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WORKING PAPER NO. 9

# LAND USE CONTROL LEGISLATION IN THE UNITED STATES -- A SURVEY & SYNTHESIS

by

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# FOREWORD

This study is one of a series commissioned by the Economic Council's Regulation Reference which deals with various aspects of land use and building codes regulation. These studies do not cover the whole field of land use regulation but they do focus on important areas of concern.

The following is a list (alphabetically by author) of land use studies to be published in this series:

Dale-Johnson, David, Land Use Regulation in Metropolitan Vancouver.

Eger, A.F., Land Development Risk and Regulation in Montreal, 1966-1979.

Hamilton, S.W., Land Use and Building Codes: The Regulatory Framework.

Hamilton, S.W., Land Use and Building Codes Regulation: Summary Report.

McFadyen, Stuart and Denis Johnson, Land Use Regulation in Edmonton.

Proudfoot, Stuart, Land Use Regulation in Metropolitan Toronto.

* Seelig, Julie H., Michael Goldberg and Peter Horwood, Land Use Control Legislation in the United States -- A Survey & Synthesis.

* Silver, Irving R. assisted by Rao K. Chagaralamudi, The Economic Evaluation of Residential Building Codes: An Exploratory Study.

* already published.

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## RÉSUMÉ

Aux États-Unis, tous les paliers de gouvernement se sont activement engagés dans la réglementation relativement à l'utilisation du sol. La diversité, l'omniprésence et la complexité des contrôles américains ont provoqué récemment plusieurs mouvements de contestation. Les adversaires du système prétendent que celui-ci occasionne des délais et des complications inutiles dans le processus de développement. D'autres s'emploient à dénoncer l'inefficacité des contrôles et des règlements qui souvent se chevauchent et même s'opposent, et recherchent des méthodes plus efficaces et plus innovatrices. Dans l'arène de la réglementation concernant l'utilisation du sol, le principal dilemme consiste dans la nécessité de protéger et de préserver l'environnement menacé et un patrimoine foncier limité d'une part, et la nécessité de sauvegarder les droits et les intérêts privés en matière de propriété et d'aménagement urbain de l'autre.

Dans le système de réglementation américaine, il semble se manifester une tendance à la réforme. Un système simplifié serait probablement plus efficace tant du point de vue des organismes de réglementation que des propriétaires de terrains.

Outre ce désir de simplification, deux autres tendances sont perceptibles aux États-Unis : premièrement, le conflit se

fait de plus en plus intense entre, d'un côté, les besoins en énergie et, de l'autre, les préoccupations touchant l'environnement et l'utilisation du sol; en second lieu, le rôle croissant du gouvernement de chaque État devient de plus en plus important dans la réglementation de l'utilisation du sol, sous l'aiguillon des stimulants fédéraux, en particulier dans le domaine de la protection de l'environnement (par exemple, la préservation des zones côtières, de la qualité de l'eau, ainsi que des sites panoramiques, et autres richesses uniques).

Bien que, dans le passé, l'expérience et les politiques américaines aient servi de base aux initiatives prises ultérieurement au Canada, nous avons des raisons de douter qu'un bon nombre de régimes de réglementation touchant l'utilisation du sol actuellement en vigueur aux États-Unis puissent s'appliquer au Canada. D'abord, il existe une différence énorme dans la façon dont les besoins sont perçus dans les deux pays. Les densités moyennes étant considérablement plus fortes aux États-Unis, l'environnement y est beaucoup plus menacé. Deuxièmement, plusieurs des politiques américaines ont été rendues nécessaires en raison de la protection des droits de propriété assurée par la Constitution américaine. En l'absence d'une telle protection, les organismes canadiens de réglementation sur l'utilisation du sol peuvent parfois recourir à des mesures beaucoup plus directes que cela n'est possible chez nos voisins. Ainsi, la Land Commission Act adoptée par le

gouvernement de la Colombie-Britannique pour sauvegarder les terres agricoles permet à la province d'intervenir directement pour éviter la perte de bonnes terres arables. Par contre, aux États-Unis, des moyens aussi contournés que des servitudes agricoles et des droits d'exploitation transférables ont été proposés pour atteindre des fins semblables, étant donné que la constitutionnalité de méthodes plus directes de réglementation et de zonage des terres agricoles aurait pu être contestée.

Le rôle très différent, du point de vue constitutionnel, des gouvernements du Canada et des États-Unis, constitue une troisième raison d'user de circonspection à l'égard de l'application éventuelle au Canada de la réglementation américaine concernant l'utilisation du sol. Le gouvernement fédéral des États-Unis en est venu à exercer sur les affaires locales, telles que l'utilisation du sol et l'environnement, un contrôle et une influence beaucoup plus considérables que ne le fait le gouvernement fédéral canadien. Ainsi, nombre de programmes mis sur pied ou inspirés par le gouvernement fédéral américain pourraient être ou sembler inacceptables au Canada, car les provinces ont toujours défendu jalousement leur juridiction dans le domaine de l'utilisation du sol.

Malgré ces mises en garde, nous pouvons retirer beaucoup de l'expérience récente des Américains. Les initiatives

qu'ils ont prises pour simplifier et rationaliser la réglementation et les procédures pourraient utilement servir de modèles à ceux qui entreprendront des travaux semblables au Canada. De même, le rôle de plus en plus important que joue le gouvernement des États pourrait inspirer les provinces, car celles-ci semblent s'intéresser toujours davantage à la question de l'utilisation du sol. Enfin, comme les conflits entre les besoins énergétiques et les impératifs des règlements visant l'utilisation du sol risquent de se produire au Canada également, l'expérience américaine peut nous fournir beaucoup de signes avant-coureurs.

## SUMMARY

All levels of government have gotten actively involved in land use regulation in the United States. The diversity, pervasiveness and complexity of these controls has led many to question the system in the U.S. of late. Opponents find the system leads to delays and unnecessary complications in the development process. Proponents decry the ineffectiveness of frequently overlapping and competing controls and regulations and seek more effective and innovative schemes. Competing interests in the land use regulation arena focus on the key questions: the need to protect and preserve endangered environments and scarce land resources; the need to protect private rights and interests in property and urban development.

The trend in American regulation appears to be toward reform of the present system. It is hoped that a simplification of the process will be more efficient and more effective from the standpoints of both regulatory authorities and property owners.

In addition to the trend toward simplification, two other trends can be identified in the U.S.: the growing conflict between energy needs and land use/environmental concerns; the growing role of the states in land use regulation under prodding from federal incentive programmes, particularly in the area of environmental protection (eg. coastal zone preservation, water quality management, and unique scenic and environmental resources).

Whereas in the past U.S. experience and policy has provided the basis for subsequent Canadian actions, there is reason to doubt the relevance and transferability of many of the current U.S. land use regulating

schemes. First, there are enormous differences in perceived need between the two countries with the U.S. having considerably greater densities on average and therefore considerably greater environmental hazard. Second, many of the U.S. policies are necessitated by the constitutional protection of property rights in the U.S. Without such protection, Canadian land use regulating authorities can often take much more direct action than would be possible in the U.S. The B.C. Land Commission Act to preserve farmland is an example, where the province could take direct action to stem the loss of prime farmlands. In contrast, in the U.S. such convoluted schemes as agricultural easements and transferrable development rights have been suggested to achieve similar ends since more direct regulation and zoning of farmland is of questionable constitutionality.

A third reason for viewing U.S. land use regulations with caution in the Canadian context derives from the very different constitutional roles of the federal governments in Canada and the U.S. The U.S. federal government has evolved much greater control and influence over local matters such as land use and environment than has the Canadian federal government. Thus, many of the federally-mandated or instigated programmes in the U.S. would be unlikely to appear or be acceptable in Canada as the provinces have vigorously protected their primacy over land use matters.

Despite the foregoing words of caution there is much that can be learned from recent U.S. experience. Efforts to simplify and streamline U.S. regulations and procedures could serve as useful models for similar efforts in Canada. Similarly, the growing trend toward state involvement might be parallelled by the provinces, as it appears that provinces are taking more interest in land use regulation. Finally, land use and energy conflicts might also crop up in Canada and U.S. experience might be a bellweather worth watching .

# I. INTRODUCTION AND OVERVIEW

## INTRODUCTION

The development of land use controls in the United States has its roots in the form of privately initiated restrictive covenants that were popular in the late 19th century. The following eighty years have witnessed the progress of public involvement in land controls from the elementary bylaws of zoning in New York, 1916, to the complexities of federal environmental impact studies (EIS) in the late 1970's.

This growth in controls has been accompanied by a continual process of questioning of the legislation and the implemented controls in both the legal and political arenas. The principal questions addressed are the issues of federal jurisdiction in state affairs, and the public sector's interference with one of the individual's most sacred possessions, namely his property. Despite this rigorous examination, the level and nature of land use controls in the United States has clearly grown rapidly. Property owners now face a myriad of regulations from all levels of government concerning every conceivable aspect of land use.

While the regulatory picture remains varied, the important pieces of legislation of the present day follow a consistent theme in their environmental focus. The 1970's has been characterized by an environmental awareness that has exposed the sensitivity and balance of our ecosystems. The consequences of inappropriate land use are no longer limited to the security of value and enjoyment in single family neighbourhoods. Today the emphasis is on preserving valuable farmland and breeding grounds, and protecting sensitive areas from all types of urban pollution. The basic perspective of United States land use controls has expanded to encompass a larger number of potential problems and a broader definition of the 'public good.'

> ...the American landscape is being gobbled up by uninhibited suburban sprawl; the countryside is paved over by highways; the scenery is being chewed up by strip mining and other forms of obnoxious resource extraction; irreplaceable wet lands, swamp lands, and other environmentally necessary areas are being destroyed; our wilderness is being overrun by recreational exploitation; the sea shores and lake fronts are cluttered by vacation resorts; valuable agricultural land is disappearing under urban development; and the very physical environment of the nation is threatened. (1)

Accompanying this expanded perspective has been the development of additional tools and techniques for land use control.(2) Traditional zoning techniques have been broadened to include such variations as:

- agricultural zoning: designating whole areas or districts for agricultural use to preserve such activity, maintain open space and limit land speculation and development
- conditional zoning : "negotiation" whereby developers make concessions in order to obtain their requested rezoning
- conservation zoning: limits growth in areas which are specially designated due to their fragile nature or unique value
- down zoning : increasing minimum lot requirements to lower overall development potential
- floating zones : allows both flexibility and negotiability in an area's development, allowing for planned unit developments
- development rights transfer : "development rights" are severed from other property rights by public action, for exchange in the open market place

In addition, environmental demands have been met with a number of controls such as:

- environmental control programmes : directed by the federal government, these deal with air and water quality, noise, flood control, etc.

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(1) For a detailed examination of the pros and cons of this new wave of thought see: B. Bruce-Briggs, "Land Use and the Environment," in No Land is an Island (San Francisco: Institute for Contemporary Studies, 1975) pp. 1-15.

(2) This material is taken from Management & Control of Growth vol. I, edited by R. Scott, (Washington, D.C.: the Urban Land Institute, 1975) p.24.

- environmental review: such tools as impact statements to assess developments may be used as controls by causing excessive delays or expense

- environmental standards : these may be integrated in local ordinances to prevent building in areas with steep slopes, floodplains and the like

Moratoria have also been introduced as a land use tool in a number of areas of the United States:

- building/planning : may be instituted on subdivision requests, building permits, rezoning, etc., to allow for a "pause" for planning

- sewer servicing : resulting from inadequate sewer facilities, combined with an actual or imminent threat to public health

Controls have also been applied through:

- building codes : housing construction and costs may be impacted by unrealistic codes or standards; or some types of housing excluded by material specifications (e.g. prefab or mobile homes)

The list appears endless in comparison to Canadian land use techniques and practices that have been virtually limited to zoning, agricultural land protection and development fees or dedications.

Through the separation of powers,(3) these controls and land use in general falls under the jurisdiction of the states. The authority has in turn been delegated in varying degrees to either county or municipal control. The federal involvement in land use has tended to remain in the form of voluntary programmes offering guidance from the senior level of government through the promise of federal funds. While more direct federal control of land use matters is vigorously opposed by a variety of lobbies, there has existed for some time a desire for a comprehensive federal urban policy that would incorporate a number of the existing land use programmes.(4) However, as with national land use bills, federal urban policy has failed to materialize in a truly effective form, and the bulk of federal land use programmes remain in the hands of

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(3) For an explanation of the division of powers see: Denis Brogan, An Introduction to American Politics, (London: Hamilton, 1954).

(4) Charles Orlebeke outlines twenty years of federal promises in "Carter Renews the Romance with a National Urban Policy," Planning, August 1978 (Chicago: American Planning Association) pp. 11-16.

the individual federal agencies. This has led to the characterization of federal land use programmes as a Hydra-like organization, with common duplication of efforts and no common goals.(5)

At the state level, land use controls are currently being placed under tighter rein by state authorities. Controls delegated in the past to lower levels of government are being reassessed with the new awareness of the complexity of the land use problems that exist. The lack of sufficient expertise and the parochial vision of municipal and county governments has led to a variety of problems in land use that many states feel can only be effectively resolved on a state-wide basis.(6) The resulting adjustment in land use controls spawned by this attitude naturally varies from state to state. Thus, the degree of control and involvement of state versus local governments varies across the nation.

EMPIRICAL RESEARCH

Empirical studies on the impact of land use controls have been fairly limited in number and scope. Until quite recently, existing research concentrated almost exclusively on the impact of standard zoning.(7) With the development of new controls have come studies of such tools as environmental impact statements,(8) sewer and servicing moratoria(9) and studies investigating public policy in general.(10) With few exceptions, the dependent variable in all of these empirical works has been the price of the single family residential home.

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(5) See Robert Healy, "Coordination: The Next Phase in Land Use Planning," in Management & Control of Growth, vol. IV (Washington D.C.: The Urban Land Institute, 1978) pp. 170-178.

(6) The extent of state programmes aimed at a variety of problems is examined by H. Patton and J. Patton, "Harbingers of State Growth Policies," in Management & Control of Growth, vol. III (Washington D.C.: The Urban Land Institute, 1975) pp. 318-327.

(7) E. Bergman, "Development Controls & Housing Costs," in Management & Control of Growth, vol. III, op. cit., pp. 527-536. This presents a synthesis of the twelve principal studies.

(8) Tom Muller and Franklin James, Environmental Impact Evaluation and Housing Costs (Washington D.C.: the Urban Institute, 1976).

(9) George Peterson, Land Prices and Factor Substitution in the Metropolitan Housing Market (Washington D.C.: the Urban Institute, 1974).

(10) Urban Land Institute, Effects of Regulation on Housing Costs (Washington D.C.: The Urban Land Institute, 1977).

The studies of zoning's impact on price have provided evidence that minimum lot sizes set by zoning bylaws have a definite impact on housing prices. "The price of building lots and houses is dependent upon residential density and density-related residential uses."[11] However, a number of ambiguities have been identified by these studies :

- how do factors like consumer preference, building practice, other land use regulations, etc. effect the lot size/housing cost question?
- how does the observed lack of a one-to-one relation between increases in lot size and increases in land cost effect the question?
- and how does the interaction between other development controls effect zoning's impact?

The works to date have cited shortcomings in their data for their inability to answer these questions and to isolate additional cost implications. Given that in 1975 only a dozen empirical studies could be identified,[12] it is clear that the impact of zoning on housing costs requires more research.

Investigation into the effect of environmental protection legislation has been even more limited. One recently published work examined cost implications of the EIS review process in San Diego and Florida.[13] Once again the sample size was relatively small, and represents a case study of two areas of the country. The results of this work displayed that EIS requirements were responsible for a measurable but small (0.6% in San Diego; 1.4% in Florida) portion of the average cost of new single family houses.

The most comprehensive examination of the effects of regulation on housing costs was prepared by the Urban Land Institute in 1977.[14]

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(11) Bergman, op. cit., p. 530.

(12) These were identified after a mail survey of 300 individuals and organizations; a computer search of the National Technical Information Service; extensive library searches across the nation; see Bergman, op. cit., p. 529.

(13) Muller and James, op. cit..

(14) Urban Land Institute, op. cit..

Using a case study approach, the Institute relied on the cooperation of builders in San Jose, California and Jacksonville, Florida. Two builders from each market provided cost figures for a type of housing that they had been building to basically the same specifications for ten years. The study estimated that at least 20% of the housing cost increases in San Jose during the ten years observed, resulted directly from local growth management policies. Comparison with the Jacksonville findings revealed that limited consumer demand could direct some of this impact away from the final price, and toward developer profit and raw land prices.

> ....the relationship of government regulations and new housing prices depends to a large extent on the price-elasticity of demand for new housing in the local area and the degree to which the regulations affect the supply of developable land and the rate of new construction. (15)

Research into the more modern techniques of land use control is limited to one or two studies on a few controls. Until more work is conducted in this area, the existing studies should be seen as isolated views which should be avoided as a basis for generalization.

OVERVIEW

This paper attempts to pull together the land use picture in the United States by presenting a review of what are felt to be the important land use regulations currently affecting property owners in the country. The federal legislation reviewed here is led in stature by the National Environmental Policy Act which has introduced environmental impact statements to the land use process. Variations of this act have been produced to govern coastal areas, clean air and clean water. In addition, this paper presents the current status of national land use legislation, and outlines the demise of previous attempts at federal control.

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(15) Urban Land Institute, op. cit., p. 8.

At the state level, a number of specific acts are reviewed, including those covering coastal zone management, wetland management and flood plain protection. The existing examples of state-wide land use legislation are also examined, with those of Hawaii and Vermont singled out for detailed treatment. Land use controls at the local government level are also examined, with the principal examples covering zoning and servicing programmes.

With the number and variety of existing pieces of land use legislation, judgements had to be made regarding what legislation was to be covered and in what detail. Time and space would not permit total coverage, however, the principal elements of legislation are described in sufficient detail.

Some caveats should be noted at the outset of this review. Many of the controls that will be discussed below are relevant in Canada in a very limited context, primarily as a guide to some of administrative entanglements that can follow from overzealous and ill-thought out controls (as in the case of water and sewer moratoria). Moreover, many of the underlying social, economic and legal/political/institutional/cultural features of the two countries are so different as to effectively preclude the direct transfer of these United States based controls to the Canadian context. A good example is the perversion of zoning, as a form of land use regulation, to its often-abused present role as a tool of social planning in affluent suburban communities. So-called exclusionary zoning derives from the desire of American upper and middle income suburban communities to exclude lower income (often non-white) households. This is achieved through the imposition of large minimum lot sizes that effectively exclude lower and even middle income households. A related variant of suburban zoning controls is fiscal zoning which seeks to regulate urban development and channel it into uses that do not imply significant downstream costs to the municipality.

Both of these variants of the zoning concept derive from two conditions which are prevalent (or deemed to be prevalent) in the United States and which are not even present in any scope in Canada: racial unrest and fear of non-white and lower income households; the fiscal difficulties of many central cities and their suburbs.

Thus, when reading the following it must be kept clearly in mind that the social, political and other forces that gave rise to much of the American land use control legislation are not identifiable in Canadian urban areas. In short, before the reader gets too enthusiastic about most of the United States' "solutions" presented below, it is essential that we ask ourselves: first if the underlying conditions are at all similar and relevant; second if the nature of the problem for which the "solution" is being considered is at all similar to the analogous American land use problem; and third and finally, if the "solution" is viable and implementable under the Canadian set of land use and urban development control policies that are tied in directly with the legal and institutional environment in Canadian cities and provinces.

If these caveats and distinctions are kept firmly in hand, then the review of various United States land use and urban development controls is likely to prove most helpful and is likely to stimulate a range of new and appropriate policies for influencing land use and urban development in Canada. If however, these caveats are not heeded, then we are likely to find ourselves adopting a range of inappropriate policies, doomed at the outset to fail because of the lack of congruence between the Canadian and United States institutions, and above all due to the likely significant differences in the actual problems that these various urban development policies are intended to resolve.

## II. FEDERAL MEASURES TO REGULATE LAND USE AND DEVELOPMENT IN THE UNITED STATES

Active federal government involvement in the regulation of land use is a phenomenon which began only in the late 1960's and early 1970's in the United States. Prior to that time, land use was controlled almost entirely at the local level, with federal government involvement in land use planning confined in the main to national parks and other areas actually owned by the government.(16)

Earlier federal government influence on land use came mainly in the form of advisory and voluntary programmes or, more often, as side effects of legislative programmes aimed at particular problems. One example of an advisory measure was the Standard State Zoning Enabling Act which was drafted by the United States Department of Commerce in the 1920's and was distributed to all the states. States were free to adopt the ordinance or not as they saw fit -- almost all states did in fact adopt the legislation.(17)

Federal intervention in land use control continued to be indirect, focusing on such programmes as home mortgage guarantees, highway construction and public housing. One notable exception to this indirect approach was the creation of the Tennessee Valley Authority(18) (TVA) in 1933. In establishing the TVA, President Roosevelt's administration extended physical planning beyond the areas of highways and public works. TVA was a federal, multi-state, multi-purpose agency with energy, land use and environmental powers, all aimed at providing a comprehensive approach to helping residents of the depressed Appalachian region of Tennessee and West Virginia.

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(16) The National Park Service Act of 1916 establishes the principal guidelines for public parks; the Bureau of Land Management is responsible for the administration of all other public lands.

(17) U.S. Department of Commerce, Advisory Committee on City Planning and Zoning, A Standard State Zoning Enabling Act (Washington D.C.: U.S. Government Printing Office, 1926).

(18) For an old and new look at TVA see: Julian Huxley, TVA, Adventure in Planning (Surrey: The Architectural Press, 1944) and M. Owen, The Tennessee Valley Authority (New York: Praeger, 1973).

Roosevelt described it as a "corporation clothed with the power of government, but possessed of the flexibility and initiative of a private enterprise." The original scheme covered malaria control, soil erosion, bringing electricity to rural areas, and other projects. This famous experiment in comprehensive planning eventually came to be dominated by one of its functions -- energy generation, and it therefore failed as a multi-purpose planning agency.

Other federal programmes affected land use in a peripheral fashion, but these side effects of programmes directed at specific problems turned out to be powerful indeed. The federal highways programme is a case in point. With passage of the Federal Aid Highway Act of 1956 (19) came the National System of Interstate and Defense Highways. Under this programme, 90 percent federal reimbursement is available for planning, design and construction of roads in the interstate system, and 70 percent for those in other systems. The interstate highways have certainly greatly eased travel among regions, but the negative effects of the programme in urban areas have only been understood with the aid of hindsight. The costs of the programme in terms of increased local street usage, disruption of neighbourhoods, destruction of housing, congestion, parking problems and changes in urban form were not included or indeed even foreseen in the cost sharing formula.

Highways also turned out to be a major stimulant to growth in rural areas. Construction of freeways made more distant areas part of the

(19) U.S. Code vol. 23 section 134.

urban labour and commercial market, thus inducing even greater demands for travel and drawing residential and commercial development out of cities into vacant suburban areas. This sprawl development pattern is only now acknowledged as wasteful of energy and land.(20)

But highways alone could not have created the suburban development boom and the concurrent decay of many central city areas without the aid of another federal programme which also affected land use more profoundly than its creators realized. In the 1930's a programme was introduced which made home financing easier than ever before. The Roosevelt administration introduced the Federal Housing Administration (FHA) mortgage guarantee programme to aid the construction industry in order to create jobs and to move the country out of the Depression. FHA provided guarantees for mortgages; with FHA's backing banks were willing to extend mortgages at 4 percent for a 25 year term. This programme helped create and develop suburbs on a scale never seen before.(21)

Another federal programme, urban renewal, began as an attack on a particular symptom -- the existence of slums and blighted areas. Slum clearance and urban renewal programmes began in the Depression. These programmes expanded from the provision of low income housing to radically large-scale, non-residential projects covering several city blocks. These programmes affected land use dramatically. Their cumulative effect was to destroy more housing units than they created, to cause social and economic hardship to those who were

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(20) For a detailed analysis of this subject see: Real Estate Research Corporation, The Cost of Sprawl (Washington D.C.: Department of Housing and Urban Development, 1974).

(21) John Macey, Publicly Provided and Assisted Housing in the U.S.A. (Washington D.C.: the Urban Institute, 1972).

relocated and to disrupt large areas of cities.(22)

Environmental Awareness

This "sidelong" approach to land use control shifted during the 1960's and 1970's, when the federal government began to intervene more directly into the control of land use. The late 1960's saw the development of a grass-roots environmental protection movement. "Earth Day," a commemorative day newly established in 1970, was an occasion for massive rallies and festivals in support of a clean environment.(23) Earth Day was a tremendous popular success and served to mark the beginning of a new environmental awareness and activism among the public. Some of the vigor that characterized the anti-war movement now appeared on the home front as new environmental action groups were formed and strengthened.

The American public was becoming increasingly conscious of the broader impacts of individual land use decisions and of the failure of local governments to protect the environment. The need for higher levels of government to deal with land use regulation was apparent to many, and much of the federal legislation reviewed in the following sections was passed in response to the pressures of the burgeoning environmental movement. Therefore, in examining the United States federal role in land use regulation, we are looking primarily at only a decade of strong participation in this field.

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(22) See: Martin Anderson, The Federal Bulldozer: A Critical Analysis of Urban Renewal, 1949-1962 (Cambridge: M.I.T. Press, 1964).

(23) First celebrated in 1970, the custom was continued on an informal basis for several years. See Environmental Handbook, "prepared for the first national environmental teach-in," G. de Bell, editor (New York: Valantine Books, 1970).

Federal participation in land use controls is essentially a partnership role, as befits a federal system of government. Most federal programmes require the involvement of state and local governments. States and municipalities receive grants from the federal government, they develop implementation plans, review project proposals and review and help prepare environmental impact statements. The 1950's saw the first involvement of the federal government in land use. The Urban Renewal Program, introduced in that period, required that a municipality have a workable programme for modernizing land use controls; it required planning, adequate local ordinances and code enforcement measures as prerequisites for receiving federal aid to renew deteriorating neighbourhoods. At this time, the federal government also began providing funds to local, metropolitan and state planning agencies.

But, as noted earlier, the federal government actually shifted from this type of financial assistance function and waded into direct involvement in land use control only in the late 1960's. The National Environmental Policy Act (now commonly referred to by its acronym NEPA) of 1969 was the cornerstone marking that change.(24)

Prior to reviewing the provisions of NEPA, it is important to examine two issues which describe the climate within which federal land use legislation operates in the United States. The two issues are

1) what are the aims of land use regulation in the U.S., and how did these aims change a decade ago to produce such a pronounced shift in the federal government's role? and

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(24) 42 U.S.C. Section 4321 et seq..

2) what are the limits to federal government involvement in land use?

Aims of Land Use Regulation

As Bruce McDowell has pointed out, the new focus on the sharing of land use responsibilities among several levels of government indicates a rapid evolution in inter-governmental relations. But this change in inter-governmental relations is only a symptom. The real change lies in what is expected of land use control.(25)

Land use control once called to mind only the function of zoning, essentially a local power designed to keep neighbourhoods pleasant and to separate types of land use which were considered incompatible. Now land use controls are expected to help protect natural resources, conserve energy, and provide equal housing opportunities for people of all races.

As McDowell notes, land use regulations must now contribute to a number of objectives, although they do not necessarily achieve these objectives on their own. There are national and state growth policies, metropolitan fair share of housing formulae, and local no-growth proposals. There are transportation measures to reduce pollution and

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(25) Bruce D. McDowell, "Land Use Controls and the Federal System," in Robert W. Burchell and David Listokin (eds), Future Land Use (New Brunswick, N.J.: The Center for Urban Policy Research, Rutgers University, 1975) pp. 43 ff.

energy consumption, coastal zone management objectives, not to mention the myriad of requirements involving provision for equal accessibility by all members of the population and other measures.

The shift in what is expected of land use regulations is best described in the rallying cry of the 1973 Task Force Report The Use of Land: A Citizens' Policy Guide to Urban Growth.

The task force refers constantly to a "new mood in America."

> There is a new mood in America that questions traditional assumptions about urban growth and has higher expectations of both government and new urban development. We view this new mood as offering an extraordinary opportunity, for out of the willingness of citizens in many parts of the country to say "stop" or "wait" to development can come greater assurance that the development we get will be of higher quality than much of the development since World War II.(26)

This description of America's "new mood" was taken up in many other reports, articles and legislative proposals during the early 1970's. It indicated the high expectations people came to have of what could be accomplished through land use regulation. It represented the shift from private, personal concerns such as the protection of one's property and the stability of one's neighbourhood toward the public goals of preservation of wilderness and beach areas and even equality of opportunity and civil rights.

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(26) William K. Reilly (ed.), The Use of Land: A Citizens' Policy Guide to Urban Growth, A Task Force Report Sponsored by the Rockefeller Brothers Fund (New York: Thomas Y. Crowell Co, 1973), p. 6.

Limitations to Federal Involvement in Land Use Regulations

But even as enthusiasm and optimism grew in the United States for all that could be accomplished through federal intervention in land use regulation, proponents of new legislation found their ideas constantly being tested against the constitutional limitations on federal and indeed any governmental infringement on private property rights. Americans are a litigious people, and almost every new type of land use regulation has been tested and retested in the courts. It is important that the Canadian observer of the U.S. regulatory scene be familiar with the chief restraints on government intervention in the United States. Some of these constraints exist in Canada as well.

The most important restraint on land use control is contained in the Fifth Amendment to the U.S. Constitution, which prohibits the federal government from taking private property for public use without just compensation. The Fourteenth Amendment extends this provision to the states.(27)

This so-called "takings clause" has three components, any or all of which may be raised in court cases: public use, just compensation,

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(27) For a more detailed description of constitutional limits to government regulation of privately owned land, see Fred Bosselman, David Callies, and John Banta, The Taking Issue: An Analysis of the Constitutional Limits of Land Controls (Wash, D.C.: U.S. Government Printing Office (1973) and Management and Control of Growth, Volume I (Wash, D.C.: Urban Land Institute, 1975) Chapter IV.

and taking. Public use indicates that the public interest must be served when the government takes private property; the public interest is deemed to be served when the government acts to promote public health, safety, morals and welfare. The courts have interpreted public use quite broadly to include aesthetics, balance of land uses, etc.

Just compensation refers to the fact that a fair market price must be paid for land taken.

The knottiest issue in the takings clause is the question of whether or not particular government actions or regulations do constitute a taking which must be compensated. If no reasonable use can be made of the land, then the owner is entitled to compensation. However, if the use of the land is restricted, as by height and bulk regulations, then the regulation is generally not considered a taking. Four general guidelines are used by United States courts to decide takings cases: (28)

1. When a regulation is aimed at preventing private parties from harming the public, it is generally not considered a taking.

   e.g. The courts have upheld prohibitions on the filling of wetlands -- changing the wetlands and swamps does damage to the public by upsetting

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(28) The following discussion of the takings issue is summarized from Elaine Moss (ed), Land Use Controls in the United States. A Handbook on the Legal Rights of Citizens by National Resources Defense Council (N.Y.: The Dial Press, 1977) pp 7-11.

the natural environment. (Wisconsin Supreme Court, Just V. Marinette County, 1972).

2. When a regulation is imposed to achieve a public good and not just to prevent a private harm, then compensation must be paid.

   e.g. A floodplain regulation prohibiting building of any structures was struck down by the Connecticut Supreme Court. Compensation would have to be paid to landowners. (Dooley V. Town Plan & Zoning Commission of Town of Fairfield, Connecticut, 1964).

3. Where financial loss to the owner amounts to confiscation of the property, then a taking has occurred.

   e.g. Some courts (Maine & Massachusetts) have struck down wetlands protective laws which allowed the owners no economic use of their land. (Commissioner of Natural Resources V. S. Volpe & Co, Massachusetts, 1965).

4. The importance of the government policy being achieved is weighed against the intrusion on privately held property.

The other major constitutional limitations on government regulation of land use are the due process and equal protection clauses of the Fourteenth Amendment. A law must be reasonable and not arbitrary and must relate to some state objective.

Within this broad framework of the goals and limitations on government activity in the land use field, it is possible to establish the

significance of the key pieces of federal legislation affecting land use in the United States. The first and most significant of these is the National Environmental Protection Act of 1969.

A. National Environmental Policy Act (NEPA)

Since no National Land Use Policy Act has actually been passed by the United States Congress, the National Environmental Protection Act remains the most far-reaching environmental protection measure ever enacted. The Act, which became law on January 1, 1970, originated with the belief that the programs and regulations of the government have historically been aimed at enhancing the production of goods and services in the country, and have not created any safeguards against environmental decay.

NEPA states that each person should enjoy a healthful environment and that each person should contribute to the preservation and enhancement of the environment. Thus, NEPA represents a dramatic new addition to the rights of every individual. NEPA recognizes individual citizens' interests in the protection of what is termed their "Regional Ecological Systems." This intent of the legislation is key, because it confers upon individuals the right or "standing" to sue in cases where they allege that federal actions or decisions adversely affect their regional environment. NEPA thus provides citizens with a far-reaching power to "take the government to court." "It has greatly expanded the notion of

standing in federal administrative proceedings."(29)

The purposes of the Act are:

> To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality. (30)

The Act states that federal agencies should carry out their programmes in a way which fosters these aims. The most forceful provision of the Act requires that an Environmental Impact Statement (EIS) be prepared for "major Federal actions significantly affecting the quality of the human environment."(31) By means of this required case-by-case review of proposed actions, environmental issues are examined before a proposal is carried out. An EIS includes the following:

a) The environmental impact of the proposed action,

b) Any adverse environmental effects which cannot be avoided should the proposal be implemented,

c) Alternatives to the proposed action,

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(29) Victor Yannacone, Jr, "The Origins of Our National Environmental Policy," in Burchell & Listokin (eds), op. cit., p. 151.

(30) United States Code, Volume 42, Section 4321.

(31) United States Code, Volume 42, Section 4332.

d) The relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and

e) Any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.(32)

The agency preparing the EIS circulates its draft version to other government agencies, with relevant expertise, and it also makes the draft available to the public. The final EIS incorporates any comments and additional information received and it then forms part of the action proposal carried out by the government agency.

The requirement for preparing EIS's has been broadly interpreted. It covers not only direct federal actions but also federal approval, licensing or funding of the programmes of other levels of government or individuals. So EIS's are prepared not only for federal government construction of an air force base, but also for federally aided highway or urban renewal projects and federally licensed construction of power plants or offshore oil drilling projects.

In most cases, federal agencies prepare the impact statements, although they receive information from state, local and private

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(32) Ibid, Section 4332 (2) (c).

bodies. In 1975, NEPA was amended to permit state agencies to prepare EIS's in cases where federal grants are made to states. But federal officials retain the responsibility for evaluating and revising each EIS before they adopt it. The Highway programme is affected most noticeably by this amendment. State Highway Departments now prepare EIS's.

Now that EIS's have been used for a number of years, it is possible to make some comments on their usefulness.

1. Who Prepares the Environmental Impact Statement

As mentioned briefly above, the federal government has the main responsibility for preparation of EIS's, but the information may come from other bodies. It is important that the federal agency responsible review the material critically and not simply rubber stamp it. The division of responsibility between the federal agency and others involved in EIS preparation has been problematic. In the case of the federally aided state highway programme, some court judgements have required genuine federal involvement in preparation of the EIS, while other judgements have required only consultation, analysis and adoption by the federal authority of the EIS prepared by the state.(33)

As Elaine Moss notes(34) three EIS's prepared for proposed

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(33) Elaine Moss (ed), op. cit., p. 21.

(34) Ibid, p. 29.

nuclear power plants along the Hudson River had three different agencies acting as the lead or coordinating agency for the reports. The three nuclear plants were to be located near each other and posed similar dangers to the fish life of the Hudson. One report noted significant possible damage to the striped bass fishery; the second noted insignificant damage; and the third barely dealt with the fishery question.

So the approach and quality of the EIS's obviously differ radically from agency to agency. Most experts still favour federal domination of the EIS process, stating that proposals to delegate responsibility for EIS preparation to other levels of government are basically attempts to dilute the power of EIS's and of the NEPA legislation. EIS's prepared by others are also more susceptible to being slanted by the self-serving statements of an applicant who wants to obtain federal funds or licenses.

2. The Quality of the Environmental Impact Statement

The courts have ruled that the information provided in an EIS must be sufficient to enable rational decisions to be made, by the agency, Congress, the President and the public.(35) So the EIS must cover not only the particular proposed action, but also the alternatives to that action even though some of these alternatives may be beyond the agency's jurisdiction. An agency examining the impact of construction of a nuclear

(35) Committee for Nuclear Responsibility v. Seaborg, 463 F. 2d 783, 3 ERC 1126 (D.C.Cir.1971); Natural Resources Defense Council v. Morton, 458 F. 2d 827, 3 ERC 1558 (D.C.Cir.1972)

power plant must also consider the alternatives to the use of nuclear energy for the provision of power.

Many aspects of the EIS are technical and many EIS's have become technical treatises by environmental scientists for the benefit of other environmental scientists. Now that EIS's include economic and social impact components, economists and sociologists also write comments to be read by other sociologists and economists. The danger is that many of these experts are far removed from the real world of politics and of human needs.

EIS's lose their value when they become ponderous reports filled with the jargon of "experts," which cannot be used by decision makers. The spirit of the NEPA legislation is intended to enable all citizens to participate in decisions involving their environment, but this intent is difficult to carry out in practice.

3. Is An Environmental Impact Statement Warranted?

Another problematic area under the NEPA legislation is the determination of whether or not an EIS is needed. There have been a number of court cases over the question of whether particular programs constitute actions significantly affecting the human environment.[36] In general, the phrase has been interpreted liberally, with even such actions as federally insured loans for certain apartment buildings being

(36) For example see: Goose Hollow Foothills League v. Romney, 334 F. Supp. 877, 3 ERC 1087 (D.Ore.1971).

deemed to require EIS's. In general, even in the case of a small project, an EIS is necessary if the project's cumulative or secondary effects such as noise or pollution combine to have a significant impact on the environment.

4. The Scope of Environmental Impact Statements

Just how much ground must an EIS cover? This issue has also been a source of litigation. Moss summarizes the two main principles which have emerged from court cases on the subject:[37] segmentation and tiering. Segmentation means the breaking down of large projects into smaller segments; EIS statements are then prepared for the small segments. The courts have ruled that a project may not be broken up in order to obscure the total environmental impact of the project.[38] A highway proposal cannot be divided into a series of sections for independent analysis.

Tiering refers to the fact that EIS's must be prepared on entire programmes and also on individual projects. So an EIS was prepared on the entire breeder reactor programme of the Atomic Energy Commission and an EIS must be done for each reactor site proposed.

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(37) Elaine Moss, (ed), op. cit., pp. 22-23.
(38) Named Individual Members of the San Antonio Conservation Society v. Texas Highway Department, 446 F. 2d 1013, 2 ERC 1871 (5th Cir.1971); Atchinson, Topeka, and Santa Fe Railway Company v. Callaway, 382 F. Supp. 610, 7 ERC 1016 (D.D.C.1974).

A number of other issues, such as the timing of the preparation of an EIS, have been raised in the courts as well. But the preceeding description should serve to acquaint the Canadian reader with the basics of this most significant piece of American environmental legislation. Over twenty states have adopted legislation modeled on the federal NEPA. These state laws require state agencies to prepare EIS's for their programmes and proposals which significantly affect the environment. So the federal environmental legislation is even more far-reaching, since it has been mirrored in a number of state acts.(39)

NEPA, with its requirement for Environmental Impact Statements, can serve as a powerful influence on government decision-making. It pinpoints projects and programs which should be modified or abandoned. As the above description of some of the problem areas and areas of litigation indicates, there is a danger that NEPA requirements can be fulfilled through self-serving analyses of projects which have already been decided upon. The courts have been forceful in upholding the broadest interpretation of NEPA requirements. Environmental Impact Statements must be broad in scope, they must be written as early as possible -- in the planning stages of the project, they must cover whole programmes as well as individual siting decisions, and federal government agencies must be intimately involved in their preparation and must not simply rubber stamp the work of others.

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(39) Examples of eighteen such acts are outlined by R. Gladstone and R. Witherspoon in "EIS & Development," in Management & Control of Growth, vol. III, op. cit., pp. 141-147.

B. The Coastal Zone Management Act

The Coastal Zone Management Act of 1972 (40) is another federal statute which strongly influences land use. Unlike NEPA, which involves the federal government directly in the preparation of Environmental Impact Statements, the federal role in the Coastal Zone Management Act is essentially that of a provider of funds. Of course, provision of funds is a powerful tool, as demonstrated by the federal-aid highway programme.(41) This programme funded ninety percent of the cost of planning and construction of roads in the interstate highway system and seventy percent of the cost of roads in other systems. The availability of this funding prompted a great deal of road construction, since road budget figures were thought of in terms of ten cent or thirty cent dollars -- a capital improvement bargain.

The availability of matching funds for coastal zone management programmes has also prompted considerable activity. All thirty of the states and four territories eligible to receive funds under the Act have applied for grants to develop programmes.

Purpose of the Act

In passing the Act, Congress established a national policy "to preserve, protect, develop, and where possible, to restore or enhance, the resources of the Nation's coastal zone for this and succeeding generations." Passage of the Act was prompted by the

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(40) United States Code, Volume 16, Section 1451 ff.
(41) United States Code, Volume 23, Section 134(a).

recognition that unplanned development of the country's coastline was destroying irreplaceable wildlife, marine life, and priceless beaches, and it was also closing off vast areas of the shoreline to the public.

Over half of the United States' population lives in coastal areas. These population centres have generated enormous amounts of domestic and industrial wastes, which are dumped into the ocean. Mineral and oil resources are being mined offshore, and many intertidal and wetland areas have been filled to provide room for urban development and for resort areas. These wetland areas are now recognized as one of the richest natural areas, producing the aquatic organisms that are the vital basis of the food chain.

In the face of these competing demands for coastal land for cities, recreation areas, industry, mineral exploration, transportation, wildlife, and for public enjoyment of natural and beach areas, municipal planning and regulations have not been able to provide a larger scale framework for coastal development. Each municipality sees its few miles of shoreline in isolation.

In the United States, one-fourth of the salt marshes have disappeared. New York and California have each lost half their wetlands. In California, the public has access to only 263 miles

of the 1,072 mainland coast.(42)

1. Contents of the Act

The Coastal Zone Management Act aims at providing an overall framework for shoreline development within each coastal state. It provides for a federal two step process by which states obtain federal grants:

- Preparation of a long range coastal zone management plan,
- Federal approval of the plan, and state implementation of the plan.

Federal grants originally covered up to two-thirds of costs in each of these stages. In 1976, the Act was amended to provide up to eighty percent federal funding. Foot-dragging in the plan preparation stage is eliminated by the provision that only four annual grants may be awarded for programme development. No grants were made after June, 1977.

The Act is administered by the U.S. Department of Commerce, specifically by its sub-agency the National Oceanic and Atmospheric Administration. The agency reviews applications for grants and assures that the plans prepared meet the requirements of the statute. The Act applies not only to states lying along the Atlantic and Pacific Oceans, but also to those

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(42) Elaine Moss (ed), op. cit., p. 100.

on the Great Lakes.

The statute specifies that a coastal zone management plan must include: identification of boundaries of the zone, identification of permitted land and water uses, of areas of particular concern within the zone, identification of means by which the state will control permitted uses, guidelines regarding the priority of uses in certain areas, description of the organization which will implement the programme. This last provision is important -- the state must show that it is organized to carry out the programme. Specifically, it must have the power to control development in order to insure compliance with the programme and to resolve land use conflicts. It must have the power to expropriate land in order to insure compliance with the management programme.

The 1976 amendments added three new elements to coastal zone management plans: provision for energy facility siting, erosion control, and access and protection of beaches and other public areas. The amendments also authorized funds for acquiring public access to coastal areas and for preservation of islands.

The terms of the Act encourage public participation in the development of the management plan. Federal approval is not granted unless there is evidence that an opportunity for all

interested parties to participate has been provided. Public hearings must be held during the development of the plan.

2. Loopholes

There are two major loopholes in the coverage of the Act. The first is that there are no means of forcing states to come up with coastal zone management programmes. Coastal zone management remains a voluntary matter, although participation is made very attractive by the prospect of eighty percent matching funds and by the availability of additional funds for the acquisition of public access to beaches and of wildlife sanctuaries or other environmentally significant sites. All eligible states have applied for grants for the first stage of plan preparation, so possibly the voluntary approach will work.

The second loophole is the lack of interim controls on development. During preparation of the management plan which may take two or three years, development can continue in the area being considered as the coastal zone, subject to existing municipal regulations. The fact that controls over the area are being considered is likely to prompt a large number of development applications by those who want to get in "under the wire" before controls are imposed, thus ironically worsening coastal zone exploitation -- the reverse of the Act's intention.

California closed this loophole by enacting an interim permit

system in its Coastal Zone Conservation Act of 1972. No development within the proposed coastal zone area lying 1,000 yards inland from the high tide line could take place without a permit from one of the coastal commissions created by the Act. California enacted this provision on its own initiative but it is not required by the federal Act.

The Coastal Zone Management Act, together with the provisions of NEPA, provides strong control over major developments in coastal areas. These developments must not only conform to the coastal zone management plan drawn up by the particular state, but must also be subjected to environmental impact analysis. So the hurdles facing development in coastal zones are formidable and help insure environmentally sound development.

C. The Clean Air Act of 1970

In the past, the major responsibility of private development has been to comply with limited or minimum standards of health and safety. The Clean Air Act of 1970 steps beyond the concept of minimum responsibility by setting desirable levels of performance. Maximum pollution levels are specified, but private and public

sources are expected to employ "reasonably available control technology" to limit air pollution. This aspect of the legislation indicates that where some sources have the ability and technology to achieve more than the minimum standard, they are expected to do so.

The technical provisions of the Clean Air Act of 1970 and the amendments of 1977 are quite complex. The description below aims at summarizing those provisions of the Act which have the greatest impact on land use.

1. Basic Provisions of the Act

   Under the Clean Air Act of 1970, the United States Environmental Protection Agency is required to establish national ambient air quality standards for six types of pollutants: sulfur oxides, particulate matter, carbon monoxide, photochemical oxidants, hydrocarbons, nitrogen dioxide. Two types of standards are specified: primary standards which describe the level of air quality necessary for human health, and secondary standards which protect plant and animal life, visibility and other factors important to the general public welfare. The primary standards were to be met by mid-1975, but the 1977 amendments granted extentions; and the secondary standards were to be met within a reasonable time.

   Unlike the Coastal Zone Management Act which provides funding on attractive terms in order to induce states to prepare

management plans, the Clean Air Act compels each state to develop implementation plans to attain and also to maintain the federal standards.

While the standards to be met are uniform throughout the country, the level of urgency of the air pollution problem varies from place to place. The Environmental Protection Agency has therefore divided each state into priority I, II, and III regions. Level I areas have the most polluted air.

An important component of the air quality plans required of the states is the development of land use or transportation controls where needed to achieve the federal standards. So land use regulation is an important aspect of the maintenance of air quality under the terms of the federal legislation. State plans must include the following four provisions:

- Review of Major New Stationary Source of Pollution Prior to Construction

  Stationary sources are those which emit pollution from a stack during the course of operations. Steel mills, smelters, and plants fueled by coal are among the many direct sources of pollution. State plans must include both a procedure for review of all proposed new stationary pollution sources and the provision of authority to the state to block

construction of a source which would jeopardize air quality standards.

This component of air quality plans has strong land use implications. It is not enough to restrict emissions from individual stacks, since of course two or more factories located near each other might have the combined effect reducing air quality below acceptable limits, although each individual factory might meet the emission standards. Location is critical. The Clean Air Act provides considerable power to the states by enabling them to review the siting of pollution sources before construction.

- Review of Indirect Sources of Pollution Prior to Construction

  Indirect sources are those which attract cars, airplanes and other moving sources of pollution. Airports, shopping centres and large stadiums are among the indirect sources of pollution. States are required to develop a procedure for reviewing indirect pollution sources prior to construction. This provision of the Clean Air Act has been difficult to implement. By the cut-off date of August, 1973, only two states had submitted plans for review of indirect sources of pollution. The federal government's Environmental Protection Agency therefore promulgated its own regulations for

states which had not submitted plans. Federal regulations were later suspended, however, due to consideration of amendments to the Act (see description of amendments below). A number of states adopted their own review programmes, independent of the federal regulations, and these remain the principal form of review of pollution from indirect sources.

- Preparation of Air Quality Maintenance Plans

States are required to prepare plans for areas which now meet the clean air standards, but which are in danger of violating the standards during the decade following passage of the Act because of intensive urban development. This provision of the Act has been problematic because no state has an adequate monitoring system to determine which areas might violate national standards by 1985.

The criteria for designating areas as maintenance areas are set out in the United States Environmental Protection Agency's Guidelines for Air Quality Maintenance, Volume 1: Designation of Maintenance Areas. The adequacy of these criteria has been disputed, but the major problem remains the difficulty which states have in monitoring indirect sources.

- Prevention of Significant Deterioration of Air Quality in Areas Which Are Now Far Above National Standards

  This requirement of the Act focuses on the fact that a programme aimed at improving air quality in problem areas should not allow "clean air areas" to deteriorate. The requirement for protection of clean air areas was incorporated into the Act in 1974 in response to a Sierra Club law suit against the Environmental Protection Agency.

2. Clean Air Act Amendments of 1977

The compliance dates originally set in 1970 proved to be overly optimistic. The need for amendments to the Clean Air Act of 1970 became apparent as these deadlines drew close and could not be met. The amendments were extremely controversial and were hard fought over in both the 1976 and 1977 sessions of Congress. They contained not only extensions to deadlines but also some procedural and substantive changes.

The amendments modify the ambitious statute of 1970 by extending the timetable for another ten years. The new timetable is considered firm and will not be extended. The main points covered in the 1977 amendments are summarized below: (43)

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(43) For a detailed review of the amendments, see 7 Environmental Law Reporter 10182, October, 1977, published by the Environmental Law Institute.

- Automobile Emissions

The 1970 Act specified a 90 percent reduction in tailpipe emissions, but the statutory deadlines were extended three times because the auto industry was unable to meet them. Intense and bitter lobbying by auto industry unions and manufacturers and by environmentalists finally led to a compromise solution specifying the permissible number of grams per mile of hydrocarbons, nitrogen oxides, and carbon monoxide to be emitted from the tailpipes of 1977, 1978, 1979, 1980 and 1981 model cars.

- Significant Deterioration

Like automobile emissions, the question of deterioration of air quality in clean air areas was bitterly contested in Congress. A complicated set of regulations was set out for three categories of areas, ranging from pristine wilderness sites to areas where considerable industrial development is permitted, each state must revise its implementation plan to include a permit system to prevent significant deterioration.

- Development in Areas Which Do Not Meet Federal Standards

The amendments provide for an "offset process" by which permits can be granted for new industrial sources if the pollution generated by the new source is offset by reduction in pollution from other sources. Permits may be issued in these sub-standard areas only if the state has in place a

programme for meeting primary pollution standards by 1982.

- Extension of the Timetable

The compliance date for individual stationary sources is extended until 1979, or three years after the scheduled date in the relevant implementation plan, which ever comes later.

- Noncompliance Penalty

An innovative noncompliance penalty was introduced which removes the economic benefit of not complying with standards. The violator is assessed a fine equal to the benefit he would derive from noncompliance.

- Continuous Emissions Control

This amendment states forcefully that permanent controls on pollution are required, and that methods such as intermittent production shutdowns or the use of tall stacks to disperse pollution are acceptable only as interim measures.

- Pollution from Federal Facilities

Federal facilities must comply with state pollution control requirements and procedures.

The amendments of 1977 help assure workable state clean air programmes. The state is now responsible not only for development of air quality management plans, but also for instituting

a permit system to prevent significant deterioration of air quality in clean air areas and also a permit system for development in "nonattainment areas" (those which now do not meet federal standards). These permit systems help assure continued economic development in both clean air and nonattainment areas. The permit system emphasizes the fact that pollution sources which do not curb their emissions as much as possible limit the development of other industries by using up part of the air shed which might otherwise be available to new sources. The interdependence of industries and other activities which share the same air shed is highlighted in this legislation.

D. Federal Water Pollution Control Act Amendments of 1972

Prior to passage of these amendments, pollution abatement was primarily a local concern. Regional approaches to water quality issues were few and far between, and certainly were not encouraged by senior governments. The majority of water plans dealt with construction of treatment facilities and with the problems of industrial waste. What is known as "nonpoint pollution" was not addressed. Nonpoint pollution is man-made alteration of the chemical or biological make-up of water that is not caused by an individual, easily identifiable source of pollution such as a pipe. Nonpoint pollution can be caused by runoff from farming areas or urban developments or from mining operations.

The 1972 Federal Water Pollution Control Act amendments represent a major change in attitude toward water pollution and

also a boost to regional land use planning. The major provisions of the amendments are outlined below, and a separate section is devoted to Section 208 of the Act, which is the most critical in terms of land use regulation.

The Act represents a shift in attitude toward water quality in that it made clear that rivers and streams are no longer to be considered part of the waste treatment process. It was no longer considered inevitable that certain streams must be polluted as an inherent part of industrial development. The Act is ambitious. Its purpose is to achieve "water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water." (44) The date set for meeting this objective is 1983. The broad objective of the programme and the short time frame for carrying it out highlight the importance of the planning and management aspects, since grants for facilities alone, as provided in Title II of the amendments (grants for treatment facility construction), cannot accomplish the far-reaching aim of improved water quality in all streams and rivers.

1. Basic Provisions of the Act

Along with the principal goal of "fishable and swimmable" water by 1983, the amendments set out a number of other policies:

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(44) Federal Water Pollution Control Act Amendments of 1972, United States Code, Volume 33, Section 1251.

- eliminate discharge of pollutants into navigable waters by 1985
- prohibit discharge of toxic pollutants in toxic amounts
- provide federal funds to build publicly owned waste treatment management processes to assure control of the sources of pollutants in each state
- begin major research and development effort to develop the technology needed to eliminate the discharge of pollutants into navigable waters and oceans.

The regulatory provisions of the amendments are divided into two categories, one dealing with point source pollution such as that from a pipe or ditch, and the second dealing with nonpoint source pollution such as pesticides contained in agricultural runoff and the lead and mercury contained in urban street runoff.

For point sources, the amendments set these regulations:

1. By July 1977 all dischargers other than municipal sewage treatment plants must have achieved effluent limitations based upon the "best practicable" pollution control technology currently available, and public treatment works must have achieved limitations based upon secondary treatment.

2. By July 1983 nonmunicipal point sources must have the

"best available technology economically achievable" in operation, and municipal sewage treatment plants must have installed the "best practicable waste treatment technology."

3. Special effluent standards for toxic water pollutants must be based solely on environmental and safety considerations and must be met substantially before the 1977 deadline.

4. New source performance standards based upon the "best available demonstrated control technology" must be met by all new facilities or installations.

5. Special effluent restrictions for particular dischargers based upon existing water quality standards must be employed whenever it is apparent that application of the toxic and technologically based standards described above will not achieve water quality standards in a given basin.

6. These effluent restrictions must be applied to point sources through a permit program--the National Pollutant Discharge Elimination System (NPDES)--administered either by EPA or the states. The 1972 amendments contain strong monitoring and enforcement provisions, including

provisions for citizen suits, for ensuring that permit conditions are actually met.(45)

Section 208 of the amendments sets out regulations for nonpoint sources (see description of Section 208 below). This section mandates the preparation of areawide comprehensive plans to control nonpoint source pollution and to regulate the location of facilities which could result in pollution. The plans must be prepared by designated areawide agencies or by the state. So this provision clearly gives strong support to regional land use planning. More than three-quarters of the designated 208 agencies have been regional government structures.

Plans are submitted to the Administrator of the Environmental Protection Agency for approval and then are carried out by local and state agencies. The importance of intergovernmental cooperation is obvious in this legislation. Standards for water quality are set by the federal Environmental Protection Agency and the states. Planning for construction of treatment facilities is the responsibility of metropolitan areas, and authority for land use control is vested in local authorities. The key to Section 208 plans has been the design of a cooperative decision-making and management method appropriate to each 208 area.

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(45) Elaine Moss (ed.), op. cit., p. 70.

2. Local, State & Federal Responsibilities

As noted above, intergovernmental cooperation is fundamental to the Water Pollution Control Act Amendments, and in particular to the development and implementation of the water management programme of Section 208.

Federal Government: The Federal role under Section 208 is confined to assuring that proposals for meeting area-wide problems are developed and carried out. Federal agencies, such as the Soil Conservation Service, provide expertise to local 208 planning efforts. The advisory committees established by 208 authorities include representatives from the Departments of the Interior, Agriculture and the Army Corps of Engineers. Often, portions of the funds allocated to particular 208 efforts are assigned to federal agencies which then carry out analytical work for local authorities.

The States: State government is responsible for establishing water quality standards, setting priorities for construction of treatment facilities, and issuance of the permits required for discharge of effluent into water bodies. In designated 208 areas, the state monitors and cooperates with the efforts of the designated agency. In areas which the state does not designate as 208 areas and where there is therefore no designated agency, the state itself is responsible for all

water quality planning.

Local Government: Within designated 208 areas, local governments develop and implement the areawide plan. They pass development control regulations and set drainage system standards in order to implement the areawide plan.

Not only is Section 208 planning a matter of intergovernmental cooperation, but also it is an exercise in coordination among various federal programmes.

> Governments in metropolitan areas have had one federal planning assistance program after another hurled at them in recent decades. If Section 208 merely adds to this agglomeration, it is unlikely to receive sufficient attention to achieve its objectives. For this reason, a major emphasis of 208 is the integration of the water quality related elements of several assistance programs. Primary among these are the 701 comprehensive planning program of HUD and the Coastal Zone Management Program (CZM) under the National Oceanic and Atmospheric Administration (NOAA) in the Department of Commerce. A land use element is required by August 1977 if planning agencies are to continue to receive funding under the 701 program. These land use elements will include growth policies which should be carried out by ordinances and/or administrative procedures. Similarly, the CZM plans are to include decisions about permissible land and water uses in the coastal zone. Such uses are to be insured through regulatory mechanisms, involving states as well as local jurisdictions. The HUD and CZM programs, therefore, will include many of the same elements--zoning, subdivision and critical areas regulations--that are likely to comprise a part of the 208 plan's regulatory program. Together, these three programs will have a considerable impact on regional development. But they can only have a positive impact if they are basically consistent, and are developed in conjunction with the local jurisdictions

that will play a key role in their implementation.[46]

3. The Section 208 Programme

Section 208 is the most significant component of the Water Pollution Control legislation in terms of land use planning. The section states that water quality management plans must be prepared for all areas of each state. These plans are aimed at achieving the general goal of assuring water quality suitable for recreation and marine life by 1983.

Other characteristics of 208 plans are:

- They must be carried out on an areawide basis either by the state or by an agency in a designated area, which is usually made up of a number of local government jurisdictions. "Designated Agencies" generally carry out plans in metropolitan areas, while the state generally does the planning in more rural areas.

- Plans must take into account all possible methods for reducing water pollution. This requirement means examining all sources of pollution. In many cases, it may be advisable to focus on changing land use practices in order to reduce nonpoint pollution rather than constantly aiming at improved techniques for marginally

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(46) Mark Pisano, "208: A Process for Water Quality Management" in Environmental Comment, January, 1976, p. 15.

reducing pollution at individual pipes and outfalls. Section 208 provides the only authorization under federal law for controlling nonpoint source pollution.

- The 208 procedure must result not only in a plan but must designate agencies to implement it.

- Plans and implementation programmes must be reviewed continually, thereby assuring development of a strong management capability.

Section 208 is the key section in the Act because plans developed under this section serve as the basis of implementation of all programmes under the Act. Once a 208 plan is approved by the Environmental Protection Agency, all grants for construction (Title II), permits for effluent discharge (Title IV), and the management programs for nonpoint source control must be in accordance with the 208 plan. This section coordinates all other sections of the Act.

Section 208 plans are meant to be practical and implementable, so each geographical area is directed to focus on problems which are significant and which can be solved. The main elements of the plan are:

- description of the planning area
- evaluation of water quality problems in the area
- description of existing and proposed land use patterns

- inventory of sources of pollution, both public and private
- assessment of nonpoint sources of pollutants
- storm sewer requirements
- description of existing and needed local/state regulatory problems
- an environmental, economic, social impact assessment of the plan.

The far-reaching aims of the 208 programme have been both its strength and its weakness. It is a strong programme in that it attacks not only point sources of water pollution but also broader nonpoint sources. It confronts directly the link between water quality and regional land use planning. It also attempts both to mount a region-wide approach to water quality problems without creating new bureaucracies and to encourage intergovernmental cooperation. It is in fact not a federal program, but one which requires the capabilities of all levels of government.

The weaknesses and criticisms of the programme have also been apparent. Implementation of the Water Pollution Control Act Amendments was slow. The priority which the overall planning of Section 208 was supposed to have became lost in a welter of permits, facilities plans, surveys, etc.

The Environmental Protection Agency was slow in implementing Section 208 both because of the cost of the programme and because of the federal administration's reluctance to become directly involved in land use legislation. At the same time, many states were unenthusiastic about what was seen as federal intervention into land use planning and management. "Unlike most existing federally-funded substate regional entities, 208 agencies have the authority to carry out their plans. It is easy to see how a local jurisdiction might resist surrendering its sewer planning authority to an area-wide organization..."(47)

The delay in implementing Section 208 meant that the myriad of other facilities plans and effluent permits which must conform to Section 208 plans were also delayed. But the overall concept of the legislation, now that it is underway, provides unprecedented scope for local governments to join together, draw on state and federal expertise, and prepare plans and management systems which are appropriate to the water quality problems of their area. Water quality planning is related to plans for the overall nature of the urban and rural setting. This approach to water quality applies to other complex resource and land planning issues of today.

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(47) Rob MacDougall, "The State's Role in Section 208" in Environmental Comment, January, 1976, p. 16.

E. Proposed Federal Land Use Legislation

National land use legislation was considered by both houses of Congress for a number of years, principally from 1972 through 1975. No national land use act has in fact been passed; however the major proposals are worthy of review, since the volumes of testimony on the various bills reflect the pros and cons of American federal government intervention in land use control.

The purpose of the two major bills, one proposed in the House of Representatives by Representative Morris Udall of Arizona and the other by Senator Henry Jackson of Washington, was to encourage states to set up comprehensive land use planning programmes. The Udall Bill, titled the "Land Use and Resource Conservation Act of 1975" aimed at encouraging conservation of natural resources, authorizing grants to states for land use programmes, coordinating federal actions regarding land use, and requiring land use planning for publicly-owned land. The bill stated that states would provide 25 percent funding and the federal government would supply the remainder.

Under the programme, the state would set up a land use planning agency, which could be the body which also administers the Coastal Zone Management Programme. It would develop a programme including an inventory of land and water resources, food producing areas, large development projects, key facilities, and developments of regional impact. It would also assure consistency with

the Clean Air Act, Coastal Zone Management Act and other programmes.

The Jackson bill, titled "Land Resource Planning Assistance Act" was similar to the Udall bill. States would provide only ten percent funding for the first five years of the programme, and 30 percent after that. Jackson's bill contained a specific provision for energy facility siting. The state programme would be required to include an energy facilities plan, dealing with future energy demand, energy conservation measures, required future facilities, the environmental, social and economic impacts of projected energy facilities, etc.

Under both bills, the main purpose of federal review of the states' plans was to insure that land use programmes were actually being prepared. Proponents of both bills stressed that there would be no federal interference with the substance of state plans. In fact, federal activities would be required to be consistent with state plans, so the Act would actually give states an increased measure of control over federal operations in their jurisdictions.

- The Arguments in Favour of the Legislation: Proponents of the legislation argued that land use is a problem with federal, state and local dimensions, and that national leadership is needed to fashion imaginative land use policies. They argued

that there has already been a gradual shift in the American public's awareness of the public right to limit the use of private land. As Udall put it, "...a great deal of future land use regulation will depend on a continuance of the shift in attitudes about 'ownership' of land toward acceptance of the idea of 'stewardship' and on a recognition that development rights are not inherent in the ownership of land itself, but are severable and can be transferred."(48) Udall and others felt that much of the opposition to the bill was created by right-wing organizations' threats that the bill would usurp constitutional rights.

Proponents of the bill argued that only comprehensive land use planning can balance environmental and economic needs. The bill required that all demands for land be given full consideration. The Act intended that states develop a fair process for government decision-making which would reduce, rather than add to, the layers of bureaucratic requirements and delays.

Supporters of national land use legislation also argued that only the broad level of planning mandated in the Act would

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(48) The Honorable Morris K. Udall, "Land Use: Why We Need Federal Legislation," in No Land Is An Island (San Francisco: Institute for Contemporary Studies), 1975, p. 71.

provide the viewpoint needed to create energy-efficient communities in the future. The bill was proposed at the time the Arab Oil Embargo of 1973 was fresh in the minds of both citizens and legislators.

- The Arguments Against the Legislation: Opponents of the national land use bills argued that yet another layer of regulation is not the answer to the complex land use decisions facing Americans. They argued that before adopting government central planning, the results must be demonstrated to be worth the sacrifice in individual liberty. Opponents felt that the criteria for decision-making and the precise types of plans which would be carried out were entirely too vague in the bills before Congress.

  The principal argument against federal land use legislation was an alleged loss of private property rights. The legislation was seen as the last straw in the insidious chain of federal environmental laws which have shifted control of land away from the private citizen and toward public agencies.

F. Coordination of Federal Programs

The above review of United States federal programmes certainly does not cover all aspects of federal regulation of land use. Other programmes, such as the National Flood Insurance Program, the Wild

and Scenic Rivers Act, the Urban Mass Transportation Act of 1964, all influence land use. But the most dramatic recent pieces of legislation are highlighted above.

The fact that a National Land Use Act was not passed is as significant as the legislation that did come into effect. It is evident that the Congress and the President have been willing to regulate land use as a sideline to reducing pollution of air and water and to mitigating major environmental impacts. But they have not been willing to involve the federal government directly in land use planning or in mandating state land use planning. In describing the Environmental Protection Agency's Authority, EPA's Assistant Administrator for Enforcement and General Counsel described the situation well:

> Thus, EPA's regulations, particularly those promulgated under the Clean Air Act and the Water Act, most definitely paint EPA into the large picture of land use planning. It is important to emphasize, however, that the Air and Water Acts are not land use laws, and it is EPA's responsibility to move prudently in this controversial area.
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> What we have are two quite dramatic statutes which say, it seems to me: "Clean up the air and the water and see that they remain cleaned up. While doing so, you will have to impact some of our lifestyles and some of our nation's land use policies. But don't let that impact be too sudden -- or too obvious -- or too great. If we want to put the federal government into the business of land use planning, we'll do so in a more direct manner." (49)

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(49) Remarks by Alan G. Kirk II, Assistant Administrator for Enforcement and General Counsel, U.S. Environmental Protection Agency at the American Law Institute/American Bar Association -- Urban Land Institute Conference, June, 1974. Printed in Environmental Comment, July 1974.

It is interesting to note the direction which new federal regulations and legislative proposals are beginning to take. The legislation of the 1970's recognized the need for broader solutions to environmental problems than simply restricting effluent from individual sewer outfalls or industrial stacks. The 1970's have been a period of awakening to the complexity of environmental problems, the ties between urban and rural development, and the links between industrial technology and the physical world around each industrial development. The legislative history of the decade reflects this far-reaching change in attitudes and a new acceptance of the fact that the manner in which Americans conduct their private and public business profoundly affects the environment of all other Americans.

So the 1970's saw the institution of a welter of environmental regulations and planning requirements. The focus now seems to be shifting toward coordination of these existing programmes. Douglas Costle, the Administrator of the Environmental Protection Agency notes this change:

> With this legislation in place, I believe we are now on the threshold of a new era in environmental protection. It will be an era in which the after-the-fact attempt at corrective action, which has characterized our approach to environmental problems in the past, will give way to an emerging imperative for before-the-fact techniques of resource management and public health protection. We need new interaction, communication, and cooperation among all levels of government which will require a level of

effective planning effort far beyond anything we have seen."(50)

This new viewpoint will require more unity in planning efforts while at the same time respecting the different purposes of each piece of existing legislation. The land use planning and regulation aspects of the various environmental protection laws could become more integrated. One reform is contained in a proposal submitted to Congress for an Integrated Environmental Assistance Act. This Act would allow states to prepare plans for two or more environmental programmes, thus greatly simplifying the current application procedures. A proportion of funds could be transferred among programmes. In fact, some areas of the country have already been coordinating their programmes under the existing water and air quality legislation without the benefit of federal laws encouraging such coordination.(51)

Many other efforts are underway to eliminate duplication among

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(50) Douglas Costle, "Environmental Planning for the 80's," Practicing Planner, June, 1979, p. 8.

(51) For example, see Frederick A. Leif's Description of a combined air and water quality planning effort in California, in Environmental Comment, April, 1977.

planning programmes. The Department of Transportation and the Environmental Protection Agency will be reviewing transportation and air quality plans jointly. EPA has been preparing written agreements with states to tailor environmental programmes to the needs of each state. EPA and the Department of Housing and Urban Development have begun coordinating environmental planning with the Comprehensive Planning Program (Section 701 of the Housing and Urban Development Act). The two agencies will be using common data bases and analytical methods in their programmes. These and other coordinating measures indicate a move toward finding common solutions to the land use and environmental concerns addressed by the large, recently enacted body of federal environmental laws in the United States.

## III. LAND USE CONTROLS AT THE STATE LEVEL

Since President Franklin Roosevelt's "New Deal" of the 1930's, the federal government has been the main force for innovative economic and social legislation in the United States. Lower levels of government have generally been induced through cost-sharing and other methods to take part in these new programmes. As the above review indicates, the federal government has also been a leader in the environmental field. Despite the fact that the federal government's most far-reaching programme aimed at encouraging land use planning at the state level was never enacted, a number of significant state land use programmes have emerged. While some of them, such as state coastal zone plans, are a response to federal programmes, a number have been developed by individual states, often in response to specific problems which have arisen within those states. Florida has had its water shortage, Vermont its second home developments, and Hawaii its loss of farmland to rapid urban development.

The past twenty years, since Hawaii's landmark state land use legislation of 1961, have seen increasing state involvement in land use control. The power to enact laws to protect the health, safety, morals and general welfare of its citizens has in fact always rested with the states, but almost all states have delegated this police power to the local and county governments. Despite the tradition of land use regulation being a purely local matter, the states have now begun to reassert themselves in the land use field. They have passed legislation either setting up comprehensive land use

programmes or addressing specific areas of concern.

It is not possible to generalize about the programmes of all fifty states. The approach taken below is to describe the major types of action taken by individual states and to amplify the description of each of these programmes by use of an example of a particular state which has carried that programme out effectively.

A general consensus has emerged regarding the types of land use regulation which should be pursued at the state level. Very few states have comprehensive land use legislation. Aside from the half-dozen states which do have this umbrella land use control power, the majority of states deal with specific areas of concern. These areas are surprisingly uniform. As of 1976, thirty-eight states regulated strip mining, and thirty-four had energy facility siting laws. All thirty states in coastal zone areas have programmes for coastal zone management. Forty-two states had special assessment laws to reduce the tax burden on farmers and help retain agricultural land. Twenty-two states regulated development in wetlands and twenty-six had floodplain protection laws. More than one-quarter of the states had laws regulating development in critical areas.(52)

Matuszeski notes that these areas of state concern revolve both

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(52) William Matuszeski, "Trends in State Land Use Legislation" Environmental Comment, September, 1976, p. 2.

around environmentally sensitive land areas (wetlands, floodplains) and also around the affirmative siting of facilities such as energy plants. These two types of measures -- the protective and the allocative -- were the components of the federal land use legislation which was never passed by Congress. The states enacted many of the provisions envisioned in that legislation on their own.(53)

Listed below are some of the programmes common to a large number of states. In the main, they are programmes initiated at the federal level and pursued by individual states. Some of these programmes could therefore have been covered in the section on federal legislation. They are covered here simply because the main focus of the legislation is on state implementation.

A. Comprehensive Planning Assistance Programme

The Housing and Urban Development Act of 1954, under section 701, provided grants to state planning agencies "to facilitate urban planning for smaller communities lacking adequate resources." Since 1954, the Act has been amended to provide grants to a wide variety of government bodies -- counties, metropolitan areas, regional planning authorities, transportation planning bodies, and Indian bands.

Under section 701, the Department of Housing and Urban Development

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(53) Ibid.

(HUD) funds up to two-thirds of the cost of planning activities. Every recipient of 701 funds must prepare a comprehensive plan, which is a guide for government decisions concerning

a) the pattern and intensity of land use,

b) the provision of transportation and other government facilities and services,

c) the development and utilization of human and natural resources.

All comprehensive plans funded under 701 now must contain a housing element and a land use element. The land use element should integrate all existing land use policies and serve as a guide to decisions on all matters related to the use of land, such as waste disposal, transportation, coastal area management, and agricultural land preservation. In addition to describing and coordinating all existing land use programmes, the land use element should give a positive outline of where growth should occur, what its intensity and type should be, and when it should occur.

While 701 was initially a programme of funding for states, it became a strong force in the development of regional planning in the United States. In 1975, close to 40 percent of all 701 funds went to areawide planning agencies. The programme has helped to broaden the local, more parochial approach to land use issues which had prevailed previously. An agreement was concluded

in 1975 to coordinate the HUD 701 programme with the Coastal Zone Management Program. The agreement provides that in states with Coastal Zone Management Programs, the coastal area can serve as the minimum area required for land use planning under 701. State planning is thus more effective and less complex in coastal areas.

B. Statewide Land Use Programmes

A number of states have developed statewide land use programmes. The most comprehensive of these are in Hawaii, California, Vermont, Delaware, Maine, Oregon, and Florida. Two of these state programmes are reviewed in detail below to give an indication of the type of involvement which some states have in land development. It is interesting to note that there is no pronounced pattern to the various state plans which have been enacted. Some seek to control critical areas, some focus on open or unzoned areas, some control developments of regional impact or benefit, and still others deal with problems specific to the particular state (tourism development in Vermont, loss of agricultural land in Hawaii, etc.). Some state programmes were influenced by the proposed national land use legislation, which was never enacted. Others are modeled on the American Law Institute's Model Land Development Code. And still others are copied from the programmes developed by pioneering states such as Hawaii and Vermont.

The variety of state approaches to land use controls is to be

expected under the American federal system, where states' rights and independence are jealously guarded. Even though many states face similar problems and even though many have been influenced strongly by the Model Development Code, they tend to incorporate their own styles of government into their approaches to land use control. Florida uses the elected Florida Cabinet as the final appeal body in the state control system. California's coastal zone law is partly a product of the state's tradition of solving problems with single-purpose agencies.(54)

Hawaii

> "Only in the special circumstances of Hawaii, the Adirondack Park, and (to a small extent) Delaware, has state zoning proved to be politically acceptable. The speaker of Iowa's house of representatives jokes that 'We would have trouble putting a map through the Iowa legislature that outlines our present counties.'"(55)

Hawaii was the first state to develop a system of state zoning in 1961, and it remains the major example in the United States today.

In Hawaii, rapid urban expansion was taking up agricultural land at an alarming rate. In 1961, the state legislature responded by establishing the Hawaii State Land Use Commission, composed of nine members appointed by the Governor. The Commission was charged

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(54) Robert G. Healy, Land Use and the States, Published for Resources for the Future by The Johns Hopkins University Press, 1976, p. 156.

(55) Ibid, p. 149.

with zoning all land in the state into three categories. The "urban" classification provided a limited amount of land to allow for orderly growth of existing urban areas, mainly Honolulu. In "urban" areas, local governments are in control and they can impose their own more restrictive zoning.

The commission retains control over land in the second category, "agricultural." Non-farming uses are allowed only by special permit. "Conservation" lands, the third category, are regulated by another state board. They are principally watershed and steeply sloping areas. In 1963, an amendment to the legislation established a fourth category, "rural," which allows residential development on half-acre lots.

Hawaii became a state only in 1959, and its traditions were not similar to those of the majority of states. State government had always been dominant in Hawaii, and local government control was fairly limited. So a strong state land use law was more palatable. Also, the legislative aims of agricultural land preservation and restriction on urban growth were popular with the sugar and pineapple growers, who are a strong force in Hawaii. So the legislation was developed in a far more favourable climate than that of most states.

Still, the statewide Land Use Law has faced considerable opposition

and criticism. There have been complaints that the Commission is open to political pressure and that it has made piecemeal additions to the urban areas. Housing advocates blame high housing prices on the law's restrictive land use provisions. Some county and local governments feel the law has served its purpose and that they can now handle planning and land use decisions on their own.

> "The record shows that the law has been relatively, but not completely, effective in stopping the urbanization of agricultural lands. In the first ten years (1964-74) since the initial mapping was completed--years of exceptionally rapid growth of both Hawaii's population and its economy--the urban district has been allowed to grow by some 30,000 acres, or about 25 percent. Most of this land came out of the agricultural zone, but very little was land of the best quality. Several cases of scattered development might be noted, including the approval of a new town in the heart of Oahu's fertile central plain and the location of resorts and tourist attractions in the conservation zones. Nevertheless, the law has had a striking effect on the pattern of Hawaii's growth, making urban expansion far more compact and orderly than it would have been without the law." (56)

Vermont

New highways built during the 1960's brought the ski resorts of southern Vermont within a 2½ hour drive from Boston and three hours of New York City. Vermont appeals not only to skiers, but it is also famous for its fall foliage and summer vacation spots. The second home industry entered a boom period, so that in the 1960's the state's population increased by 14 percent, more than it had in the previous fifty years. Proposals were made to

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(56) Healy, op. cit., p. 150.

create condominium developments which dwarfed the towns in which they were to be located. The scale and pace of development were more than the part-time rural governments could manage.

This rapid growth threatened the traditional, small-town way of life with its emphasis on farming. It also threatened the Vermont environment -- much of the state is rocky, with only a thin layer of topsoil. Development, particularly the most common type of development serviced by septic tanks, created problems of erosion, drainage, and pollution of well water.

In response to these pressures and the inability of small, inexperienced local governments to deal with them, Vermont became the first state on the mainland to adopt comprehensive land use controls. Act 250, adopted in 1970, created a three-stage, statewide programme to regulate certain types of development. Act 250 gives permit-granting authority to the state Environmental Board. The members of the Board and the eight District Commissions which assist it are appointed by the Governor. The head of the Environmental Board is a full-time, salaried position.

The Board reviews the following types of projects for permits:

- Subdivisions of ten or more lots in parcels of ten acres or less,
- Developments of ten or more units,

- Commercial or industrial projects of more than ten acres,
- All development at an elevation above 2500 feet,
- State and municipal developments of more than ten acres,
- Commercial or industrial developments of more than one acre in municipalities which have no subdivision or zoning ordinances.

Public notice is given of applications for permits and copies of the application are sent to local elected representatives, planning officials and other concerned parties. A public hearing is held. The law specifies that the Board may grant a permit if the development proposed

- does not create undue water or air pollution,
- has sufficient water available,
- will not place an undue burden on the water supply to be used,
- will not cause soil erosion or reduce the capacity of the land to hold water to a dangerous degree,
- will not cause unreasonable transportation congestion,
- will not strain the educational services of the municipality,
- will not strain the ability of local governments to provide services,
- will not have an adverse effect on the scenic, aesthetic, or historic resources of the area,
- is in conformance with statewide plans mandated under Act 250,
- conforms to any adopted local or regional plans or capital programs.

Relatively few permits have been rejected; however, District Commissions have the right to attach conditions to the permits which they grant, and this has been done very frequently. So the system has greatly influenced the nature of development.

Act 250 stipulated preparation of three plans:

- An Interim Land Capability Plan (a statement of general policies and a series of maps showing areas of the state which were physically suited to development),
- A Land Capability and Development Plan (this plan clarified the statutory criteria for granting permits and put forth planning principles for energy conservation, transportation, etc.),
- A Land Use Plan (a plan which establishes the proper use of lands of the state for forestry, recreation, agriculture, and urban purposes).

The first plan passed the legislature in 1972 and the second in 1973, but the third was never adopted. The national economy was poor at the time, tourism had dropped off, the snowfall in Vermont had been light -- making a poor ski season, and the nation was caught by the energy crisis. Public opinion in the state shifted away from supporting further regulations on development.

So the permit side of the Vermont state land regulatory system has been in place for several years and has, in the opinion of

many, contributed to a higher standard of development. But the overall planning component of the legislation has not been fully implemented. The provisions of Act 250 are complemented by a special capital gains tax which Vermont introduced in 1973. It is a graduated tax on the profits, made from the sale of property held for less than six years. The tax is based on the percentage profit and on the number of years the land is held -- beginning at 60% for land held less than one year where profit exceeds 200% and decreasing by 10% each year.

Other State Programmes

It is not possible to cover other overall state land use programmes here.(57) The cases of Hawaii and Vermont indicate two of the most comprehensive approaches to state land use controls. Other states have approached the matter differently. Maine, for example, does not have one land use programme, but several Acts which work together as a system of land use control. These Acts deal with major Maine land use problems: the siting of oil refineries and supertanker ports along the coastline, the construction of second

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(57) For more detailed coverage of state land use regulation measures, see Healy, op. cit., chapters 3 - 6; Moss (ed), op. cit., chapter 12; Phyllis Myers, Zoning Hawaii, (Washington, D.C.: The Conservation Foundation), 1976; and Fred Bosselman and David Callies, The Quiet Revolution in Land Use Control, (Washington, D.C.: Council on Environmental Quality), 1972.

homes in the state, and the need to require localities to initiate land use controls of their own.

Florida's severe drought of 1971 resulted in environmental legislation which focuses on areas of critical state concern such as groundwater recharge areas. The Florida Keys were also designated an area of critical state concern. Developments of regional concern, i.e. large or critically located developments, are also regulated and reviewed by state authorities.

The following sections cover some specific types of state programmes, rather than the overall state planning efforts described above. In each case, one particular state which has instituted the programme is chosen as an example and described in detail.

C. Wetlands Management

While bogs, marshes and other wetland areas were long considered unimportant, marginal pieces of land, they have now been recognized as an important resource. They play a major role in water quality and water supply; they are an important buffer against floods and storms; they are a habitat for fish and wildlife and they are critical spawning areas for many types of fish.

The initiative for wetlands preservation has come from the state level, principally the eastern coastal states, during the past decade. By late 1978, fourteen states had wetlands programmes.

Of those, only Mississippi is not located on the east coast.

There are two main types of wetlands regulatory measures. Most states use a permit system, because it is less expensive and less complicated to initiate. Under this type of system, a permit must be obtained in order to carry out any type of development in a wetlands area.

The second type of regulatory measure relies on restrictive orders. This measure is similar to zoning -- a map is drawn delineating the wetlands areas and various restrictive categories are shown on the map. Restrictions are registered on property deeds and owners are compensated where there is partial or total loss of property value.

Of the handful of states which have instituted restrictive orders, Massachusetts has the oldest and most comprehensive statute. Michael Fix notes four basic elements common to the Massachusetts programme and the other restrictive order systems.(58) The first element is a broad set of environmental protection objectives. The second is a set of due process requirements including notification of property owners affected by the orders, compensation for any "taking" of private property through stringent regulation, and a judicial appeals mechanism.

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(58) Michael Fix, "Protecting Wetlands Permanently," Environmental Comment, July, 1978, pp. 13 - 14.

The third element of the legislation requires registration of restrictive orders on individual property deeds. Fourth, penalty and remedy provisions for violators are provided through the state court system.

Over 35,000 of Massachusetts' 79,000 acres of wetlands are under restrictive order, placing a virtual ban on development in wetlands. The state has settled most claims for compensation out of court, thus avoiding costly trial and legal fees.

The advantages of the restrictive order method of wetlands preservation are that it places a permanent restriction on development which is registered with the deed to the property and that it entails a comprehensive mapping and review of the entire wetlands area. One disadvantage is that the flexibility of the permit system is lost. The permit system allows the permitting agency to attach conditions to the granting of permits, thereby tailoring its approval to a particular situation. A second disadvantage is the expense of setting up a restrictive order system in contrast to the negligible costs of a permit programme.

State wetlands programmes vary greatly in effectiveness, strictness, and administrative ease. In the past few years, the federal government has become more involved in wetlands protection, although the original impetus for the programme came from the states. As of 1975, the Army Corps of Engineers increased

its jurisdiction over dredging and filling to cover all of the wetlands in the United States. Under the terms of 1977 Amendments to the Federal Water Pollution Control Act, the Corps of Engineers and the Environmental Protection Agency may now allow state governments to carry out the federal regulatory role in wetland areas. States will be required to use federal permit standards and to develop enforcement procedures. The federal entry into wetlands preservation is likely to create a more stringent and uniform set of state programmes throughout the United States.

D. Floodplain Protection

Floodplain management is dealt with in the United States by all three levels of government. It is discussed in this section on state legislation because a number of states, including Wisconsin, Iowa and Nebraska, have developed strong, statewide programmes.

The federal government's major role in flood prevention is through the National Flood Insurance Program, established by the National Flood Insurance Act of 1968. This legislation has a strong impact on land use because it requires land use planning in floodplain areas.

The federal programme provides insurance to areas where it was previously unavailable because of high flood risk. The requirement for participation in the programme is that localities adopt

strict land use controls in floodable areas. This approach was a new one for the federal government, which had focused only on building damns, dykes and other flood prevention works. These works could not begin to prevent all floods, and the government ended up paying millions of dollars in disaster relief whenever flooding occurred. Yet development continued in floodplain areas. The insurance legislation aims at curbing that development.

Comprehensive floodplain management involves both preventive and corrective steps. The federal insurance programme provides for subsidized insurance for existing buildings. It also requires that new construction not result in any increase in flood levels during a flood and that it be elevated above the 100 year flood level.

A number of states are carrying out their own flood control programmes and are giving technical assistance to local governments. Minnesota has a strong statewide programme which sets requirements for local zoning and subdivision laws. Zoning ordinances divide floodplain areas into floodway and flood fringe areas. Development is tightly controlled in the floodway section, while more development is permitted in the fringe areas. Local design of the floodway must meet state standards; it can then be included formally in the zoning ordinance.

Subdivision regulations prohibit subdivision of floodable land unless certain standards are met. Restrictions are noted on purchase deeds in order to control land unsuitable for development. Streets, sewer and other facilities must be above the flood level, as must each building site.

Building codes establish special construction regulations in floodplain areas. Regulations include provision for anchoring structures, water-tight barriers over openings, etc.(59)

Minnesota's programme, along with the federal insurance system, demonstrates an emphasis on management programmes which deal with both existing and future flood problems. Whereas at one time, governments built flood prevention works while ignoring or even encouraging continued development in the floodplain, now they have evolved a more consistent approach to land management in floodable areas.

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(59) For more details on Minnesota's programme, see James M. Wright, "Minnesota's Flood Plain Management Program," Urban Land, June, 1973, pp. 14 - 21.

E. Farmland Preservation And Protection

Varying conditions throughout the United States have made it impossible to mandate preservation of farmland at the national level. The greatest opportunities for farmland preservation rest with the states, and it is the states which have enacted the most comprehensive programmes. The state has a broad enough geographical perspective, and it is able to avoid the pitfalls of exclusionary zoning or favouritism which beset local authorities.

Farmland, particularly farmland on the fringe of urban areas, has served as a land bank for urban expansion. It is transferred to other uses because of high property, estate and other taxes levied on farms, the decreasing returns made on food production, and the high prices paid for farm properties by those wishing to develop it for urban purposes. Between 1.5 million and 2 million acres of prime farmland are converted each year to other uses in the United States. This trend is likely to continue because the United States is expected to face a strong demand for housing until the mid-1980's. Changes in housing and other urban demands, and higher food prices could significantly alter this trend though.

One of the main factors contributing to the shift of agricultural land to suburban uses is the method of property tax assessment. Assessments are generally based not on the farm use of the property but rather on the development potential of

the land, i.e. its market value. Many states have addressed this aspect of farmland conversion. They have passed legislation mandating "use-value assessment" of land which farmers agree to keep in agricultural use. Under most programmes, the participating farmer signs a contract stating that he will continue to farm the land for a certain period, usually between five and ten years. If he does not abide by the contract, he must pay a tax penalty.

Wisconsin is one state which has enacted a farmland preservation programme. Wisconsin legislators reviewed carefully the work of other states -- New York, New Jersey, California, and Michigan -- and attempted to draw on the strong points of programmes underway in those states. The Wisconsin Farmland Preservation Act, passed in 1977 and amended in 1978, combines tax relief measures with incentives for comprehensive planning.

Wisconsin state income tax relief is available through 1982 to farmers who sign a contract with the state. A farmer must have resided in the state for a year and owned the land at the end of the year for which he claims tax credit. He must own at least 35 acres of land which has produced $6,000.00 or more of agricultural products during the year. The farmer must also have a Soil Conservation Service farm plan for his property.

An interesting facet of the programme is the link between tax

credit to the individual farmer and the planning efforts of the county in which his farm is located. The actual credit a farmer receives is only 50 percent of his potential credit if the county in which the property lies does not have an approved agricultural preservation plan or an exclusive agricultural zoning ordinance. "Farmers whose land is in an exclusive agricultural zone can receive 70 percent of the maximum credit and 100 percent if the county has both planning and zoning." (60)

County agricultural preservation plans must contain policy statements on farmland preservation, development, public services, and environmentally sensitive areas. They must outline a farmland preservation programme and provide maps of agricultural areas.

The Wisconsin programme involves income tax credit and it therefore does not affect local property taxes. Most states have opted instead for differential assessment of agricultural and timber land.

Other state programmes have dealt with other aspects of the farmland preservation problem. The problem of incompatible uses adjacent to farms creating rural-urban land use conflicts has been dealt with through agricultural districting laws. New York,

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(60) Peter W. Amato, "Wisconsin Hopes A New Law Will Preserve Its Farms," Planning, January, 1979, p. 11.

Oregon and California encourage the creation of large farming areas so that the possibilities for friction between rural and urban dwellers are reduced. The problem of high bids from competing land users has been handled in some states through creation of exclusive agricultural zones with minimum lot sizes as high as 80 to 100 acres.(61)

It is generally acknowledged that single purpose programmes are not sufficient to preserve farmland. Wisconsin's programme combines income tax relief with planning and zoning. Capital improvements programmes, tax incentives, zoning and other programmes, must be used in combination in order to support the farming economy as well as to preserve the land.

F. Other State Programmes

A number of other state programmes which affect land use should be mentioned briefly.

- Coastal Zone Management

  This programme is covered in detail in the section on federal legislation. All states eligible to participate in this programme have applied for funds. A few states have completed the first planning phase of the programme and are now receiving funding for the implementation phase. Some

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(61) See John C. Keene, "Keeping Farmers Farming," Environmental Comment, January, 1978, for a discussion of techniques for farmland preservation.

states, including California and Delaware, have passed their own, more stringent coastal zone acts.

- Critical Areas Programmes

  Some states have legislation to protect areas that are ecologically fragile and areas that will experience strong pressures for development. New York has established the Adirondack Park Agency, California has its San Francisco Bay Conservation and Development Commission, and New Jersey its Hackensack Meadowlands Development Commission.

  Other states have developed more general programmes to protect a wide variety of critical areas. Minnesota's legislation provides for administrative designation of critical areas. Local areas then adopt regulations for those areas; local regulations are reviewed and approved by the state.

- Water Resource Protection

  As described earlier, the Federal Water Pollution Control Act Amendments of 1972 provide for a programme of permits for discharges of pollutants. This programme may be administered either by the federal Environmental Protection Agency (EPA) or by the state. Many states have sought authorization from EPA to act as the permitting authority. The state then issues permits to industrial and municipal dischargers of pollutants

into waterways, enforces permit conditions, and fines violators.

- The A-95 Clearinghouse

  The Intergovernmental Cooperation Act of 1968 set up the A-95 project review system in order to identify early any conflicts between federally assisted projects and the plans of states and localities. A clearinghouse agency in each state reviews all applications for federal assistance to development projects. If the clearinghouse finds that the proposed project conflicts with existing plans; the staff then try to resolve conflicts with the developer and they forward their comments to the federal agency which receives the application for funds.

- State NEPA's

  Several states have systems for reviewing the environmental impacts of major projects, based on the federal system created by the National Environmental Policy Act (NEPA).

- Power Plants

  Some states require that permits be issued for the location and construction of power plants. The permit process is designed to ensure that the plant location is not harmful to the environment and that the facility is needed. A public hearing is held before a permit is granted. In some states, granting of a permit overrides all other ordinances.

It is evident that the states tread a delicate middle ground between federal legislative requirements and a long tradition of local control over land use. The Standard State Zoning Enabling Act passed by most states in the 1920's delegated to municipalities the power to zone land. States thus divested themselves of much of their interest in and power over land control.

But with the emergence of a strong federal role in environmental protection during the past ten years, the state has found itself assigned a variety of approving and coordinating roles. As the above sections indicate, however, states have begun to carve out a regulatory area for themselves as well. In general, they have focused on areas of statewide concern. As Bosselman and Callies note, "regulation is not desirable for its own sake. Any system of land regulation imposes substantial costs. These include not only the costs borne by the taxpayers who pay the administrators' salaries and expenses, but the costs borne by the developers and eventually passed on to the consumers."(62)

Because of these costs of regulation, and because of the amount of regulation already imposed by federal and local governments,

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(62) Fred Bosselman and David Callies, The Quiet Revolution in Land Use Control, Washington, D.C.: Council on Environmental Quality, 1972, p. 319.

states which are involved in land use regulation have focused on particular development decisions rather than attempting to deal with all types of land use issues. "A variety of methods are used: In the Twin Cities regulation is concentrated on major capital improvements, such as airports and sewers. Both Vermont and Maine have attempted to define development subject to the state's jurisdiction in a way that excludes small-scale development and concentrates only on development of more significant size. Hawaii classifies development into four basic categories and (in theory at least) the state attempts to decide only the proper category applicable to a particular piece of land, leaving the details to be worked out by the counties."(63)

So the states have begun to reassert themselves into the business of regulating land use, but they are doing so in a carefully focused manner. They are concentrating on the problems unique to their area which they are the best equipped to handle. So far, they are avoiding the bureaucratic snare of continuously expanding their regulatory powers.

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(63) Ibid., pp. 319 - 320.

## IV. THE ROLE OF LOCAL GOVERNMENT IN LAND USE REGULATION

Local government in the United States has traditionally been in control of all land use regulations. As noted earlier, both the federal and state levels of government are relative newcomers to the scene. The authority for localities to regulate the use of land derives in the main from two pieces of legislation drafted in the late 1920's -- the Standard State Zoning Enabling Act and the Standard City Planning Enabling Act. These model codes were adopted by most states to authorize municipalities to establish and enforce zoning ordinances and to establish a planning commission to prepare a comprehensive plan for the development of the municipality.

These standard enabling acts still form the basis for the type of zoning and planning carried out by most municipalities. The traditional zoning has been extended and amplified to include innovations such as "floating zones," planned unit developments, and others described below. But the basics of municipal responsibility to zone and plan remain strikingly similar to what they were fifty years ago.

Two features of the planning and zoning functions have persisted from the period in which they were originally drafted. The first important trait is that these functions are not mandatory. The states have simply delegated powers to local governments, should they wish to use them. In addition to planning and zoning powers, many states have delegated to localities the right to make subdivision regulations, to prepare building codes, capital improvement programmes,

floodplain and wetlands ordinances, and to create open space and historic districts.

The state enabling legislation permits but does not require municipalities to take on any of these functions. Consequently, some municipalities are totally unprepared for any sudden spurts of development. As the earlier description of Vermont's state planning efforts indicates, the small-town municipal governments of that state were totally unprepared for the onslaught of second home development which occurred there in the 1960's. Many towns had no zoning ordinances, and certainly no comprehensive plans.

Recently, several states have passed laws requiring municipalities to prepare comprehensive plans. These states include California, Florida, Idaho, Nebraska, Nevada, Oregon and Virginia. California, Idaho, Nebraska and Oregon have gone a step further. They not only require the plans to be prepared; they require them to be implemented. (64)

A second feature of most of the planning and zoning enabling legislation is that there is no mandatory link between the two functions. The Standard State Zoning Enabling Act stated that zoning "shall be in accordance with a comprehensive plan." But it has generally been accepted that this provision means simply that zoning should not be done piecemeal, but rather that it should be done on the basis of a complete review of local conditions. The zoning itself must be compre-

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(64) Elaine Moss, op. cit., p. 318.

hensive in its coverage of all areas of the municipality. "The early judicial interpretations of the statutes almost uniformly accepted a narrow reading that the comprehensive plan with which zoning must be in accordance could be found within the text of the zoning ordinance."(65)

The Standard City Planning Enabling Act was passed after the Standard State Zoning Enabling Act. Therefore at the time of passage of the Zoning Act, there was no formal, statutory planning process to which zoning could be related. In most cases therefore, the courts have expected only that the zoning ordinance be logical and complete and not that it conform to a separate comprehensive plan.

The two features described above -- the optional nature of the planning and zoning functions and the lack of an explicit tie between planning and zoning -- have been widely recognized as shortcomings in the current system of land use regulations in the United States. "Whatever reasons for the absence of a planning requirement there may have been, it is now apparent that changes in land use control techniques, expansion in the scope of comprehensive planning, and an increasing emphasis on mandatory planning in federal aid programs all underscore

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(65) Daniel R. Mandelker, "The Role of the Local Comprehensive Plan" in Frank Schnidman, Jane Silverman, Rufus Young, Jr. (eds) Management and Control of Growth, Volume IV. Washington, D.C.: The Urban Land Institute, 1978, p. 24.

the need for mandating a comprehensive planning process at the local government level."(66)

The sections below outline the basics of traditional zoning and comprehensive planning at the local level. Other sections describe some of the more recent departures from traditional Euclidian zoning along with some of the other regulatory functions of American municipal governments.

A. Zoning

Since the Standard State Zoning Enabling Act was adopted almost universally throughout the United States, an outline of its contents serves as a guide to the format of most American zoning by-laws. In order to protect the public health, safety, morals and general welfare, municipalities may make regulations covering the following:

- Density of population,
- Location and use of structures and land for trade, industrial, residential and other purposes,
- Size of yards and other open areas,
- Height, number of stories and size of buildings,
- Percentage of the lot occupied by buildings.

The standard act also specifies the purposes for which these regulations are made:

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(66) Ibid., p. 25.

- To insure safety from fire and other dangers,
- To provide adequate light and air,
- To lessen congestion in the streets,
- To prevent overcrowding,
- To avoid undue concentration of population,
- To insure adequate provision of transportation, water, sewers, schools, parks and other public facilities.

Many states have recently adopted the American Law Institute's Model Development Code, which expands upon the fifty year old definition of the purposes of zoning stated above. It adds environmental protection as a valid legislative purpose: "It is the legislative purpose to protect the land, air, water, natural resources and environment of this State, to encourage their use in a socially and economically desirable manner, and to provide a mechanism by which the state may establish and carry out a state land use policy..." (67)

A zoning plan or map divides the municipality into districts and sets regulations for land use within each district or zone. Regulations must apply evenly to all properties within each zone. In general, the zoning ordinance must be adopted by the local legislative body after two public hearings are held. The legislative body appoints a zoning commission which prepares a prelim-

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(67) American Law Institute, "A Model Land Development Code," 1-101, as cited in Elaine Moss, op. cit., pp. 348-9.

inary report on appropriate boundaries and rules for each district and holds the first public hearing on that report. The commission prepares a final report which is reviewed by the legislative body, and that body holds a second public hearing before adopting or rejecting the ordinance.

The standard act provided for a Board of Adjustment to consider special exceptions and variances to the ordinance. These variations were expected to be infrequent and of minor significance.

The intent behind the original legislation was to create a logical, orderly system of land use regulation where the intended use of every property was known in advance and development would occur as a matter of right. But what has happened in the course of time is that municipalities have added to their zoning ordinances a wide variety of provisions which give more flexibility to the developer and more discretion to municipal government.

In practice, municipalities have zoned undeveloped areas, not for residential or commercial or whatever their ultimate purpose is to be, but rather for agricultural or some other category which serves as a holding zone. "What we have now is the widespread use of wait-and-see techniques that provide communities with an opportunity to make final development decisions at the time development occurs. The 'old' flexible techniques -- variances,

special permits, rezoning -- remain, but their uses have been expanded."[68] This marked increase in discretionary zoning is a distinct departure from the classical, Euclidian zoning where all uses and zones are clearly defined from the start.

There are a number of reasons for the departure from the standard zoning regulatory format. The traditional zoning plan is rigid. While this rigidity makes for a predictable development pattern, it does not allow a municipality to adapt to changing conditions and it certainly does not allow for larger scale, innovative developments. All development must conform to the lot-by-lot grid into which the zoning and subdivision ordinances have divided the municipality.

New zoning techniques, such as floating zones, enable municipalities to accommodate mixed-use development and large scale developments with innovative site designs.

Not only are larger scale, more sophisticated developments being proposed now than fifty years ago, but the objectives of zoning have broadened. The police power to regulate development for the public safety and welfare has been expanded. The courts have included equal housing opportunities, aesthetics, and environ-

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(68) Michael J. Meshenberg, "The Administration of Flexible Zoning Techniques," in Frank Schnidman, Jane Silverman, Rufus Young, Jr. (eds), op. cit., p. 34.

mental quality among the purposes of public regulation of land use. In addition, regional agencies, states and the federal government are now all involved in the regulation of land development, a matter with which they were not concerned fifty years ago. This increasing sophistication and complication of the development process has resulted in the introduction of more flexible land controls to cope with each unusual development proposal on its own merits.

While traditional zoning has been criticized as responsible for "cookie-cutter" subdivisions and other dull aspects of the urban landscape, the introduction of flexible zoning has been blamed for a proliferation of permits and red tape. Many developers complain of interminable delays and capricious decisions regarding their development applications. Because of the arguments for and against flexible zoning, new emphasis has been placed on comprehensive planning. Because almost everyone admits that some flexibility in zoning is needed, the importance of some overall guiding plan has come to the fore. "What we need now is planning that guides decision makers in making discretionery decisions. Sometimes maps may be in order, but more often policies must be stated, clearly and explicitly, about how much and what kind of growth the community wants, and where and under what circumstances it should go."(69)

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(69) Meshenberg, op. cit., p. 42.

B. Flexible Zoning Techniques

Many of the flexible zoning techniques recently introduced in the United States exist in Canada as well. The most common types are described briefly below.

- Floating Zones

Floating or unmapped zones are areas with a set of purposes defined in the zoning ordinance but without specific boundaries delineated on the zoning map. When there is an opportunity to carry out the intent of the floating zone on a particular tract of land, the council or other legislative body amends the zoning ordinance to specify the boundaries of the zone. For example, the legislative body may create a floating zone for a large shopping centre development. It considers such a district desirable but wishes to wait until a proposal is made for a particular location.

- Average Density Zoning

Average density or cluster zoning involves relaxing the standard regulations on front and side yard size in a large development where the total density will be no greater than if the entire tract had been developed on a lot-by-lot basis. This method involves the clustering of dwelling units on part of the site to provide larger, more usable areas of open space on the remainder of a site. Roads, sewers and other facilities can be provided more economically to this compact type of development.

- Planned Unit Development

Planned Unit Developments, or PUD's, are large, comprehensive developments which include not only a variety of residential types but also some commercial uses. The municipal council must enact zoning regulations permitting PUD's as a floating zone. These regulations set out fairly strict standards for creation of a PUD, including the amount of land required, amount of land to be covered by buildings, type of water and drainage systems, etc.

When the legislative body wishes to approve of a PUD, it amends the zoning ordinance to show the boundaries of the PUD. Unlike a cluster housing zone, which usually conforms to the prevailing residential density, PUD's usually are at a higher density.

Generally, the developer of a PUD works closely with municipal planners and legislators in creating the plan for his tract of land.

- Transferable Development Rights

Transferable Development Rights (TDR) are a relatively recent innovation which have been tried only in a few American cities. TDR treats the right to develop land as a marketable commodity which can be severed from a particular piece of property.

To use TDR, a municipality establishes conservation zones and transfer zones. No development is allowed in the conservation district, and the development potential of that zone is shifted or transferred to the transfer zone. Maximum densities are specified for the transfer zone, but they may be exceeded if an owner purchases development rights from a property-owner in the conservation zone.

> TDR not only meshes law, equity, and economics, but also brings together the legal principles used in areas where transference of development potential is presently used: air rights transfer, sale of water rights, and oil and gas production regulation. As in these areas, TDR views the right to development potential as something severable and transferable from one specific parcel of land to another.
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> TDR is also an expansion of the cluster subdivision and PUD concepts. Rather than just the specific parcel, however, TDR envisions a type of "community cluster" or "community PUD." Overall community density under TDR stays the same; it is the location of that density within the community which changes.(70)

TDR has been used for the preservation of historic structures, where the development potential of the historic building's site is transferred to an adjacent site. This concept has been expanded to allow development rights transfer to sites within a TDR district which are not necessarily adjacent to the conservation site.

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(70) Frank Schnidman, "TDR: A Tool for More Equitable Land Management," in Schnidman, Silverman and Young, Jr., op. cit., p. 53.

TDR has been used for other preservation purposes as well, including agricultural land and open space preservation.

C. Planning

As mentioned earlier, the Standard State Planning Enabling Act was passed shortly after the standard zoning act. Most of the state legislation passed pursuant to this act focused narrowly on planning for public facilities and land use.

In most states, the enabling legislation calls for the establishment of planning commissions or boards, made up of citizens who are appointed by the mayor or council. The technical planning work is usually carried out by a professional staff which reports to the commission.

The Commission is charged with preparation of a comprehensive plan to guide the future development of the municipality. In general, these plans are advisory only. But in many cases, the plan is adopted officially by the municipal council. In these cases no public improvements can be made which contravene the plan.

D. Subdivision Control

In addition to the planning and zoning functions, most states have given municipalities the power to regulate land subdivision. Municipal subdivision ordinances generally insure that

roads, sewers and other facilities, including park land and land for schools, are provided in developments. The subdivision plan usually must be presented at a public hearing and it must be approved by the local planning board.

E. Other Common Local Land Use Regulations

Municipalities carry out many other functions which affect land use. In many states, municipalities are empowered to prepare building codes. These codes regulate the type of building materials, wiring and plumbing to be used in buildings.

Municipalities also prepare capital improvement programmes which describe the roads, community facilities and other projects which the municipality will carry out over five years. The importance of the capital improvement programme as a tool to regulate land development and use was underlined by the case of Ramapo, New York. The significance of Ramapo's programme is described in the following section.

F. Growth Control Measures - New Tools and New Controversies

Many municipalities, particularly those in such high growth areas as San Francisco, Washington, D.C., and the Miami area, found themselves unable to cope with the rapid rate of residential development through the traditional zoning techniques available to them. In the 1970's, a movement to control and limit growth developed in many areas, and a number of techniques were developed to slow or halt

residential development. These techniques range from hastily conceived stop-gap measures to sophisticated, comprehensive management programmes which have withstood numerous court challenges.

A great deal has been written about the use of growth control techniques.(71) This section serves to highlight interim development controls and sewer and water moratoria as some of the major growth control measures used in the United States. It summarizes the main components of two of the most well-known and extensively litigated long-term development control programmes -- those of Petaluma, California and Ramapo, New York.

Interim development controls are as old as zoning itself, but they have been used very little until recently. The purpose of interim controls is to protect the planning process by keeping a lid on development until planning is completed. A temporary ordinance is passed which prevents further development until the plan is completed and permanent controls are in place to carry out its intent.

The courts have generally not permitted a complete ban on development, so municipalities have had to specify in their interim ordinances what limited types of development will be permitted while the interim ordinance is in effect. Interim controls have generally

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(71) See Management and Control of Growth, Volumes I - IV, op. cit., especially Volume II which focuses on specific techniques.

been used by municipalities while they draft comprehensive growth control ordinances. The courts have upheld these measures only for a period of time commensurate with the complexity of the permanent ordinances being drafted.

During the past few years, sewer moratoria have become one of the most commonly used techniques for growth control used by suburban areas. The technique has been used mainly by suburban areas because they have been the focus of the most rapid residential development. A moratorium is applied in response to insufficient capacity in sewer transmission lines, use of the same transmission system for sewage and storm drainage, insufficient treatment facilities resulting in pollution of ground water, and other inadequacies in the system. When moratoria are instituted for these reasons, there is a commitment to alleviate the situation within a given time period. The moratoria are viewed as temporary.(72)

Rivkin describes the different forms which sewer moratoria take. In all of these forms, building is allowed to continue until existing permits run out:

- A freeze on new sewer authorizations (extension of trunk lines to new areas),

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(72) Malcolm D. Rivkin, "Sewer Moratoria As a Growth Control Technique," in Scott, Brower, and Miner (eds.), op. cit., Volume II, p. 473.

- A freeze on new sewer connections (the hookup of buildings to an existing trunk line),
- Freeze on issuance of new building permits or on a particular type of building permit,
- Freeze on subdivision requests,
- Freeze on rezonings or zonings to higher than current density levels,
- A slowing down or quota allocation of any of the above in a particular area.(73)

Moratoria have been levied because of other types of shortages or inadequacies, such as Marin County, California's water shortage or San Jose, California's shortage of classroom space, but sewer moratoria remain the most frequently used vehicle. Rivkin attributes the predominance of sewer moratoria to the fact that sewerage has become a far more significant item in municipal budgets and priorities in the 1970's than they were in the 1960's. Growth has been at higher densities, requiring more sophisticated waste disposal than the septic tanks used in many low density suburban developments of the 1950's and 1960's. Environmentalists and environmentally concerned citizens have brought pressure to bear on elected officials to hold up new sewer construction pending development of new water quality standards and new growth policies. Sewer moratoria have become a key tool for the no-growth and slow growth movements.

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(73) Ibid., p. 474.

Federal Water Pollution Control legislation described earlier has also brought sewerage issues to the fore, since a major cause of water pollution has been inadequate treatment of sewage. The requirements for higher standards of sewerage system construction and advanced waste treatment plants have moved sewerage expenditures from a relatively minor item in municipal capital budgets to a major one.

The early 1970's saw a proliferation of sewer moratoria within a short period. Rivkin cites a 1973 United States Department of Housing and Urban Development survey which found that 70 percent of the sewer moratoria then in existence had been imposed during 1972-1973. The moratoria were expected to last for long or indefinite periods.(74)

The results of these moratoria were not entirely those anticipated by policy-makers. "Far from giving impetus to reconcentration in central communities, the moratoria were encouraging sprawl by sending builders to jurisdictions that were not so strict on service provision and where land was cheap. People were getting houses, but at the expense of even longer driving times and an even more inefficient pattern of urban growth -- hardly what the environmentalist advocates of moratoria anticipated." (75)

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(74) Ibid., p. 478.

(75) Ibid., pp. 478-9.

In some areas, moratoria have provided an impetus to infilling of vacant lots that have been skipped over by development. But they have principally had negative effects, including discrimination against high density, more cost and energy efficient types of housing, and the creation of erratic housing markets characterized by sudden bursts of building when controls are first imposed, followed by slumps.

If moratoria are followed by introduction of comprehensive schemes such as those of Ramapo and Petaluma, the air is cleared of uncertainty. If moratoria are imposed and left for extended periods, they tend to encourage sprawl, create hardship for small developers, and institute a tangle of bureaucratic delays. Rivkin sums up the problem well:

> The sewer moratorium is an example of a regrettable characteristic within the American governmental process--ad hoc, piecemeal efforts to solve a complex problem rapidly by simplistic means. The problems which produce wastewater disposal and treatment deficiencies are far deeper than technical shortcomings in a physical system. They involve fundamental and long-term issues of urban growth and social equity; they involve the process of land speculation, the nature of the building industry, and the political currents being stirred by environmentalists and advocates of zero population growth. Most actions to initiate moratoria have responded to an immediate physical need. Evidence does not suggest that responsible governmental bodies have considered the bulk of the relevant issues--or indeed are taking steps to do so now that impacts are being felt.(76)

Moratoria on the extension of water utilities have been used in

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(76) Ibid., p. 481.

much the same way as sewer moratoria. In the past, most water utilities worked on the premise that water should be extended to whichever areas demanded it. There was relatively little coordination with planning and zoning bodies; water was simply provided on demand.

Water utility officials were startled to find that voters were no longer routinely approving bond issues. Citizens of Marin County had passed all Water District bond issues since 1916, until they defeated one in the early 1970's by a margin of 9:1.(77) Water service thus came to be used as a population control method by those who found planning and zoning methods inadequate to the task.

Ramapo

Two controversial growth control programmes have received widespread attention in both planning and legal circles in the United States. They have been described in glowing terms as innovative, comprehensive solutions to complex problems, and they have also been designated as narrow-minded, exclusionary regulations. The basics of the two cases are summarized below.(78)

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(77) William R. Seeger, "Water Planning in a No-Growth County," in Scott, Brower, Miner (eds.), op. cit., Vol. II, p. 459.

(78) The Ramapo and Petaluma cases are covered in detail in a series of articles which provide the perspectives of the lawyers, planners, civil servants and citizens involved in the programmes. See Scott, Brower, Miner (eds.), op. cit., Vol. II, pp. 1 - 187.

The Ramapo ordinance is significant, because in upholding the ordinance, the courts approved the right of government to regulate land development for the purpose of controlling growth. The Ramapo system ties development to the provision of capital improvements. So, as in the cases of sewer and water moratoria, capital facilities and programming are more influential than the classical planning and zoning measures.

Ramapo, a town within commuting distance of New York whose population had doubled between 1960 and 1970, adopted a special permit system for "Residential Development Uses." A permit for development would not be granted unless a developer could prove that specified capital improvements (sewerage, drainage, parks, schools, etc.) would be available by the time the project was completed. These improvements could be provided either by the municipality or by the developer. The town developed a plan for its future growth and had a well-documented eighteen year capital programme based on that plan. The town's schedule for provision of services was thus clearly established; the uncertainties which characterize sewer and water moratoria were not present. The rate at which Ramapo would be providing services meant that some areas of the town would not have permission to develop for eighteen years.

The New York state court upheld the ordinance in 1972, saying that it was not exclusionary, but rather was aimed at providing a "balanced cohesive community dedicated to efficient utilization of

land."[79] The town included in its ordinance provision for low and moderate income housing.

Petaluma

Petaluma, California created a programme to limit growth which varies from the Ramapo model in that it is not tied to capital programming. Petaluma, a city north of San Francisco, enacted ordinances which limited to five hundred per year the number of housing units built in projects of five or more units. Projects of less than five units each were not restricted. The city also established an "urban extension line" which marked the outer boundary of the city's growth for at least a five year period.

Through density controls within the urban extension line, the city set a maximum population figure of 55,000 people, down by more than 20,000 from previous projections of the city's 1985 population.

The 500 unit annual allocation for housing was ruled by the United States Court of Appeals not to be exclusionary because the 500 units were to be divided evenly between single family and multi-family projects, and ten percent of the annual allocation was to be for housing low and moderate income families.

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(79) Golden v. Planning Board of Town of Ramapo, North Eastern Reporter, Second Series, pp. 304 - 305.

The programme was challenged not only on the assertion that it was exclusionary, but also on the unusual grounds that it violated the constitutional right to travel. The lower court, a federal district court in California, found in 1974 that the ordinance did indeed violate the right to travel by limiting the number of people allowed to migrate and settle in the area.

But the United States Court of Appeals reversed the lower court and upheld the ordinance. It stated that the plaintiff, the Construction Company of Sonoma County, in fact had no standing to sue in the case, since it could not claim to represent people allegedly prevented from moving to Petaluma. It also found the ordinance not to be arbitrary or unreasonable. It stated that the definition of the public welfare was broad enough to include the aims of preserving Petaluma's small town character, open spaces and low density population.

The Petaluma and Ramapo cases indicate how far some municipalities have shifted from the fairly uniform concepts embodied in traditional zoning. The standard planning and zoning enabling acts adopted throughout the United States led to the creation of fairly similar land use regulations in most municipalities. In fact, most municipalities still operate on variations of these fairly uniform early ordinances.

But the 1970's have seen the introduction of comprehensive schemes to tie urban development to the availability of utilities and to the ultimate population limits for each locality. The courts seem to figure more prominently than ever before in the regulation of land use. The Petaluma and Ramapo ordinances were fought out at several levels of the judicial system. The combined efforts of planners, public works engineers, lawyers and judges are resulting in increasingly complex programmes which are tailored to the unique situations faced by individual municipalities.

## V. SUMMARY AND CONCLUSIONS

This report has presented what are considered to be the important pieces of land use regulation in the United States today. Clearly, the three levels of government command and operate a large battery of laws and programmes that have a definite impact on land development. However, what a number of practioners have been questioning, is whether this "impact" is the desired goal of American land use policy.

The criticism addressed to all levels of government points to a system that is unnecessarily complex and at the same time ineffective. Development, planning, environmental and legal experts have a number of objections to the current system, and see two key problems which they feel need immediate attention:

- The need to plan for land use and to manage adverse environmental, social, and economic impacts of development has led to a confusing, complex, and often contradictory system of regulations.

- The present regulatory system often fails to accomplish its own objectives, despite the allocation of extensive resources. This failure has resulted in a general reluctance to try innovative development concepts or new regulatory techniques. (80)

Unfortunately, the solution to these two problems involves a level of intergovernmental cooperation that has not been abundantly evident in United States land use regulation to date.

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(80) Paul O'Mara, "Regulation: Where Do We Go From Here," Urban Land, May, 1978, (Washington, D.C.: Urban Land Institute), p. 9.

The trend in American regulation appears to be toward reform of the present system. It is hoped that a simplification of the process will be more efficient and more effective from the standpoint of both the regulatory authorities and the property owners.

Additional trends in land use control involve what is coming to be seen as the number one conflict of the 80's, namely energy needs versus environmental concerns. With depleting supplies of conventional fuels, and the delicate balance between the existing supplies and their respective political environments, a sense of urgency has been proffered to the point of sacrificing environmental concerns. While President Carter is firmly opposed to the "unnecessary red tape, which has plagued construction of some needed energy projects," (81) he fully acknowledges the political power of concerned land use groups. This has led to a series of trade-offs. Energy projects will avoid the "unnecessary red tape" under the Carter Administration. At the same time, coastal areas, agricultural lands and the delicate tundra of Alaska are receiving continued support and an increased commitment from the federal government. This process of trade-offs is expected to continue with some areas of federal land use programmes being relaxed while others increase.

The other significant trend in land use policy is the increasing number of states who are developing state-wide regulations. While

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(81) Hank Woodhans, "Carter Outlines Environmental Policy," Planning, October, 1979, (Chicago: American Planning Association), p. 10.

this is an obvious course for state regulation to get stronger in response to continual prodding from federal incentive programmes and the inadequacies experienced at the local level, it is not passing unnoticed by the individual rights lobbies. "The point at which a landowner's vested rights end and new land-use regulations begin is currently being debated from Florida to California,"(82) and it will continue to be one of the principle issues of land use policy, especially in conjunction with such far-reaching legislation as state-wide land use.

Relevance for Canada of U.S. Measures

The shift in focus of land use regulations to the mid-government level is also occurring in Canada. Provincial governments are retracting delegated regulations, and are calling for increased input in the form of such changes as approving official community plans and controlling agricultural lands. Direct regulation by senior governments in both countries is limited by the division of powers. With the exposure of the problems at the municipal, county or district level, and the awareness of our environmental sensitivity, the shift in emphasis to state and provincial authority has been both inevitable and necessary.

Although there are basic differences in the public's attitude to their

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(82) David Callies, "Honolulu Meeting Forum on Land Use," Planning, October, 1979, (Chicago: American Planning Association), p. 11.

property rights and in the real property laws of both countries, the environmental concern is present on both sides of the border. Thus, land use controls in Canada and the United States have both recently focused on the impact of urban pollution and the preservation of farmlands and breeding grounds. Clearly, the United States is well ahead of Canada in terms of the number and types of land use regulation, however, this does not mean that their system is any more efficient or effective. Canada can benefit from the organizational morass to the south by acknowledging that a system that is both simple and effective should be a primary goal. At the same time, elements of various American regulations and programmes are applicable to the Canadian scene, and the opportunity exists to study the United States experience for its strengths and weaknesses.

This process of 'selective adoption' has already begun with the creation of the federal Environmental Assistance Review Process, modeled to a certain extent on the Environmental Protection Act of the United States. A further area that is receiving increased attention in Canada is the need for protection of our coastal areas. The California experience in this regard has immediate application for a province like British Columbia. Even though shoreline ownership is not a problem on the same scale as California, the problems of pollution and destruction of wildlife breeding grounds do exist in Canada. Suitable modification of the American experience could furnish British Columbia or the Maritimes with a functional land use regulation for their coastal zones.

There are a number of other areas of land use control where the American experience would have an educational benefit for Canada. However, it is important to recognize that differences between the two countries do exist and carte blanche adoption should be avoided. Accordingly, it is to these differences, and a qualification of some of the U.S. controls that this report now turns for its conclusion. As will become evident shortly, many of the recent innovations in land use and urban development controls in the U.S. derive from problems and underlying legal and political conditions that are fundamentally different from those obtained in Canada. Some illustrations of these basic issues will serve to reinforce the point noted in the introduction: the use of the U.S. based controls surveyed in this report in a Canadian context must be done with extreme care and sensitivity.

First, much of the rationale for the recent proliferation of land use controls has been lacking in Canada. The fiscal and exclusionary features that are so much a part of the United States' land use controls are not present in Canada nearly to the same extent, if at all. For example, no study has yet been able to document discrimination in housing markets based on race or ethnic background in Canada. Yet such discrimination has been widely documented in the United States and indeed provides a good deal of the impetus for recent perversions of zoning and recent growth limiting land use controls.

Second, even where there is some congruence between the American and Canadian situations, the tools available to Canadian planners and policymakers differ considerably from those of their American counterparts. Several examples come to mind. Farmland preservation in the United States has taken a very convoluted course including the several tax schemes noted above as well as the development of Transferable Development Rights (TDR's). These indirect, cumbersome, and usually ineffective approaches are necessitated by the Fifth Amendment guarantees of rights to property in the United States Constitution. A direct solution such as zoning, or the placing of restrictive covenants on farmlands has been deemed to constitute a taking and thus requiring compensation. In Canada, and under the common law, there are no similar protections of rights to hold and use property. In the case of farmland preservation in the Province of British Columbia the provincial government merely designated all suitable land (as defined in the British Columbia Land Commission Act) as usable for farm purposes only. No compensation for this restriction was permitted. As a result of the very different status of property rights in the Canadian context, it is essential that one views land use controls in this context and not in the American context where constitutional restrictions have usually forced land use planners and policymakers to take circuitous solutions to problems that can be dealt with in a direct straightforward manner under Canadian law and real property institutions.

A third area of distinction lies in the need for and role of intergovernmental coordination in the development and administration of land use and urban development controls. The need for coordination is much greater in the United States for two important reasons. First there are many more governments to deal with than in Canada due to the proliferation of special purpose districts, school boards and the fragmentation of municipal government (for example in 1972 Seattle with 1.4 million people had 246 local governments whereas Vancouver with 1.1 million people had just 46 governments including all of the special purpose functions of the Greater Vancouver Regional District as separate governments). Second, because the provinces are supreme with respect to local government affairs they have tended to delegate most of their authority directly to municipalities or regional agencies. There is no large-scale federal presence to be contended with in Canada. Thus, what minimal federal presence there is is dealt with through the provincial ministries of municipal or urban affairs, thus coordinating and vetting the federal policies at a high level where it can then flow down to municipalities in a reasonably coherent form. Third, where coordination has been an issue, it has been dealt with by the provinces in fairly potent fashion. The Metro Toronto experiment of 1953 is still going strong. The British Columbia regional districts dating the late 1960's provide another model of intraregional coordination. Finally, Winnipeg's Unicity from 1970 represents the most dramatic coordinating effort, resulting from provincial dissatisfaction with municipal

fragmentation in the Greater Winnipeg area. The Province of Manitoba simply amalgamated the 16 or so local governments into one new city government. Such straightforward (and often draconian) measures are largely not available to United States state governments in practice. While they do have control of cities and local government in theory, just as provinces do in Canada, in fact the American penchant for local control has implied the myriad of local governments that have come to exist in the United States and this penchant has effectively precluded forceful state actions to consolidate and coordinate land use and other planning activities at the regional level. A final distinctive difference between the United States and Canadian need to coordinate and consolidate local government actions with senior levels of government, derives from the fiscal health of the separate local governments in the two countries. Canadian local governments are generally in sound fiscal condition. The same cannot be said for United States local governments. This fiscal need at the local level in the United States has prompted many municipalities to opt for a system of fiscal zoning to ensure budgetary viability. It has also led to the need for increasing percentages of federal and state support (47% of local government revenues come from their own sources in the United States whereas in Canada the equivalent figure is 75%) and thus the need for regional intergovernmental coordinating agencies to rationalize the distribution and use of these funds.

What all of the above differences are leading to is that there appear to be some deep-seated and fundamental differences in the powers of

local governments in the United States and Canada and in the political culture of the population in having these different powers exercised. In general, Canadians are willing to see greater restrictions on individual property rights than are Americans. This willingness expresses itself in a different mix of planning and land use policies in Canada deriving from the different legal and real property institutions, which in turn reflect these underlying cultural, legal, political and social differences. Any discussion of the American land use and urban development controls must be tempered by a realization of these differences, as they can explain significant portions of the observed differences in approaches to controlling land use in the two countries. The review of American controls presented above should be placed in its proper context to be used appropriately. These institutional and cultural differences are an essential component of that context. Thus the preceding discussion was carried out at some length to provide this context and to inform the reader of potential pitfalls in uncritically drawing Canadian conclusions from the United States experience presented in this report.

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