers

Consistency with state land use plan--non-conformance subject to state authority

State establishes and promulgates policies for the "environmental protection permit program"

Regional Compacts

Interstate compacts authorized but does not affect allotment of funds

Same as Senate Bill 268

"Adequate provision" must be made to coordinate planning activities with planning activities of surrounding states

Local Control

Not affected but subject to the state land use plan

Same as Senate Bill 268

Not affected but subject to state permit policies

State/local Interface

A. Status of Local Plan:

1. Consideration of Local Plan in State Plan Mandatory

Mandatory

Mandatory

2. State Actions vs. Local Plans	Not affected	Not affected	Not affected
B. State Approval and Disapproval of Local Plans	Required if this method of state implementation is chosen	Same as Senate Bill 268	Local permit policies subject to state permit policies
C. State Requirements and Recommendations for Local Plans	Required if this method of state implementation is chosen	Same as Senate Bill 268	Local permit policies subject to state permit policies
D. Review of Local Grant Applications	State must review local application before federal government approves it for financial assistance	Same as Senate Bill 268	None
Funding:			
A. State	Forty million dollars for each of the first two fiscal years, thirty million dollars for each of the next three fiscal years Percentage rates determined by the Secretary of Interior on an <u>ad hoc</u> basis	Forty million dollars for each of the first two fiscal years, thirty million dollars for each of the next three fiscal years Percentage rates: two-third's federal one-third state	One hundred million dollars for each of the first three fiscal years Percentage rates: 75% federal, 25% state for establishment and development of an environmental permit program 50% federal, 50% state for maintenance of the environmental permit program
B. Local	None specified	None specified	One hundred million dollars for each of first three fiscal years for loss of tax revenue due to the implementation of the "environmental protection permit program"

A difference between this concept and traditional zoning, the key principle in the ALI system, is that the state is required to participate directly in developments having regional or statewide impact, that is, developments that affect areas of more than local concern. These developments include: those of regional benefit; the location of "key facilities," namely, highway systems and airports; any activities affecting "areas of critical environmental concern," and large-scale developments. In essence, the state enlists local action, declares the policy to be followed by the local municipalities and acts as the supervisor of land development without becoming excessively involved in specific activities.

A second difference between local control of land development and the antiquated practice of zoning, as expressed in the ALI code, is that local communities are authorized to participate in the developmental stages of land use planning and to prepare plans, in addition to, zoning ordinances. The plans authorized for preparation include: comprehensive land use plans, short-term capital improvement programs and land development reports. The communities which prepare these development plans are, subsequently, given additional powers to regulate their development, including the power to allow development that is not permitted generally under their zoning ordinances but which would be consistent with the plan. In this way, local governments which exhibit mature responsibility in

land use planning are assigned additional responsibility and authority.²² These activities, which take place under the auspices of the Statewide Planning Agency, result in a means of mitigating local government resentment of state authority and result in a method for balancing power between state and local governments. Finally, the assignment of authority to local municipalities must be made by the state since in the words of Secretary of Interior C. Rogers Morton, at the Senate Land Use Hearings, the states are being required to " . . . exercise responsibility over their available land" ²³ (emphasis added to indicate emphasis expressed by Secretary Morton).

As interest in comprehensive land resource management, as outlined above, gains momentum and as neglect of the recent "Coastal Zone Act" continues, it becomes apparent to the writer that coastal zone management cannot remain autonomous from general land use management. Also the proposed land use measures make specific reference to jurisdiction over "areas of critical environmental concern" in which the shore region is defined.²⁴ Furthermore, in an interview with an employee of the Department of Interior, it was learned that the Office of Coastal Zone Management, redesignated the Office of Coastal Environment will be absorbed by the Department of Interior or by the eventual Department of Natural Resources.²⁵ This occurrence, although not forecasted for the immediate future, is expected to take place within two and one-half years.

While the Office of Coastal Environment precariously maintains its short life, a new office, the Office of Regional Planning is coming into the limelight. Organized within the Department of Interior under the Assistant Secretary for Program Policy, this office is the predecessor of the Office of Land Use Policy Administration, the proposed administrator of the "national land use policy" as envisioned by Senate Bills 268 and 924.²⁶ The Office of Regional Planning, a most recent organization, has been authorized a budget of twenty million dollars for fiscal year 1974, even though, this office has not been established by law and even though, only ten million dollars would be appropriated by the Jackson and Administration Land Use Bills.²⁷

During the recent problems associated with the impoundment of federal funds, the Office of Regional Planning, unaffected by the impoundment, shared personnel and technical advice with the Office of Coastal Environment and assisted this office in developing the guidelines for the "Coastal Zone Act." In this way, Regional Planning is well acquainted with coastal zone activities.

Also the Office of Regional Planning is becoming more acquainted with coastal zone affairs through informal discussions of an "Interagency Lunch Bunch."²⁸ This group is, in effect, the forerunner of the National Advisory Board on Land Use Policy.²⁹ This group, composed of representatives from the various federal agencies plus representatives

from the Atomic Energy Commission and the Environmental Protection Agency, has been meeting periodically over the last eleven months to discuss the progress and status of comprehensive land use management. It was reported to this writer that one of the main topics of discussion has been the progress and future direction of coastal zone management.³⁰ No decisions have been made and no decisions are expected since this group is essentially acquainting its members with the various aspects of land management reform.³¹

One additional item should be noted. The Office of Regional Planning has been assigned the task to oversee all future power plant sitings, a responsibility with tremendous impact on the coastal zone. Considering this fact and considering the coastal areas are specified as "areas of critical environmental concern," a minimum of ninety five per cent of the coastal zone, depending on its definition, would come under the authority of the Secretary of Interior.³² From all of this, it appears that the Office of Regional Planning is being readied for the assignment of overall responsibility for land use regulations, an assignment with enormous potential for influencing coastal zone affairs.

With this discussion of a "national land use policy" and its ramifications, the writer is attempting to impress upon the reader the direction and current thinking in land use management and in coastal zone management on the national level. With this foundation, the remainder of this

paper will examine the current status of comprehensive land use planning in the State of Rhode Island and its impact on coastal zone management.

Efforts in Land Use Management by
the State of Rhode Island

The development of Rhode Island's comprehensive land use plans and regulations, which directly affect the coastal zone, has been very similar to the development of that on the federal level. On July 16, 1971, the Rhode Island General Assembly passed the "Coastal Resources Management Council Act" in order to protect the basic natural environment of the state's coastal resources.³³ Subsequently, the state has developed a statewide land use plan. Rather than comment on the already much-discussed "Coastal Resources Management Council Act," this paper will proceed directly to a discussion of comprehensive land use planning in Rhode Island.

Simultaneous with its creation of comprehensive coastal zone legislation, the State of Rhode Island has been continuing its development of a comprehensive land resource management plan and related policies. Urban sprawl and population growth are two of the factors, as on the national level, that instigated thinking in total land management in the state.³⁴ For example, it was recognized that only 23.8% of the total land area of Rhode Island was developed in any form of urban use in 1960; however, with continuance of present trends, it is projected that this

figure will increase to over 50% by 1990.³⁵ Consequently, it is projected that much of this development with its accompanying population growth will occur in formerly pristine areas including rural and sensitive coastal areas. In particular, it is expected that much development will occur along the south shore in the Towns of Charlestown, South Kingstown and Narragansett, where its impact on the environment would be most dramatic. Therefore, to combat these projected trends, a land use system of some description has become mandatory.

Population growth and urban sprawl are not the only factors that initiated the development of comprehensive land use planning in Rhode Island. In response to a survey conducted on the states' role in land management, Rhode Island said that three additional reasons were prime mechanisms generating a need for land resource management in the state. These reasons are: first, inadequate protection of water supplies; second, inadequate protection for estuarine and marine fisheries, and third, inadequate provision for future land needs for recreation.³⁶

To cope with these numerous problems, Rhode Island, in 1965, commenced development of a total land use plan. The result was the first preliminary land use plan, which was subsequently adopted by the State Planning Council in 1969. Following this initial draft, a sub-committee, appointed by the State Planning Council in 1971, reviewed the plan and made recommendations which have since been incor-

porated into the second and third revisions--with the third revision presently undergoing examination as the final State Development Policies and Land Use Plan.³⁷

With public hearings on the land use plan expected in June or September 1973, final approval of the land use policies and plan should take place no later than September 1973.³⁸

The state plan, a vanguard in state land use programs, is a guide for the future development of Rhode Island through the year 1990. The plan is an attempt to fill the vacuum between local zoning practices and efficient land resource management. As such, the plan allocates broad areas to certain general activities, reserves some areas from development during the time frame of the plan, and identifies areas which should not be intensively utilized or developed. The plan also delineates future settlement patterns in varying degrees of intensity. In addition, it specifies "areas for large-scale development," "areas of critical environmental concern," and areas for the construction of "key facilities"--all areas requiring state consideration in the pending federal legislation.³⁹

In performing its task of allocating areas to specific uses, the land use plan partitions the entire state land area into six broad categories. These include: residential, commercial, industrial, governmental and institutional, airports and open space. These categories are then combined and synthesized to form the land use plan.⁴⁰ The synthesis

of these categories is illustrated graphically by map one, the final synthesis of the plan. This illustration, although simple in appearance, is the end product of the consideration of a multiplicity of factors, which include economic and social factors plus the consideration of other elements which include: the availability of sewer and water services, anticipated transportation growth, the availability of major highway systems and the influence of physically limiting factors.⁴¹

The State Development Policies and Land Use Plan, expected to be approved within the next few months, is considered by this writer to be a well-organized, well-studied and thorough plan that has been developed with knowledge of the proposed national land use policies. It is in conformance with the expected national land use philosophy and it should serve as an excellent example of land use planning for other states.

Before discussing the implementation of the state plan, and therefore, a discussion of the mechanisms necessary to make the plan binding to state and local agencies alike, a brief comment on existing state laws that promote land use regulation in the coastal zone will be presented. This review is presented so that an understanding can be gained of the foundation on which the plan will operate.

Existing State Laws Exercising Land Use
Controls in the Coastal Zone

The State of Rhode Island is authorized to exercise land use regulation through an extreme yet direct form of control, namely, acquisition. Public acquisition may be either voluntary by purchase or compulsory by condemnation.⁴² Acquisition is also permissible by other means, specifically, by lease or gift. In the General Laws the basis for acquisition of land is found in Chapter 37-6. Here it is declared that the head of any state agency is authorized to acquire land or other property of public use if he considers it beneficial to the development and maintenance of any public facility.⁴³

Purchase, eminent domain and acquisition by gift are specifically authorized for a wide range of purposes including several that directly affect the coastal areas. Firstly, acquisition is permitted for flood control and navigation projects as authorized by Section 46-2-9 of the General Laws. Here the Department of Natural Resources is authorized to provide up to one-half of the funds provided by the federal government for flood control and navigation improvement projects.⁴⁴ Next, acquisition by purchase or condemnation is allowed for shore development undertakings as noted in Section 46-3-10 of the General Laws. This law also authorizes the state to pay up to two-thirds of the cost for acquiring land in order to control beach destruction.⁴⁵ Unfortunately, no funds have

been appropriated for implementation of this law.⁴⁶ Thirdly, the Department of Natural Resources is authorized to acquire any land bordering on tidewater in the state and the adjacent uplands for the construction of port facilities. This acquisition, by purchase, eminent domain or lease, is authorized by Section 46-5-1 of the General Laws.⁴⁷

The "Green Acres Acquisition Act," found in Chapter 32-4 of the General Laws, permits land acquisition in the coastal zone.⁴⁸ Through this program, the state is authorized to acquire land and to make grants to local government in order to obtain land for recreation and conservation purposes. "Land" may include water, rights-of-way, easements and other types of interest in land. Acquisition is permissible by eminent domain as well as by purchase or gift. However, as of October 1972, the state funds for implementation of this Act have been completely committed.⁴⁹

In addition to acquisition, land usage in Rhode Island can be influenced by regulation. For example, land, allotted for sewage disposal and water pollution control functions, can be regulated by the State Department of Health. The Health Department is empowered to determine air and water quality and general environmental health conditions.⁵⁰ In this way, the Department of Health exerts an indirect influence over land utilization by affecting air and water quality limits.

Several existing state laws directly regulate wetland and shoreline areas, a major goal of the state land use

plan. The "Coastal Wetlands Act of 1965" attempts to ". . . preserve the purity and integrity of the coastal wetlands" through regulation and police power.⁵¹ This Act authorizes the Department of Natural Resources to prepare written orders designating protected salt marshes and their contiguous uplands, up to fifty yards inland, and designating the uses permitted in these marshes. These orders take precedence over any local zoning ordinance or other regulation; in this manner, this law amounts to a form of state zoning. Owners of these salt marshes are protected by this law since they may claim compensation for compliance with the state orders.⁵² However, compensation funds have not been appropriated for this Act and the alternate method of compensation, the "Green Acres Fund," has expired.⁵³ Consequently, this Act appears to be of no immediate impact.

The "Intertidal Salt Marsh Act of 1965" also limits unplanned use of coastal marshland.⁵⁴ This Act prohibits the dumping of dirt, rubbish, mud or any type of fill in a salt marsh without initially obtaining a permit from the Department of Natural Resources. Unfortunately, this law applies only to salt marshes.⁵⁵ This restriction, coupled with the fact that no compensation funds have been appropriated for the "Coastal Wetlands Act," leaves much fragile coastal wetlands vulnerable to development, and therefore, to irreversible change.

The "Fresh Water Wetlands Act of 1971" also provides

a qualified degree of regulation for river banks, flood plains, swamps, marshes and other fresh water wetlands.⁵⁶ Regulation is performed by permits issued by the Director of the Department of Natural Resources. This Act requires a permit from the Department of Natural Resources before any change is made in the character of any fresh water wetland.⁵⁷ This law is limited in that it does not pertain to the 419 miles of salt water shoreline in Rhode Island.

Finally, the well-known "Coastal Resources Management Council Act," as mentioned earlier, directly influences land usage in the coastal areas.⁵⁸ This Act establishes and provides power to the Coastal Resources Management Council (CRMC) to protect the state's coastal waters and to ameliorate destructive threats to shoreline areas up to the high water mark. Additionally, the Council exerts authority over other uses and activities upland of the high water mark.⁵⁹ The powers of the CRMC are considerably constrained, in that its coverage is limited to specific activities. Thereby, the Council does not possess any mechanism to regulate the proliferation of sub-division developments, private homes and industrial plants excluding petroleum and chemical facilities.⁶⁰ In spite of these constraints, the Council still retains sufficient authority to affect efficient land use in the coastal zone. However, well-publicized political and social problems have plagued the CRMC and have contributed to an as yet unworkable organization.⁶¹

Visibly, the present methods for protecting the coastal

environment from destructive land usage is uncertain at best. Acquisition is not reliable due to the expense involved and due to the difficulty in procuring sufficient funding. Regulation is constrained to very specific areas and provides no protection for dry coastal land. Additionally, protection for the salt water wetlands is not dependable. And control exerted by the Council has not been timely nor dependable as viewed from past Council practices. Consequently, these doubtful mechanisms lend credence to the belief that a more comprehensive form of land use control is mandatory for use in the state's coastal areas.

Mechanisms Required for Effective Land Use
Control in Rhode Island's Coastal Zone

Adequate land use regulation, in the opinion of the writer, rests with the potential success of the state land use plan. This plan would affect the state's coastal zone, in addition to, the total land area of Rhode Island. However, the State Development Policies and Land Use Plan, when finally approved, will only be a well-documented policy statement of the state with no legal support other than the adherence of certain state agencies to the State Guide Plan, of which the land use plan will be the "core" element.⁶²

Therefore, action, namely legal action, to implement and complement the land use plan must be taken by the state's general assembly. Legal enforcement of the plan can be divided into two basic concepts: implementation for short-

term effect and implementation for long-range consequence.

Among the short-term steps required for implementing the plan, legislation requiring all state agencies to abide by the plan should be enacted.⁶³ Such legislation would greatly enhance coordination efforts among the state agencies while giving a quasi-legal status to the plan. In an interview with Daniel Varin, Chief of the Statewide Planning Agency, legislation with this intent is expected to be introduced in the coming session of the general assembly.⁶⁴

For additional short-term implementation, the "Zoning Enabling Act," which authorizes local government the responsibility and authority to zone their land, should be amended.⁶⁵ Legislation to this effect was introduced in the general assembly in the past three legislative sessions. This proposed legislation would expand the local zoning ordinances so that, among other things, they would:

Promote the conservation of open space, valuable natural resources and ecological features and prevent urban sprawl and wasteful land development practices;
 Promote the development of neighborhoods and new communities on a development basis relating modern environmental design standards to the type of development and natural site features,
 . . . Provide for the implementation of land use and development policies, goals and patterns contained in the city or town comprehensive plan and in any State Guide Plan.⁶⁶

To achieve these purposes, the amendment is, essentially, making the provision for residential cluster development and incorporating cluster zoning in the present law.

The consequent impact on the coastal zone of such an amendment, is that, it would encourage efficient and attractive urban growth and would provide protection for the environment due to the curtailment of the carcinogenic effects of urban sprawl. Also this amendment would provide for intelligent land management practices since all future zoning would conform to the land use plan.

Also "shoreline setback" legislation should be enacted to protect all of the state's coast line. This law could take a form similar to that of Hawaii where a Land Use Commission is authorized to establish setback areas between twenty and forty feet from the upper reaches of the effects of waves excluding storm and tide waves.⁶⁷ However, Rhode Island need not require such a width for its entire coast line but should consider a setback area of variable width. This flexible setback concept could provide for a wide setback along conservation, recreation and open space areas; while it could provide for a narrow setback along urban coast line.

This narrower width could be a modification of the "nine and three" rule proposed in Australia and now recommended for implementation in the State of Florida. This rule prohibits the construction of any structure that would cast a shadow on the adjacent coastal waters between 9:00 A.M. and 3:00 P.M.⁶⁸ Although this tool probably cannot be directly applied to Rhode Island's situation, a modification should be considered for use along the state's urban

coast line.

One final short-term measure, a non-legal one, must be taken. Coastal zone guidelines, which are absent from the State Development Policies and Land Use Plan, must be developed in the immediate future. Only when these are developed and incorporated into the land use plan, can coastal communities derive maximum benefit from the state plan. It was learned that efforts to create such guidelines are expected to begin in June 1973.⁶⁹

Although the above legislative proposals are directed at requiring conformance with the state plan, these measures should only be considered interim measures and not ends in themselves. The eventual goal to be strived for should be the enactment of a comprehensive state land use law.

A state land use law, a long-term objective in land resource management in Rhode Island, would take a form of statewide zoning.⁷⁰ Since statewide zoning strikes at the very heart of local government autonomy, a state land use law must be developed with the participation and concurrence of the local communities. Consequently, state action of this type should require a time frame of approximately ten years or longer.⁷¹

The Statewide Planning Program is already contemplating the basic outline for legislation regulating the total land area of Rhode Island. The statewide zoning envisioned would partition the state's total land area

into three or four very broad categories which would include: rural areas, urban areas, conservation zones and "areas of critical environmental concern."⁷² Furthermore, these categories, broader than those described in the land use plan, would be determined on the basis of existing facilities, namely, public water and sewer services, transportation services and major "key facilities."⁷³ In addition, this law would be written with consideration of local government authority.

It appears to the writer that the land use program in Rhode Island is being guided towards a role similar to that of the Hawaii "Land Use Law of 1961," as amended.⁷⁴ This law establishes four different land use districts into which the total land area of Hawaii is divided. The divisions include: urban, rural, conservation and agricultural districts. This law empowered the Hawaii Land Use Commission to draw up the boundaries of each of the districts and also authorized the local governments to further zone the land within each district and to enact stricter limitations if deemed necessary.

The local municipalities, awarded as much authority as possible, are restrained in exercising complete authority in three specific ways. Whereas rural and agricultural areas could be interchangeably zoned by the local governments, no areas could be zoned for urban use outside of an urban district. Second, all local zoning must be compatible with the provisions of the land use law. And third,

the usage of lands in conservation districts is to be regulated directly by the Hawaii Department of Land and Natural Resources.⁷⁵

This method of regulation, statewide zoning, may not be practicable for states with large land areas. However, a review, conducted in 1969, of the Hawaii "Land Use Law" indicates that statewide zoning is viable in Hawaii, a state small in land area with a long coast line. In this review, it was found that the law had successfully curtailed urban sprawl. Although the population growth on Oahu, the island subject to the greatest economic pressures, had grown by 153,000 persons during the period 1961-1968, only 1,616 acres were added to urban districts. Since a standard of about nine acres per one hundred people had been set for urban districts in earlier land use planning studies, approximately 13,770 acres would have been required to accommodate the population growth. Also most of the urban growth occurred in lands set aside for future urban development.⁷⁶

Similarly, it was found that the land use control system had been effective in preserving prime agricultural soil. Although proposals had been received to change 2,648.8 acres of agricultural land to urban use, only 284.8 acres had been approved. Additionally, it is impossible to estimate how many other change proposals were deterred from submission due to the existence of the "Land Use Law."⁷⁷

The Hawaii Law, however, is not without flaws. Reg-

ulation of land in the conservation districts has not proven adequate, even though, these areas are directly controlled by the state. The State Department of Land and Natural Resources had approved seventy six out of eighty two special-use applications for the conservation districts; thereby, making the state's administration practices somewhat suspect.⁷⁸ Specifically, permits were granted for resorts, government buildings and related residences in "general use" conservation districts, which could lead to urban development. Also transmission facilities, which destroy scenic vistas, were permitted in "reserve watershed" conservation districts. Finally, administration of the conservation areas had no input from the local governments nor provision for public hearings, thereby, leading to further questioning of state's administrative practices.⁷⁹

It is the writer's belief, that a law similar to the Hawaii "Land Use Law," can be successfully employed in the State of Rhode Island. Initially, the geography of Rhode Island is similar to that of Hawaii to the extent that Rhode Island has a very small land area, 1,057 square miles, and a long salt water coast line, over 419 miles in length.⁸⁰ Next, by recognizing the defects inherent in the Hawaii Law, Rhode Island should be able to create an adequate regulatory system. Specifically, by enlisting local government participation in the administration of conservation areas or "areas of critical environmental concern" whichever comes under direct state authority,

Rhode Island would be correcting a known defect and would be balancing the delicate power struggle between state and local government. Also by requiring local communities to partake in the planning as well as the implementing phases of a land use law, the state would be satisfying two basic premises expressed in the pending federal legislation. First, the state "process shall include . . . participation by . . . local governments in the statewide planning process" ⁸¹ And second, the " . . . selection of methods of implementation . . . shall be made so as to encourage the employment of land use controls by the local governments." ⁸²

Not everyone agrees that a form of statewide zoning is the most desirable method for land resource management. Fred P. Bosselman, a partner in the Law Firm of Ross, Hardies, O'Keefe, Babcock and Parsons of Chicago, speaking at the Annual Meeting of the Council of State Planning Agencies in January 1972, urged states not to resort to statewide zoning. His idea of non-advocacy of statewide zoning is founded on three specifics. First, he states that the time and the expense necessary for developing a statewide zoning plan would require enormous amounts of effort and money. Second, Mr. Bosselman declares that states do not and can not make better decisions on zoning than the local governments. Third, he states that any zoning system which attempts to draw tight boundaries around certain areas is likely to have serious impact on the price of land at the zone

boundaries.⁸³

As noted in his speech, Mr. Bosselman is apparently urging a continuation of the piecemeal practices performed by local government. By mentioning the required expense, he obviously does not consider the priceless value of land, which if developed, can never be restored to its natural state. In addition, he is resigning himself to the haphazard zoning practices of local government when he declares that state government can do no better. Yet Hawaii is evidence that statewide zoning can have a beneficial impact. Finally, by saying that land prices along zone boundaries will be greatly affected, he gives no consideration to "transitional zones" nor consideration to property tax changes.

Summarizing, the writer considers it mandatory to discontinue past land use control methods and to replace these methods with a more comprehensive system, whereby, the local governments must conform to a broad form of zoning. This must be done--for land once it is altered from its pristine state can never be returned.

A second long-term objective should be acted upon. This objective is to reorganize the Coastal Resources Management Council in a fashion similar to that expected for the Federal Office of Coastal Environment. That is, the Council should be organized within the State Department of Natural Resources with competent experts in coastal zone affairs serving as its members. This change,

in addition to conforming to the expected federal land use policy, would also enhance state inter-agency coordination efforts.⁸⁴

Any changes, dramatic as those just mentioned, cannot be expected to occur without local government consent. But will local government permit any form of statewide zoning? Will local government concede any of its land regulatory authority to the state government? Knowing it cannot adequately deal with land use problems, will local government allow state intervention? Possible answers to these questions and the attitudes of the local community towards comprehensive land use management will now be explored.

Attitudes and Comments on Comprehensive
Land Use Controls by Local Government

Several cities and towns within the State of Rhode Island have recently completed or are currently in the process of amending their zoning ordinances. These local communities include: Westerly, Warwick, South Kingstown and Narragansett. The factors instituting new interest in zoning ordinances vary. However, the predominant reasons for amending these zoning laws are: to control development, to change the laws to reflect population increases and to preserve open space for conservation and passive recreation. In addition, Mr. Jay James, Chairman of the Citizens' Zoning Committee of the Town of Narragansett, stated that the total re-examination of zoning in Narragansett is

the town's " . . . prime move on coastal protection. "⁸⁵ Since the Town of Narragansett is directing much of its land use concern towards the shore areas, this town will be examined for its attitude towards land use regulations and the coastal zone.

Narragansett is presently in the process of amending its zoning ordinances to forbid multiple-family dwellings, that is, apartment houses, to be built within 1,500 feet of any coast line, salt or fresh water.⁸⁶ This proposed amendment, drafted by the Citizens' Zoning Committee, is the town's reaction to the vulnerability of its shoreline areas to commercial development.

Beginning in early 1972, developers have been attempting to build an apartment complex east of Ocean Road along the eastern coast of Narragansett.⁸⁷ More recently, Shoreline Developers, Inc. has planned to construct a 132 unit apartment complex east of Fort Nathanael Greene. Also Ocean State Improvement Company has planned to build a restaurant east of Ocean Road opposite Walcott Avenue.⁸⁸ Because the proposed construction sites are zoned for commercial use, the town is helpless in permanently halting construction unless the proposed amendment, prohibiting commercial development within 1,500 feet of the coast line, is quickly approved.⁸⁹ Also since the proposed building areas do not affect marshlands or any form of wetlands, the state is unable to prevent construction, albeit, the projects must undergo perusal by the state's Coastal Resources

Management Council.

In reference to this situation, the writer asked Mr. Gaetano Moretti, Building Inspector for the Town of Narragansett, about the town's attitude towards state assistance. Mr. Moretti, in discussing the situation, said that Narragansett has no controls to prevent development along its coast line, in particular, around Scarborough Beach and around the areas proposed for construction sites. Mr. Moretti stated that although Narragansett lacks appropriate local regulations, it does not want "state interference" but it would accept "state assistance," that is, state financial support.⁹⁰

Obviously, this statement is a paradox. It reflects the jurisdictional problems existing between state and local governments regarding land use control. Also the situation in Narragansett is the epitome of local government hostility towards state intervention, whereby, the local community will not accept state jurisdiction, even though, the local government cannot prevent irreversible damage to its own land. Needless to say, any thought of statewide zoning will not be kindly looked upon by the Town of Narragansett.⁹¹

This fear of state intervention by Narragansett has resulted in a thoughtless and haphazard housing construction spree. Narragansett residents, afraid of losing their building rights to the authority of the state, have been selling their land to land developers or have been building houses on their property, even though, they had no intention

of building at this time.⁹² This is quite similar to the situation on Green Hill Beach where a dramatic increase in housing construction has occurred within the last year for fear of state intervention. This increase has resulted in an increase in housing construction from three units to seventeen units within the last year.⁹³

Short-term emergency measures by the Town of Narragansett have, up to the present time, halted construction of the proposed commercial enterprises. These emergency measures are in the form of emergency zoning ordinances which are effective for sixty or ninety days.⁹⁴ However, these emergency laws, consistently being renewed, are open to legal questioning and would probably be overruled by the courts.⁹⁵ Clearly, state action, although not desired by the local community, is necessary to ensure coast line protection.

Simply stated, the State of Rhode Island must intervene as soon as legally possible. Housing construction sprees are occurring to the dislike of all parties concerned; private owners, the local community and the state government. Only the state government by initially, enacting interim land use measures and secondly, enacting a desired form of statewide zoning in the distant future, can an objective, not an emotional, form of regulation be placed on Rhode Island's valuable land resources.

Summary

The federal government is in the process of shifting its interest from specific land use controls to a more comprehensive land use system. This system, similarly described by the Jackson, Administration and Muskie Land Use Bills, focuses land use responsibility upon the state government but requires local participation in the planning and implementing stages.

Relatedly, the federal government is neglecting the Office of Coastal Environment and is planning to reorganize this office within the Department of Interior or within the expected Department of Natural Resources.

The State of Rhode Island is following a trend similar to that of the national government. With creation of the Coastal Resources Management Council, Rhode Island initiated comprehensive coastal zone land regulation. However, due to numerous problems afflicting the Council, its work has been largely unsuccessful. This situation has resulted in inefficient land use management and in an unreliable and undependable Council. Simultaneously, the state, through the Statewide Planning Program, has created the State Development Policies and Land Use Plan. Consequently, a shift towards comprehensive land use management is now underway in Rhode Island.

However, a power struggle between state and local government is sure to follow regarding land use reform--

especially as reflected by the hostility of the Town of Narragansett. Here no form of "state interference" would be tolerated.

But radical land use reform is mandatory in order to protect the state's total land area, in general, and the state's coastal zone, in specific. Therefore, to bring about an orderly change-over to comprehensive land use management, several mechanisms would be helpful. These mechanisms include short-term and long-range objectives. They should include the following:

1. Amending the "Zoning Enabling Act" in order to require local community conformance to the state land use plan.
2. Passing legislation requiring all state agencies to adhere to the land use plan.
3. Establishing variable "shoreline setback" areas.
4. Passing a Rhode Island "Land Use Law," similar in procedure and content to the Hawaii "Land Use Law."
5. Re-organizing the Coastal Resources Management Council in a manner similar to that planned for the Federal Office of Coastal Environment, that is, the CRMC should be organized within the State Department of Natural Resources with competent experts on coastal zone affairs serving as its members.

When these recommended objectives are accomplished, Rhode Island, in the opinion of the writer, will surely possess a program that will protect its coastal region, and therefore,

its economy and social well-being.

Supplement

On April 27, 1973, the writer talked with Mr. Stephen Quarls, legal counsel to the Committee on Interior and Insular Affairs. It was learned at that time that the Jackson Land Use Bill, the federal land use bill with the greatest level of support, was undergoing "mark up." Specifically, all "direct reference" to coastal physiographic features are being deleted; however, the land use bill is still intended to cover all land use areas including the coastal zone.⁹⁶

According to Mr. Quarls, the Jackson Bill is being re-written this way with the intention of having the "Coastal Zone Management Act of 1972" and the proposed land use act complement one another.⁹⁷ Under this circumstance, if a state does not qualify for appropriated land use funds then it automatically does not qualify for coastal zone management funds and vice versa. Consequently, both pieces of legislation would produce greater compliance when operating together since a greater amount of money would be offered to or would be withheld from the state governments.

If this altered land use bill should come to pass then the recommendations made in this paper, although made for other reasons, would still be valid. First, a state land use law, not affected by the proposed federal legislation, would still be beneficial to the state for protection of its land resources. Furthermore, there would exist a greater need for

such a law in order to insure compliance of the local communities due to the larger amounts of money involved. Second, the re-organization of the CRMC should still be brought about since the Department of Interior or the proposed Department of Natural Resources will probably be responsible for administering both the "national land use policy" and the "Coastal Zone Management Act."

Therefore, although developed from other circumstances, the recommendations made in this paper will still be applicable under the new proposed legislation.

Notes

¹Fred Bosselman and David Callies, The Quiet Revolution in Land Use Control, Summary report prepared for the Council on Environmental Quality, (Washington, D.C.: U.S. Government Printing Office, December 15, 1971), p. 1.

²Ibid., p. 2.

³American Society of Planning Officials, Problems of Zoning and Land-Use Regulation, Report prepared for consideration by the National Commission on Urban Problems, Research Report II, (Washington, D.C.: U.S. Government Printing Office, 1968), p. 9.

⁴Ibid.

⁵Susan Morrisson, private interview held at the State-wide Planning Offices, Providence, Rhode Island, December 18, 1972.

⁶Urban Growth and New Community Development Act, (Title VII--Housing and Urban Development Act of 1970), Statutes at Large LXXXIV, sec. 609 (1970).

⁷Ibid.

⁸Statistics compiled from United States Census Reports in general, (1970).

⁹Conrad Taluber, "Trends of the 1960's," Science, Vol. 176, No. 4076, May 19, 1972, p. 775.

¹⁰Editorial, "Federal Ocean Market," Ocean Science News, January 31, 1973, p. 6.

¹¹Stephen Quarls, legal counsel to the Senate Committee on Interior and Insular Affairs, private telephone conversation, January 22, 1973.

¹²Ibid.

¹³Robert H. Twiss and Jens C. Sorenson, "Methods for Environmental Planning of the California Coastline," Tools for Coastal Zone Management, Proceedings of the Marine Technology Society Conference of February 1972, (Washington, D.C.: Marine Technology Society, 1972), pp. 71-72.

¹⁴Quarls.

¹⁵U.S. Congress, Senate, Passage of the "Land Use Policy and Planning Assistance Act of 1972," Senate Bill 632, 92nd Cong., 2nd sess., September 19, 1972, Congressional Record, p. S15279.

¹⁶U.S. Congress, Senate, A Bill to Establish a National Land Use Policy, S.B. 268, 93rd Cong., 1st sess., January 9, 1973. (Hereafter referred to as Senate Bill 268).

¹⁷U.S. President, Radio Message, "Radio Message on the Environment," C.B.S. broadcast, February 14, 1973.

¹⁸U.S. Congress, Senate, A Bill to Establish a National Policy Encouraging States to Develop and Implement Land Use Programs, S.B. 924, 93rd Cong., 1st sess., February 20, 1973. (Hereafter referred to as Senate Bill 924).

¹⁹U.S. Congress, Senate, A Bill to Amend the Federal Water Pollution Control Act, and for Other Purposes, S.B. 792, 93rd Cong., 1st sess., February 7, 1973.

²⁰Richard H. Slavin, "Components of National and State Land Use Policy," State Planning Issues '72, (Lexington, Kentucky: Council of State Planning Agencies and the Council of State Governments, March 1972), pp. 4-5

²¹Ibid., p. 5.

²²Ibid., p. 4.

²³U.S. Congress, Senate, Committee on Interior and Insular Affairs, Jackson Land Use Bill, Hearings, before the full Committee on Interior and Insular Affairs, Senate, on S.B. 268, 93rd Cong., 1st sess., February 6, 1973.

²⁴Senate Bill 268 and Senate Bill 924, in general.

²⁵Employee, Office of Regional Planning, Department of Interior, private telephone conversation held on several dates in January and February 1973. (Hereafter referred to as "Anonymous").

²⁶Senate Bill 268 and Senate Bill 924, in general.

²⁷Ibid., sec. 511 and sec. 409, respectively.

²⁸Anonymous.

²⁹Senate Bill 268 and Senate Bill 924, sec. 203 and sec. 301, respectively.

³⁰Anonymous.

³¹Ibid.

³²Robert Knecht, Administrator of the Office of Coastal Environment, lecture before the Marine Affairs Seminar, February 20, 1973.

³³Rhode Island, An Act Creating a Coastal Resources Management Council and Making an Appropriation Therefor, Rhode Island General Laws, Chapter 279-1971.

³⁴Rhode Island Statewide Planning Program, State Development Policies and Land Use Plan, 3rd draft, unpublished state land use plan, currently pending final approval, January 1973, in general. (Hereafter referred to as Land Use Plan).

³⁵Ibid., p. 1.

³⁶Richard G. Rubino and William R. Wagner, The State's Role in Land Resource Management, A Supplement, (Lexington, Kentucky: Council of State Governments, February 1972), pp. 3 and 22.

³⁷Morrisson.

³⁸Daniel W. Varin, Chief Rhode Island Statewide Planning Program, private interview conducted at the Statewide Planning Offices, Providence, R.I., March 12, 1973.

³⁹Land Use Plan, in general.

⁴⁰Ibid., p. 89.

⁴¹Ibid., in general.

⁴²Malcolm J. Grant, "Tools at Hand: Controlling Use of the Land Resource," Research paper written in conjunction with the Rhode Island Coastal Resources Center, 1972, unpublished, p. 1.

⁴³Land Use Plan, p. 277.

⁴⁴New England Conservation Law Foundation, A Summary of the Natural Resources Laws of the State of Rhode Island, Report prepared for the Audobon Society of Rhode Island and the Joint Committee on Legislative Affairs, Rhode Island General Assembly, (Providence, R.I.: Statewide Planning Program, December 1972), p. 40. (Hereafter referred to as Natural Resources Laws).

⁴⁵Ibid., p. 43.

⁴⁶Land Use Plan, p. 237.

⁴⁷Natural Resources Laws, pp. 47-49.

⁴⁸Land Use Plan, p. 230.

⁴⁹Ibid.

⁵⁰Ibid., p. 231.

⁵¹Rhode Island Statewide Planning Program, Supplement to--A Summary of the Natural Resources Laws of the State of Rhode Island--Wetlands, (Providence, R.I.: Statewide Planning Program, January 1973), p. 1.

⁵²Ibid., p. 2.

⁵³Ibid.

⁵⁴Ibid., p. 4.

⁵⁵Ibid.

⁵⁶Ibid., pp. 2-3.

⁵⁷Ibid., p. 3.

⁵⁸An Act Creating a Coastal Resources Council, sec. 46-23-6(A).

⁵⁹Ibid., sec. 46-23-6(B).

⁶⁰Earl H. Bradley, Jr. and John M. Armstrong, A Description and Analysis of Coastal Zone and Shoreland Management Programs in the United States, Sea Grant Technical Report No. 20, MICHU--SG-72-204, (March 1972), p. 239.

⁶¹Malcolm J. Grant, "Organization and Coastal Management in Rhode Island: Modern History and Present Problems," (unpublished paper, revised October 1972), in general.

⁶²Morrisson.

⁶³Varin.

⁶⁴Ibid.

⁶⁵Land Use Plan, p. 258.

⁶⁶Ibid., pp. 260-61.

⁶⁷Bradley and Armstrong, p. 239.

⁶⁸"Let the Sunshine In," Sea Frontiers, Vol. XIX, No. 1, (January/February 1973), p. 53.

⁶⁹Bradford Southworth, Supervising Planner, Statewide Planning Program, private interview conducted at the Statewide Planning Offices, Providence, R.I., December 23, 1972.

⁷⁰Varin.

⁷¹Ibid.

⁷²Morrisson.

⁷³Ibid.

⁷⁴Bradley and Armstrong, p. G-1.

⁷⁵Ibid., p. 213.

⁷⁶Ibid., p. 219.

⁷⁷Ibid.

⁷⁸Ibid., p. 223.

⁷⁹Ibid., p. 224.

⁸⁰Report of the Governor's Committee on the Coastal Zone, Calvin B. Dunwoody, chairman, (Providence, R.I.: State-wide Planning Program), March 1970, p. 1.

⁸¹Senate Bill 268, sec. 302(a)(13).

⁸²Ibid., sec. 303(b).

⁸³Fred P. Bosselman, "Components of National and State Land Use Policy," State Planning Issues '72, (Lexington, Kentucky: Council of State Planning Agencies and the Council of State Governments, March 1972), pp. 10-11.

⁸⁴An Act Creating a Coastal Resources Council, sec. 46-23-6(A).

⁸⁵Jay James, Chairman of Narragansett's Citizens' Zoning Committee, private telephone conversation, March 5, 1973.

⁸⁶Ibid.

⁸⁷Ibid.

⁸⁸Editorial, "Seaside Zoning," Narragansett Times, February 8, 1973, p. 18.

⁸⁹James.

⁹⁰Gaetano Moretti, Building Inspector for the Town of Narragansett, private interview conducted at the Narragansett Town Hall, February 26, 1973.

⁹¹Ibid.

⁹²Ibid.

⁹³Joseph W. Frisella, Member of the Citizens' Committee on Barrier Beaches for the Town of South Kingstown, private interview conducted at Mr. Frisella's office, March 5, 1973.

⁹⁴James.

⁹⁵Ibid.

⁹⁶Quarls.

⁹⁷Quarls.

Sources ConsultedArticles

Grant, Malcolm J. "Organization and Coastal Management in Rhode Island: Modern History and Present Problems." Unpublished research paper, revised October 1972.

Grant, Malcolm J. "Tools at Hand: Controlling Use of Land Resources." Unpublished research paper, written in conjunction with the Rhode Island Coastal Resources Center, 1972.

"Let the Sunshine In." Sea Frontiers. Vol XIX, No. 1, January/February 1973.

Narragansett Times. Editorial, "Seaside Zoning." Vol. CIX, No. 44, February 8, 1973.

Ocean Science News. Editorial, "Federal Ocean Market." January 31, 1973.

Taluber, Conrad. "Trends of the 1960's." Science. Vol. CLXXVI, No. 4076, May 19, 1972.

Congressional Documents

U.S. Congress, Senate. A Bill to Amend the Federal Water Pollution Control Act, and for Other Purposes. S.B. 792, 93rd Cong., 1st sess., 1973.

U.S. Congress, Senate. A Bill to Establish a National Land Use Policy. S.B. 268, 93rd Cong., 1st sess., 1973.

U.S. Congress, Senate. A Bill to Establish a National Policy Encouraging States to Develop and Implement Land Use Programs. S.B. 924, 93rd Cong., 1st sess., 1973.

U.S. Congress, Senate. Passage of the "Land Use Policy and Planning Assistance Act of 1972," S.B. 632, 92nd Cong., 2nd sess., September 19, 1972. Congressional Record, S15279.

Interviews

Employee. Office of Regional Planning, Department of Interior. (Employee desires anonymity). Telephone conversations, January/February 1973.

Frisella, Joseph W. Member of the Citizens' Committee on Barrier Beaches for the Town of South Kingstown. Pri-

vate interview conducted at Mr. Frisella's office, March 5, 1973.

George, William. City Planner for the City of Warwick. Interview conducted at the City Planning Offices, Warwick, R.I. February 23, 1973.

James, Jay. Chairman of the Town of Narragansett Citizens' Zoning Committee. Telephone conversation, March 5, 1973.

Moretti, Gaetano. Building Inspector for the Town of Narragansett. Private interview conducted at the Narragansett Town Hall. February 26, 1973.

Morrisson, Susan. Senior Planner, Statewide Planning Program. Private interview conducted at the Statewide Planning Offices. December 18, 1973.

Quarls, Stephen. Legal counsel to the Senate Committee on Interior and Insular Affairs. Telephone conversations. January 22, 1973 and April 27, 1973.

Southworth, Bradford. Supervising Planner, Statewide Planning Program. Private interview conducted at the Statewide Planning Offices. December 23, 1972.

Varin, Daniel W. Chief Rhode Island Statewide Planning Program. Private interview conducted at the Statewide Planning Offices. March 12, 1973.

Legal Documents

Rhode Island. An Act Creating a Coastal Resources Management Council and Making an Appropriation Therefor. General Laws, Chapter 279-1971.

Urban Growth and New Community Development Act. Title VII--Housing and Urban Development Act of 1970. Statutes at Large LXXXIV, sec. 609, 1970.

Proceedings, Hearings and Presentations

Bosselman, Fred P. "Components of National and State Land Use Policy." Proceedings of the Annual Meeting of State Planning Agencies in Washington, D.C., January 1972, and recorded in State Planning Issues '72. Lexington, Kentucky: Council of State Planning Agencies and the Council of State Governments. March 1972.

Knecht, Robert. Administrator of the Office of Coastal Environment. Presentation delivered before the

Master of Marine Affairs Seminar, the University of Rhode Island. February 20, 1973.

Slavin, Richard H. "Components of National and State Land Use Policy." Proceedings of the Annual Meeting of State Planning Agencies in Washington, D.C., January 1972, and recorded in State Planning Issues '72. Lexington, Kentucky: Council of State Planning Agencies and the Council of State Governments. March 1972.

Twiss, Robert H. and Sorenson, Jens C. "Methods for Environmental Planning of the California Coastline." Proceedings of the Marine Technology Society Conference, February 14-15, 1972. Recorded in Tools for Coastal Zone Management. Washington, D.C.: Marine Technology Society. 1972.

U.S. Congress, Senate. Committee on Interior and Insular Affairs. Jackson Land Use Bill. Hearings before the full Committee on Interior and Insular Affairs, on S.B. 268, 93rd Cong., 1st sess., 1973.

Radio Broadcasts

U.S. President. Radio Message. "Radio Message on the Environment." C.B.S. broadcast, Richard M. Nixon. February 14, 1973.

Reports

American Society of Planning Officials. Problems of Zoning and Land-Use Regulation. Report prepared for consideration by the National Commission on Urban Problems, Washington, D.C.: U.S. Government Printing Office. 1968.

Bosselman, Fred P. and Callies, David. The Quiet Revolution in Land Use Control. Summary report prepared for the Council on Environmental Quality, Washington, D.C.: U.S. Government Printing Office, 1971.

Bradley, Earl H., Jr. and Armstrong, John M. A Description and Analysis of Coastal Zone and Shoreland Management Programs in the United States. Sea Grant Technical Report No. 20, MICHU-SG-72-204. March 1972.

New England Conservation Law Foundation. A Summary of the Natural Resources Laws of the State of Rhode Island. Report prepared for the Audobon Society of Rhode Island and the Joint Committee on Legislative Affairs, Rhode

Island General Assembly. Providence, R.I.: Statewide Planning Program. December 1972.

Rhode Island Statewide Planning Program. State Development Policies and Land Use Plan. Unpublished 3rd draft of the Rhode Island land use plan, currently pending final approval. January 1973.

Rhode Island Statewide Planning Program. Supplement to: A Summary of the Natural Resources Laws of the State of Rhode Island--Wetlands. Providence, R.I.: Statewide Planning Program. January 1973.

Report of the Governor's Committee on the Coastal Zone. Calvin B. Dunwoody, chairman. Providence, R.I.: Statewide Planning Program. March 1970.

Rubino, Richard G. and Wagner, William R. The State's Role in Land Resource Management, A Supplement. Lexington, Kentucky: Council of State Governments. February 1972.