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THE NATIONAL FLOOD INSURANCE PROGRAM —A MODEL ORDINANCE FOR IMPLEMENTATION OF ITS LAND MANAGEMENT CRITERIA

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INTRODUCTION

In 1973 the Congress of the United States enacted the Flood Disaster Protection Act which greatly expanded the available limits of flood insurance coverage. The act also imposed new requirements on property owners and communities desiring to participate in the National Flood Insurance Program (NFIP).

As a result, after March 1, 1974, property owners in communities where flood insurance is being sold must purchase such insurance to be eligible for any new or additional federal or federally financed assistance for any construction located in areas identified by the Department of Housing and Urban Development (HUD) as having special flood hazards. In addition, all identified flood-prone communities must enter the program within one year after formal notification that they contain special flood hazard areas in order to qualify their citizens for federal financing of future construction. In order to enter the program, communities must adopt and submit required land use controls which govern flood plain management and apply to all areas identified as flood plain areas having special flood hazards. Such land use controls are not self-executing, but require the enactment of local ordinances for their implementation. This article offers a model ordinance designed to provide a possible means for meeting that need.¹

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1. One of the most serious flood hazards in the coastal zone results from hurricanes, yet there are very few sources available to assist communities in developing management plans to minimize these hazards. The Florida Coastal Coordinating Council (CCC)—now the Department of Natural Resources, Bureau of Coastal Zone Planning—expressed a desire to have such

As background for a better understanding of the 1973 Act and the model ordinance, a history of the development of the National Flood Insurance Program will be set forth in part one of this article. This will be followed in part two by an analysis of the National Flood Insurance Program in its present form. Part three will discuss the problem of whether regulation under the Flood Disaster Protection Act and implementing state and local legislation would constitute a "taking" of regulated property in violation of state and federal constitutional provisions against such takings. Part four sets forth the model ordinance with commentary including citation of sources from which the various provisions of the model were developed.

THE NATIONAL FLOOD INSURANCE PROGRAM

History and Purpose

Floods have been and will continue to be one of the more perplexing problems to confront the people and government of the United States.² They cause both loss of life and loss of economic resources.³ An understanding of the history and purpose of Congressional action in this area requires a brief discussion of the primary issues involved: flood loss causation, economics, and public policy.

Today, flood loss is generally regarded as being caused by man himself.⁴ It is obvious that if man did not abide upon the flood plain there would be no losses due to floods.⁵ This approach is a departure from the earlier inclination to blame nature for floods and attempt to control flood losses by controlling nature.⁶ However, to treat human

assistance made available to coastal communities. It encouraged the authors to undertake a project with funding by the Sea Grant Program of the National Oceanic and Atmospheric Administration, Department of Commerce (Grant No. HJ-2), and the Florida Coastal Coordinating Council to develop a model ordinance that would comply with the provisions of the NFIP and adequately cover the hurricane flooding problem. The ordinance that was finally developed is set forth at the end of this report. It takes into account both coastal and inland flood situations.

Research for and development of the model ordinance was undertaken with the assistance of Janice Burton and Tatjana Ostapoff, University of Florida College of Law, whose assistance is gratefully acknowledged. The assistance of those students participating in a two-quarter seminar on the problems associated with flood plain zoning and the NFIP held during the Winter and Spring quarters of 1975 at the University of Florida College of Law is also gratefully acknowledged, particularly the work of George P. Daniels and Michael T. Hensick on the history and development of the NFIP, and that of Duane E. Thomas and Anthony J. O'Donnell, Jr. on the taking issue portions of which are incorporated herein.

2. 2 Central and Southern Florida Flood Control District, *In Depth Report*, No. 5 at 1 (Nov.-Dec., 1974) [hereinafter cited as 2 *In Depth*].

3. Lind, *Flood Control Alternatives and the Economics of Flood Protection*, 3 *Water Resour. Res.* 346 (1967) [hereinafter cited as 3 *Water Resour. Res.*].

4. Dunham, *Flood Control Via the Police Power*, 107 U. Pa. L. Rev. 1099 (1959) [hereinafter cited as 107 U. Pa. L. Rev.].

5. *Id.*

6. *Id.*

encroachment of the flood plain as the primary cause of flood loss is an oversimplification.⁷ The complexity of the problem becomes apparent when focus is placed on other factors in flood losses, including the increase in run-off due to the imperviousness of large paved areas, and the rise in elevation of flood waters due to restrictions placed in natural streams.⁸ Both of these occurrences, however, are also a result of man—not nature. While there are many factors that may be responsible for inducing flood loss, the most conspicuous is man's affinity for riverine locations.⁹ When this human attraction is coupled with man's apparent lack of perception of the dangers of living upon the flood plain,¹⁰ a stronger case can be made for holding man primarily responsible for flood losses. Any Congressional action in the area of flood loss control must, therefore, take cognizance of the human element.

But when the human element is considered, the economic aspects of human encroachment on the flood plain cannot be overlooked. The monumental losses¹¹ occurring from floods cannot be the sole dictator of whether such encroachment of the flood plain is justified. If the benefits gained from flood plain occupancy exceed the flood damage costs plus the rescue, clean-up and rehabilitation costs, then flood plain occupancy is justified.¹²

Offset against any computation of benefits derived by society from flood plain encroachment must be the cost of public subsidy or expenditure,¹³ in the form of disaster relief to victims of floods. Promoters of flood plain occupancy note that man must have considered flooding when encroaching upon the flood plain¹⁴ because the cheaper purchase price of property prone to flooding must, in the mind of the purchaser, equate with the possible risks.¹⁵ But when the lower purchase price is coupled with the fact that taxpayers will provide disaster relief, the actual cost of the land to the encroacher is

7. Marcus & Abrams, *Flood Insurance and Flood Plain Zoning As Compatible Components: A Multialternative Approach to Flood Damage Reduction*, 7 *Natural Resources Lawyer* 585 (1974) [hereinafter cited as 7 *Natural Resources Lawyer*].

8. *Id.*

9. *Id.* citing W. R. Derrick Sewell, *Human Response to Floods*, in *Introduction to Geographical Hydrology*, 121-141 (R. J. Chouly ed. 1969).

10. *Id.*

11. Task Force on Federal Flood Control, *A Unified National Program for Managing Flood Losses*, 3 (1966) [hereinafter cited as TASK FORCE REPORT]. The report estimated that the annual losses due to floods exceeded one billion dollars a year.

12. Krutilla, *An Economic Approach to Coping with Flood Damages*, 2 *Water Resour. Res.* 185 (1966) [hereinafter cited as 2 *Water Resour. Res.*].

13. 107 U. Pa. L. Rev., *supra* note 4, at 1115.

14. *Id.*

15. *Id.*

still further diminished.¹⁶ Since encroachment is in part a response to the ability "to escape fiscal responsibility for the costs such encroachment entails to society, a greater or more intensive use of the flood plain occurs than is warranted by the economics of flood plain location."¹⁷ One answer to this problem is zoning.¹⁸ If the policy of controlling flood loss is directed at regulating man's use of the flood plain rather than expending public funds for flood control or disaster relief,¹⁹ the economics of zoning become a factor in Congressional policy making. Although flood plain zoning can reduce losses to both the taxpayer and the individual concerned, its use must be carefully applied so as not to cause a reduction in activity that might be more valuable to society than the losses incurred.²⁰ As in all facets of governmental policy making, economic realities must be a part of the policy formulated by Congress to control flood losses.

In the final analysis the problem is one of public policy. "As our flood losses continue to climb, people are asking whether a landowner near a stream has a right to use his land without regard to the degree of risk involved and whether, when misfortune strikes, he has even a moral claim to public relief."²¹ If the landowner is restricted from utilizing his property as he sees fit, the issue becomes one of whether the restriction is an unconstitutional taking of his property without adequate compensation²² or merely a regulation upheld under the police power of the governmental entity involved.²³ The answer to this question will be considered in a later section of this report as it is an important point in formulating policy. Whether public policy, as expressed by the United States Congress, will continue to provide public relief to those who have risked development upon the flood plain is another issue that Congress must resolve in formulating flood loss control policy.²⁴

These basic issues have been briefly reviewed in order to acquaint the reader with some of the questions presented to Congress during its step-by-step approach towards enactment of a National Flood Insurance Program.²⁵ The remainder of this section will deal chronologic-

16. *Id.*

17. 2 *Water Resour. Res.*, *supra* note 12.

18. 107 U. Pa. L. Rev., *supra* note 4, at 1115.

19. Finch, *Man Versus Floods*, 52 *Pol. Sci. Q.* 381, 385 (1937) [hereinafter cited as 52 *Pol. Sci. Q.*].

20. 3 *Water Resour. Res.*, *supra* note 3.

21. Johnson & Lewis, *Flood Plain Management*, 4 *Contemporary Developments in Water Law* 96 (1970) [hereinafter cited as 4 *Contemporary Developments in Water Law*].

22. U.S. Const. amend. V, XIV.

23. *Village of Euclid v. Ambler Realty Co.*, 272 U.S. 365 (1926).

24. 4 *Contemporary Developments in Water Law*, *supra* note 21.

25. 42 U.S.C.A. §§4001-4126 (1973); Act of August 1, 1968, Pub. L. No. 90-448, 82 Stat. 572.

ally with relevant legislation and governmental action leading to the present National Flood Insurance Program.²⁶

*Flood Control Act of 1936*²⁷

On June 22, 1936, Congress enacted the first in a series of programs designed to cope with flood losses.²⁸ The Flood Control Act of 1936²⁹ was a policy declaration by Congress that a uniform national flood control program was needed.³⁰ Congress for the first time recognized the fact that "floods pay no attention to political boundaries . . ." ³¹ and that it had a responsibility in the area of flood control.³² As pointed out by the House manager of the bill, "the policy adopted was whether or not the project was economical and would bring the benefit of a dollar for every dollar expended."³³ However, it must be pointed out that this cost-benefit analysis requirement is subject to less intense scrutiny when the aspect "of general welfare"³⁴ is added to the equation. Since human life is not readily subject to economic evaluation, it was easy to advance the position "that the only way to save the lives of those living in flood areas is through construction of tremendously costly flood works. . . ." ³⁵ Thus, the desire that society receive a net economic benefit from the project was easily circumvented.

It is important to recognize that although Congress did accept a

26. *Id.*

27. 33 U.S.C. §§701a-701f, 701h (1936) Act of June 22, 1936, ch. 688, 49 Stat. 1570. Section 701(a) states: "It is recognized that destructive floods upon the rivers of the United States, upsetting orderly processes and causing loss of life and property, including the erosion of lands, and impairing and obstructing navigation, highways, railroads, and other channels of commerce between the States, constitute a menace to national welfare; that it is the sense of Congress that flood control on navigable waters or their tributaries is a proper activity of the Federal Government in cooperation with States, their political subdivisions, and localities thereof; that investigations and improvements of rivers and other waterways, including watersheds thereof, for flood control purposes are in the interest of the general welfare, that the Federal Government should improve or participate in the improvement of navigable waters or their tributaries, including watersheds thereof, for flood-control purposes if the benefit to whomever they accrue are in excess of the estimated costs, and if the lives and social security of people are otherwise adversely affected."

28. See The East Central Florida Regional Planning Council, *Policy Alternatives in Flood Plains* 19 (July, 1974) [hereinafter cited as *Policy Alternatives in Flood Plains*].

29. 33 U.S.C. §§701a-701f, 701h (1970). A similar flood control act, the Flood Control Act of 1941, was held to be a valid exercise of Congressional power under the Commerce Clause of the United States Constitution in *U.S. v. Grand River Dam Authority*, 363 U.S. 229 (1960).

30. 80 Cong. Rec. 8857 (1936) [hereinafter cited as 80 Cong. Rec.] (remarks of Congressman Whittington).

31. 52 Pol. Sci. Q., *supra* note 19, at 381.

32. 80 Cong. Rec., *supra* note 30.

33. *Id.* at 8862 (remarks of Congressman Wilson).

34. 33 U.S.C. §§701a-701f, 701h (1970).

35. 52 Pol. Sci. Q., *supra* note 19, at 384.

large measure of responsibility in the area of flood control, it did not become an insurer of every riparian landowner's property.³⁶

It is true that "structural control systems, flood proofing, and flood warning and evacuation systems all produce benefits in the form of a reduction in loss . . . due to flooding."³⁷ However, this national system of protective devices has been criticized from its inception. An early commentator noted that the flood problem had become "more a matter of psychology and politics than an economic or social problem."³⁸ Sentiment for flood victims and fear of floods prompted Americans to place "blind faith" in the power of modern science and engineering to prevent floods.³⁹ People relied heavily on spending federal funds to reach this goal.⁴⁰ Finally it became apparent that erecting preventive or control works was merely perpetuating losses by encouraging further encroachment on the flood plain.⁴¹ Once such works are constructed, the former hazard is usually forgotten.⁴² One obvious solution is to prevent use of the flood plain by legislation,⁴³ but this alternative requires resolution of the problems noted above.⁴⁴

Criticisms of flood control seem even more justified when it is realized that despite the 1936 Act⁴⁵ and subsequent legislation embracing the policy of control,⁴⁶ the losses suffered from floods continued to rise.⁴⁷ The physical taming of the Nation's riverways by the use of structural means proved to be a non-solution to the expanding problem of flood loss.⁴⁸ While flood control projects have continued to be advocated, other methods to combat flood losses have also been advanced.⁴⁹ The use of flood insurance programs eventually

36. *Kirch v. U.S.*, 91 Ct. Cls. 196, 203 (1940).

37. 3 *Water Resour. Res.*, *supra* note 3.

38. 52 *Pol. Sci. Q.*, *supra* note 19, at 381.

39. *Id.*

40. *Id.*

41. *Id.* at 385.

42. 7 *Natural Resources Lawyer*, *supra* note 7, at 586.

43. 52 *Pol. Sci. Q.*, *supra* note 19, at 385.

44. See text accompanying notes 11-24 *supra*.

45. 33 U.S.C. §§701a-701f, 701h (1970).

46. There are numerous flood control acts, e.g., Act of March 1, 1917, ch. 144, §4, 39 Stat. 951; 33 U.S.C. §7016-6 (1970), Act of January 19, 1948, ch. 2, §1, 62 Stat. 4; 33 U.S.C. §709a (1970), Act of November 7, 1966, Pub. L. No. 89-789, 80 Stat. 1422.

47. 4 *Contemporary Developments in Water Law*, *supra* note 22. See also Report to the Congress by the Comptroller General of the United States on National Attempts to Reduce Losses From Floods by Planning for and Controlling the Uses of Flood-prone Land [hereinafter cited as Report to the Congress].

48. 7 *Natural Resources Lawyer*, *supra* note 7, at 586.

49. 4 *Contemporary Developments in Water Law*, *supra* note 21, at 97. "Among the older devices are flood forecasting and evacuation. Among the newer methods are flood plain zoning, subdivision regulations, building codes, planned extension of utilities, tax assessment adjustments, floodproofing, sign warnings, news media notices, land acquisition for open spaces, and a number of other measures to guide development in areas subject to flooding."

was endorsed by Congress and led to the enactment of the Federal Flood Insurance Act of 1956.⁵⁰

*Federal Flood Insurance Act of 1956*⁵¹

Proposals for a program of national flood insurance had been considered by Congress since 1951.⁵² Since flood losses were not confined to any particular area or State within the United States,⁵³ the problem was recognized as a national one.⁵⁴ The Congressional feeling that a Federal Flood Insurance Program was not a panacea⁵⁵ was manifest in the words of Senator Herbert H. Lehman of New York, when he stated that:

Flood insurance is only a part of the answer. Another part . . . lies in flood control works. There is no substitute for the planning and construction of physical works to control floodwaters. It is equally true, however, that no system of works designed for flood prevention and control can alone answer the need.⁵⁶

Thus, Congress realized the need for a multi-faceted program to combat flood losses. Congress was also aware that flood insurance was not available through private means.⁵⁷ Private companies felt they could not make sufficient profits from flood insurance and feared that catastrophic damages in any single year might bankrupt their limited

50. Act of August 7, 1956, ch. 1025 §§2-14, 80 Stat. 1078 (repealed 1968). Section 2401(a) stated: "The Congress finds that in the case of recurring natural disasters, including recurring floods, insurance protection against individual and public loss is not always practically available through private or public sources. With specific reference to insurance against flood loss, the Congress finds that insurance against certain losses resulting from this peril is not so available. Since preventive and protective means and structures against the effects of these disasters can never wholly anticipate the geographic incidence and infinite variety of the destructive aspects of these forces, the Congress finds that the safeguards of insurance are a necessary adjunct of preventive and protective means and structures."

Inasmuch as these disasters impede interstate and foreign commerce, hamper national defense, and cause widespread distress and hardship adversely affecting the general welfare, without regard to State boundary lines, and in the absence of insurance protection from private or public sources, the Congress ought to provide for such protection in the case of flood, and study the feasibility and need for similar programs in the case of other forms of natural disaster against which insurance protection is not generally and practically available in all geographical areas."

51. *Id.*

52. 102 Cong. Rec. 7916 (1956) (remarks of Senator Morse). Indeed Senator Morse dated the concern of Congress over national flood insurance back to the Flood Control Act of 1938.

53. 3 U.S. Code Cong. & Adm. News 4473 (1956).

54. Act of August 7, 1956, ch. 1025 §§2-14, 80 Stat. 1078 (repealed 1968). See note 50 *supra*.

55. *Id.* § 2401(a). "(S)afeguards of insurance are a necessary adjunct of preventive and protective means and structures."

56. 102 Cong. Rec. 7906 (1956) (remarks of Senator Lehman). Act of August 7, 1956, ch. 1025 §§2-14, 80 Stat. 1078 (repealed 1968).

57. See note 50 *supra*.

resources.⁵⁸ Confronted with this economic reality Congress decided that if "private companies will not make such protection available, the Government must."⁵⁹

Passage of the Federal Flood Insurance Act of 1956 was an experimental program for insuring against flood losses.⁶⁰ The intent was "to blaze the trail"⁶¹ in this area to show that such insurance could be offered by private companies on a commercially feasible basis.⁶² The Congress was also concerned with aiding the small businessman and small landowner—those who were hit hardest by losses that flood waters created.⁶³ As stated by Senator Lehman, "The big business concerns—at least the profitable ones—and the wealthy home owner can insure themselves, and write off damage against income in their tax returns. The average homeowner cannot do this at all, and the small, struggling businessman finds it difficult and frequently impossible."⁶⁴ To support the implementation of these objectives there was precedent for passage of the Federal Flood Insurance Act of 1956 in the federal crop-insurance program.⁶⁵

Although the Federal Flood Insurance Act of 1956 was enacted into law, it was never implemented.⁶⁶ "Deficiencies in actuarial justification and less than complete industry support resulted in a still birth for the experiment."⁶⁷ The major reason for the program's failure was the difficulty of developing a rate structure which adequately reflected the risk of loss in various areas so that the United States' contingent liability could be measured.⁶⁸ Another problem with the Act was the lack of "adequate mitigation measures to reduce the incidence of flood damage."⁶⁹ For these reasons, Congress failed to appropriate the funds required to implement the program.⁷⁰

58. 102 Cong. Rec. 7906 (1956) (remarks of Senator Lehman); see 3 U.S. Code Cong. & Adm. News 4473 (1956).

59. 102 Cong. Rec. 7906 (1956) (remarks of Senator Lehman).

60. 3 U.S. Code Cong. & Adm. News 4472 (1956).

61. *Id.* at 4473.

62. *Id.*

63. *Id.* at 4474. "Flood damage hits particularly hard (1) those home owners who lose their homes in a flood but still owe the mortgage debt on such homes, and (2) businessmen whose credit is so impaired by flood loss as to discourage them from resuming business operations."

64. 102 Cong. Rec. 7905 (1956) (remarks of Senator Lehman).

65. 3 U.S. Code Cong. & Adm. News 4475 (1956). Other programs involving insurance include (1) aviation war-damage insurance, (2) bank-deposit insurance, (3) Export-Import Bank tangible property insurance, (4) Government employee's insurance and others.

66. 2 In Depth, *supra* note 2.

67. Levin, *The National Flood Insurance Program—A New Element In Water Resource Management*, 6 Water Resour. Bull. 120 (1970) [hereinafter cited as 6 Water Resour. Bull.].

68. *Hearings on S. 1985 Before The Subcommittee of Securities of the Committee on Banking and Currency*, 90th Cong., 1st Sess., at 11 (1967) [hereinafter cited as *Hearings on S.1985*].

69. 2 In Depth, *supra* note 2, p. 1.

70. *Hearings on S.1985*, *supra* note 68.

Although the program was not utilized, it should be noted that by enactment Congress recognized flood insurance as a partial means of combating flood losses. Congress also perceived the use of land regulation as a means to combat such losses by requiring some type of zoning to be adopted by the States.⁷¹ Many commentators felt that zoning was essential to insure that the flood insurance program would not encourage flood plain occupancy.⁷²

The call for some type of insurance continued after enactment of the Federal Flood Insurance Act of 1956 with some writers advocating a mandatory insurance program which would require those living upon the flood plain to pay for the inherent dangers.⁷³ Such a program was seen as a means of curtailing the expenditure of public funds for disaster victims.⁷⁴ Opponents of this approach noted that such a plan "would represent a dramatic reversal of Federal policy since 1936 . . ." ⁷⁵ and that a subsidized system of insurance was more in keeping with previous policy.⁷⁶ It is important to emphasize that land use regulation to achieve informed and rational use of the flood plain was recognized as a significant element in any planned federal program of insurance.⁷⁷ With this in mind, there appeared to be only two alternatives: reliance on public information, which tends to be effective only after a recent disaster, or mandatory insurance, which makes encroachers aware of flood plain dangers through increased costs to them.⁷⁸ In the late 1950's, Congress was a long way from either alternative. Several important legislative and governmental actions took place in the interim between the Federal Flood Insurance Act of 1956 and the present National Flood Insurance Program.⁷⁹ These actions are set out below to aid in understanding the history and intent behind the present program.

*Rivers and Harbors Act of 1960*⁸⁰

Generally, this Act was concerned with "programs for development and improvement of the rivers and harbors of our Nation, *for the protection of lives and property of our citizens against the ravages of floodwaters*, and for the general development of the Nation's water

71. 42 U.S.C. §2411 (1958); see also 107 U. Pa. L. Rev., *supra* note 4, at 1101.

72. 107 U. Pa. L. Rev., *supra* note 4, at 1102, n. 19.

73. 2 Water Resour. Res., *supra* note 12, at 186-87.

74. *Id.*

75. Whipple, *Flood Control Alternatives and Flood Insurance*, 38 Civil Eng. (NY) 68 (1968).

76. *Id.* at 69.

77. See text accompanying note 71-2, *supra*.

78. 3 Water Resour. Res., *supra* note 3, at 347.

79. 42 U.S.C.A. §§4001-4128 (1973).

80. 33 U.S.C. §§426, 577, 578 (1970), Act of July 14, 1960, Pub. L. No. 86-645, 74 Stat. 484.

resources. . . ."⁸¹ (emphasis added). Under title II of the Act, specific attention was given to flood control legislation.⁸² Congress noted that the increase in population and standard of living within the United States placed increased demands upon our water resources and called for future planning.⁸³ With particular recognition of flood control planning, Congress emphasized that consideration should be given to "the pattern of growth and development in the flood plain. . . ."⁸⁴ This intent was codified by section 206 of the Act. Section 206 authorized the Secretary of the Army through the Chief of Engineers to compile and disseminate flood plain information studies to State and local governments upon request.⁸⁵ Congress hoped that this would stimulate local responsibility in dealing with flood problems by encouraging better land use regulation.⁸⁶ Response to this Congressional action was less than satisfactory.⁸⁷ As with the Federal Flood Insurance Act of 1956, this attempt to stimulate activity that would help alleviate the yearly losses caused by floods failed. Apparently, a major disaster was required in order to initiate successful federal action in the battle against flood losses. The impetus for this action came in 1965 in the form of Hurricane Betsy.

*Southeast Hurricane Disaster Relief Act of 1965*⁸⁸

After Hurricane Betsy ravaged the Gulf Coast states of Florida, Louisiana and Mississippi causing enormous damages,⁸⁹ Congress recognized that special measures would be needed to aid these States in their recovery.⁹⁰ This recognition prompted the passage of the Southeast Hurricane Disaster Relief Act of 1965.⁹¹ With respect to future action in the area of flood loss abatement, the most significant section of the Act was section five.⁹² Recognizing that the Federal Flood Insurance Act of 1956 had not provided an adequate solution to the problem, the Senate had passed several bills calling for studies of

81. S. Rep. No. 1524, 86th Cong., 2d Sess. 2 (1960) [hereinafter cited as S. Rep. No. 1524].

82. *Id.*

83. *Id.* at 4.

84. *Id.*

85. Policy Alternatives In Flood Plains, *supra* note 30.

86. S. Rep. No. 1524, *supra* note 91, at 192.

87. Policy Alternatives In Flood Plains, *supra* note 30.

88. Act of November 8, 1965, Pub. L. No. 89-339, 79 Stat. 1301.

89. H.R. Rep. No. 1164, 89th Cong., 1st Sess., 2 (1965). "The Red Cross reports that between 800,000 and 1 million persons were adversely affected by the hurricane. Over 1,500 homes were destroyed and more than 150,000 damaged; over 2,000 trailers were damaged or destroyed, 1400 farm buildings and 2,600 small businesses." [hereinafter cited as H.R. Rep. No. 1164].

90. Act of November 8, 1965, Pub. L. No. 89-339, 79 Stat. 1301.

91. *Id.*

92. Act of November 8, 1965, Pub. L. No. 89-339, §5, 79 Stat. 1301.

the situation.⁹³ The substance of these bills was incorporated into section five of the Southeast Hurricane Disaster Relief Act of 1965.

Section five of the Act required the Secretary of Housing and Urban Development (HUD) to undertake an immediate study of alternative programs that would assist in aiding those who suffered from floods and other natural disasters.⁹⁴ The requirement specifically included "alternative methods of Federal disaster insurance. . . ."⁹⁵

*HUD Study*⁹⁶

On August 8, 1966, the Secretary of Housing and Urban Development forwarded the HUD study to President Lyndon B. Johnson.⁹⁷

93. HUD, Insurance And Other Programs For Financial Assistance To Flood Victims, at V (1966) [hereinafter cited as HUD STUDY].

94. Act of November 8, 1965, Pub. L. No. 89-339, §5, 79 Stat. 1301.

95. *Id.* Congress recognized that such a study might not lead to a "workable Federal earthquake and flood insurance program," H.R. Rep. No. 1164, *supra* note 89, at 4, and desired to emphasize that the study was not limited to this area, but was to include other feasible methods of alleviating losses, such as flood plain zoning. Congress required that recommendations derived from this study be forwarded to the President for submission to Congress not later than nine months after funds for the program had been appropriated. Act of November 8, 1965, Pub. L. No. 89-339, §5, 79 Stat. 1301.

96. HUD STUDY, *supra* note 93.

97. During the interval between the disaster spawned by Hurricane Betsy in 1965 and the release of the HUD study in August of 1966, the President had not been ignoring the problem. He had appointed a distinguished Task Force on Federal Flood Control Policy to restudy the problems of flood hazards and flood losses. In its report, filed on August 10, 1966, the Task Force recommended that a new unified governmental program was needed to provide leadership in efficiently developing flood plains and limiting losses thereon. The program under the Flood Control Act of 1936 was found to be inefficient as the sole means of combating flood losses, since projects under that Act did not prevent damage from large and infrequent floods. The report pointed out that since insurance against flood loss was not presently available, the only alternative available to landowners for mitigating losses was continued reliance upon expensive and inefficient protective devices coupled with costly governmental and private emergency efforts. The report reflects that sound public policy should seek to foster efficient use of bottom lands by bringing geographical location, hydrologic events, economics, and the recognition of both individual and public responsibility for managing flood plains together into a harmonious relationship. (*Id.* at 16) The Task Force concluded that if no new governmental program was developed, "the Nation faces continuation of a dismal cycle of losses, partial protection, further induced (though submarginal) development and unnecessary losses." TASK FORCE REPORT, *supra* note 11, at 12.

One concept proposed by the report was that those who occupied the plain pay the full cost of their occupancy through a mandatory occupancy charge. The concept was similar to mandatory insurance in that it sought to make those occupying the flood plain pay for the difference in benefits and costs that their occupancy taxed upon society. This would insure economically feasible development of the flood plain by avoiding the taxpayer subsidy for preventive and emergency programs, which merely led to further unwarranted development.

To attain such a program, the report viewed insurance as a viable means, but cautioned that as a tool for flood plain management it must be used so as not to actually aggravate the problem. If the flood insurance program merely subsidized the losses suffered, it would cause increased investment on the flood plain with a resultant increase in flood losses. *Id.* at 18. [A recent report has indicated that the NFIP has had exactly this effect in some coastal areas of Rhode Island. Banks are now lending money for construction on barrier beaches that were considered too

President Johnson, in his message accompanying transmittal of the study to Congress on August 12, 1966, noted the need for protecting private property from flood loss and suggested that the HUD study would provide an excellent vehicle for giving the matter thorough consideration.⁹⁸

Although it provided an exhaustive analysis of alternative means of helping flood victims, the study concluded that flood insurance was now a feasible means to achieve the goal.⁹⁹ In short, flood insurance was seen as a means to complement the existing federal flood control and disaster relief programs.¹⁰⁰ Stress was placed on the fact that any such program must be complementary and not competitive with existing federal programs. Otherwise, a truly unified national program would not be implemented.¹⁰¹ The role of the flood insurance in such a program was to provide relief to victims of floods while at the same time discouraging unwise land use.¹⁰² After pointing out four alternative methods for implementation,¹⁰³ the study recommended that a cooperative program between the Federal Government and private industry be adopted along with a sharing of the risks in-

great a risk prior to the availability of flood insurance. H. Crane Miller, A Report to the New England River Basins Commission, (July 10, 1975).]

After reviewing the Task Force Report, President Lyndon B. Johnson transmitted it to Congress on August 10, 1966, and simultaneously issued Executive Order Number 11296 in accordance with a recommendation in the Report. In the Order, President Johnson recognized the fact that despite efforts to control floods, the losses due to floods increased yearly. He also noted that the Federal Government had many programs which influenced development in flood hazard areas. Following the recommendation of the Task Force, he ordered heads of executive agencies to provide leadership in an effort to prevent inefficient development of the flood plains. The agency heads were specifically required to evaluate flood hazards when locating new federal construction, disposing of federal lands and property, or planning for land use. One of the more significant aspects of the Order required evaluation of the potential flood hazard by agency heads responsible for administering federal grants, loans, or mortgage insurance for construction and precluded use of such funds where the evaluation deemed it unjustified. However, the effect of this aspect of the Order could be lessened if the agency head determined it to be impractical to preclude such expenditure. Executive Order No. 11296, 3 C.F.R. 139 (Comp. 1966).

For whatever reasons, a recent report of the Comptroller General of the United States indicates that the various executive agencies, including HUD, have not been actively complying with the Presidential Order. Report to Congress, *supra* n. 47. The primary significance of the Executive Order is that, for the first time, the executive branch of the Federal Government showed its awareness of the flood hazard problem facing the nation and its responsibility in aiding in the development of a workable nation-wide program to deal with this problem.

98. HUD STUDY, *supra* note 93, at VII.

99. *Id.* at VI, 6.

100. *Id.* at 2, 133. See also 6 Water Resour. Bull., *supra* note 67, at 120-21.

101. HUD STUDY, *supra* note 93, at 2, 133.

102. *Id.* at 2, 45. See generally 6 Water Resour. Bull., *supra* note 67.

103. HUD STUDY, *supra* note 93, at 98-101. The four alternatives were: (1) entirely private industry; (2) private industry program with major federal help; (3) private industry operates a government program; (4) all federal programs.

volved.¹⁰⁴ Congress had previously shown awareness of the need for a national program of flood insurance when it enacted the Federal Flood Insurance Act of 1956, but lacked sufficient knowledge to ensure implementation of such a program. With the expertise supplied by the HUD study¹⁰⁵ Congress was now prepared to develop a national program of flood insurance.

*National Flood Insurance Program of 1968*¹⁰⁶

For over a decade, the Nation had searched for a program that would compensate victims of floods yet ensure that those benefiting from the program would bear the cost and be made aware of the dangers of locating in a flood hazard area.¹⁰⁷ Prior to 1968, Congress had attacked the problem by legislating after the fact.¹⁰⁸ In an attempt to deal with the problem of flood losses prior to their occurrence,¹⁰⁹ Congress enacted the National Flood Insurance Program of 1968 as a part of the Housing and Urban Development Act of 1968.¹¹⁰

As with the Federal Flood Insurance Act of 1956,¹¹¹ the 1968 program was designed to benefit the modest landowner and small businessman and to complement existing federal programs.¹¹² The continued heavy losses from floods and the present non-availability of insurance made Congress aware of the need for a program that would make insurance available, encourage awareness of the risks in occupying the flood plains, and reduce federal expenditures for disaster relief.¹¹³ The 1968 program attempted to meet these needs by making flood insurance available to residents of the flood plain and requiring local jurisdictions to enact land use controls.¹¹⁴ Land use controls were perceived as very important since they would restrict future development in flood hazard areas.¹¹⁵

104. HUD STUDY, *supra* note 93, at 103-10. See generally 6 Water Resour. Bull., *supra* note 67, at 121.

105. HUD STUDY, *supra* note 93, at 162, 74.

106. 42 U.S.C.A. §§4001-4128 (1973); see, Act of August 1, 1968, Pub. L. No. 90-448, 82 Stat. 572.

107. *Hearings on S.1985*, *supra* note 68, at 1, 11.

108. *Hearings on S.1985*, *supra* note 68, at 4-6. The passage of the Southeast Hurricane Disaster Relief Act of 1965 is a prime example of legislating after the fact.

109. *Id.* at 5. Congressman Boggs of Louisiana argued that passage of the National Flood Insurance Program of 1968 would allow individuals to protect themselves through the purchase of insurance rather than having to wait for private charity or government largesse to be given after the disaster has occurred.

110. 42 U.S.C.A. §§4001-4128 (1973).

111. See text accompanying notes 51-79 *supra*.

112. *Hearings on S.1985*, *supra* note 68, at 1, 2.

113. 2 U.S. Code Cong. & Adm. News 2966-67 (1968).

114. 2 In Depth, *supra* note 2, at 2.

115. 2 U.S. Code Cong. & Adm. News 2966 (1968).

Neither private enterprise¹¹⁶ nor Congress desired the Federal Government to completely dominate the field of flood insurance.¹¹⁷ Congress favored the maximum utilization of private industry,¹¹⁸ but recognized that the Federal Government would have to supplement the program with federal funds.¹¹⁹ Private industry, although concerned with the possibility of incurring catastrophic losses¹²⁰ reversed the position it had taken after enactment of the Federal Flood Insurance Act of 1956 and was now willing to participate.¹²¹ Congress provided that the Secretary of Housing and Urban Development should if possible initiate a cooperative program with the private sector.¹²² Fortunately the private sector was amenable to a joint effort. It was the intent of Congress that at some future time the program would become solely private.¹²³ This was also desired by the private sector, but perceived as a distant reality.¹²⁴

The federal government was given the responsibility for reinsuring the private companies participating in the program for abnormally excessive losses in its operation. Otherwise, the fear of catastrophic losses would have negated industry participation.¹²⁵ To insure availability of the necessary funds, Congress created the National Flood Insurance Fund.¹²⁶ The fund was financed by giving the Secretary of HUD the authority vested in the Housing and Home Finance Administrator under §15(e) of the Federal Flood Insurance Act of 1956 to issue notes or other obligations to the Secretary of the Treasury in the aggregate of \$150 million to carry out the Federal responsibilities under the program.¹²⁷ The remainder of the Federal Flood Insurance Act of 1956 was repealed.¹²⁸

As noted above,¹²⁹ property owners' coverage was oriented toward the small landowner by limiting it to one through four family

116. *Hearings on S.1985, supra* note 68, at 79.

117. 2 U.S. Code Cong. & Adm. News 1966 (1968).

118. *Id.*

119. *Id.* at 2970.

120. *Hearings on S.1985, supra* note 68, at 66.

121. *Id.* at 11.

122. 2 U.S. Code Cong. & Adm. News 2967, 2971-72 (1968).

123. *Id.* at 2973.

124. *Hearings on S.1985, supra* note 68, at 81.

125. *Id.* at 73.

126. 2 U.S. Code Cong. & Adm. News 1970 (1968).

127. *Id.* The Federal responsibilities were stated to be: "(1) Making premium equalization payments to the insurance pool to compensate for losses attributable to the difference between the actuarially correct premium and the premium actually charged the policy-holder; and (2) providing a Federal program of excess loss reinsurance, to assist the industry in meeting losses in years of higher than normal claims."

128. 42 U.S.C.A. §4016 (1973); *see* Act of August 1, 1968, Pub. L. No. 90-448, 82 Stat. 572.

129. *See* text accompanying note 112 *supra*.

residential properties and small businesses.¹³⁰ Coverage applied solely to floods, but could be expanded to other hazards when feasible.¹³¹ Insurance rates were partially subsidized for present occupiers of the plain.¹³² Subsidization for new owners was not permitted, since this would invite encroachment upon the plain at the expense of the taxpayer,¹³³ while subsidies to existing owners were defended as an interim solution to long-term readjustment of land use.¹³⁴

Local jurisdictions were required to adopt land use planning measures.¹³⁵ The program was to be implemented in two steps. Prior to June 30, 1970, communities had to provide assurances that land use regulations would be adopted in order to have insurance written in their area. After June 30, 1970 insurance would no longer be available unless actual regulations were enacted.¹³⁶ Also, insurance was not to be available to any property owner who contravened local regulations.¹³⁷

Congress was concerned that those who benefit from disaster relief pay part of the cost of protecting themselves.¹³⁸ Accordingly, it prohibited the payment of the federal disaster relief funds to anyone whose property was either covered or could have been covered under this insurance program if available in the area for more than one year prior to the loss.¹³⁹

Despite the apparent resolution of the problem of flood losses, the 1968 statute had several drawbacks. The program went a long way toward potentially reducing federal spending for disaster relief, but the need for federal emergency aid to flood victims remained.¹⁴⁰ More significantly, the voluntary nature of the program, coupled with the lack of effective sanctions, made implementation unworkable.¹⁴¹ The question of how long the federal government would remain a partner in the program added an element of instability or uncertainty. Since its inception, however, the effectiveness of the Act has been increased by numerous amendments. These amendments and their effects are discussed below.

130. 2 U.S. Code Cong. & Adm. News 2967 (1968).

131. *Id.* See also *Hearings on S.1985, supra* note 68, at 14.

132. *Hearings on S.1985, supra* note 68, at 64.

133. *Id.* at 15.

134. 2 U.S. Code Cong. & Adm. News 2969 (1968).

135. *Hearings on S.1985, supra* note 68, at 15. See also 2 U.S. Code Cong. & Adm. News 2966 (1968).

136. *Id.* See also 2 U.S. Code Cong. & Adm. News 1967 (1968).

137. 2 U.S. Code Cong. & Adm. News 2971 (1968).

138. *Id.* at 2969-70.

139. *Id.*

140. *Hearings on S.1985, supra* note 78, at 6.

141. Policy Alternatives in Flood Plains, *supra* note 30, at 21.

1969 Amendment

Section 408 of the Housing and Urban Development Act of 1969¹⁴² made three changes in the National Flood Insurance Program of 1968. First, Congress determined to cover mudslides caused by accumulations of water.¹⁴³ Second, the date by which land use controls must be adopted was moved from June 30, 1970 to December 31, 1971. Citing the fact that some State legislative sessions would not meet until 1971, Congress recognized the extension was necessary in order to allow sufficient time to formulate such measures.¹⁴⁴ The third addition provided for emergency implementation of the program at the discretion of the Secretary of HUD. Under this provision, the Secretary can authorize immediate coverage prior to the determination of actuarial premium rates if he concludes that coverage is necessary in order to carry out the purpose of the program.¹⁴⁵

1971 Amendments

Realizing that the preparation of actuarial rates was by no means complete for those communities eligible for the program,¹⁴⁶ Congress in 1971 amended the National Flood Insurance Program by extending the emergency implementation date until December 31, 1973.¹⁴⁷ This extension allowed the Secretary of HUD to provide insurance to those communities that were identified as containing flood hazard areas, but for which rate studies had not been completed.¹⁴⁸ Additionally, Congress suspended that portion of the program that prohibited the duplication of federal benefits.¹⁴⁹ Congress felt that citizens of those communities eligible for flood insurance were not aware of their eligibility. Since anyone failing to participate in the program within one year of its availability was prohibited from receiving federal disaster benefits,¹⁵⁰ Congress desired to defer its application for two years. By granting the extension, Congress allowed time for the program and its requirements to become widely known.¹⁵¹ Congress

142. 42 U.S.C.A. §§4001f, 4012(c)(2), 4022, 4056, 4102(c), 4121 (1973); see Act of December 24, 1969, Pub. L. No. 91-152, 83 Stat. 379, 397.

143. 42 U.S.C.A. §§4001-4128 (1973).

144. 2 U.S. Code Cong. & Adm. News 1555 (1969).

145. 42 U.S.C.A. §4056 (1973); see Act of December 24, 1969, Pub. L. No. 91-152, 83 Stat. 379.

146. 2 U.S. Code Cong. & Adm. News 2318 (1971). Only 350 of the estimated 800 eligible communities were expected to have prepared rates by the end of 1971.

147. 42 U.S.C.A. §4056(a) (1973).

148. 2 U.S. Code Cong. & Adm. News 2318 (1971).

149. 42 U.S.C.A. §4021 (1973).

150. See text accompanying note 139, *supra*.

151. 2 U.S. Code Cong. & Adm. News 2319 (1971).

also extended eligibility of coverage to church properties, provided they were utilized for religious purposes.¹⁵²

Although the amendments cited above went a long way toward making the program feasible, community participation remained voluntary. Thus, there was still no means to insure a fully unified national approach to mitigate flood losses. The Flood Disaster Protection Act of 1973 was designed to remedy this problem.

*Flood Disaster Protection Act of 1973*¹⁵³

The Flood Disaster Protection Act of 1973 finally provided the missing teeth to the National Flood Insurance Program.¹⁵⁴ The most significant aspect of the Act was the provision requiring the purchase of flood insurance where available.¹⁵⁵ Although land use planning was part of the Congressional intent behind the National Flood Insurance Program of 1968, it had become obvious to Congress that without mandating the purchase of insurance for those dwelling in the flood plain this objective could not be met.¹⁵⁶ To encourage the purchase of insurance, Congress provided that no federal financial assistance for acquisition or construction purposes would be made available unless the insurance was purchased.¹⁵⁷ Since insurance was not available in an area until the local government had joined the program by adopting land use regulations complying with the program's standards, no federally-backed loans to individuals would be allowed until their local communities had adequately participated in the program by adopting land use controls.¹⁵⁸ Thus the Act provided the mecha-

152. 2 U.S. Code Cong. & Adm. News 2325 (1971).

153. Act of December 31, 1973, Pub. L. No. 93-234, 87 Stat. 983.

154. The Act had as its stated purposes to:

- "(1) substantially increase the limits of coverage authorized under the national flood insurance program;
- (2) provide for the expeditious identification of, and the dissemination of information concerning floodprone areas;
- (3) require State and local communities as a condition of future Federal financial assistance, to participate in the flood insurance program and to adopt adequate floodplain ordinances with effective enforcement provisions consistent with Federal standards to reduce or avoid future flood losses; and
- (4) require the purchase of flood insurance by property owners who are being assisted by Federal programs or by federally supervised, regulated, or insured agencies or institutions in the acquisition or improvement of land or facilities located or to be located in identified areas having special flood hazards." 42 U.S.C.A. §4002(b) (1975 Supp.).

155. 42 U.S.C.A. §4001 (1975 Supp.); see Act of December 31, 1973, Pub. L. No. 93-234, §102, 87 Stat. 983.

156. 2 U.S. Code Cong. & Adm. News 3220 (1973).

157. *Id.* at 3224.

158. 42 U.S.C.A. §4002 (1975 Supp.); see Act of December 31, 1973, Pub. L. No. 93-234, 89 Stat. 983.

nism by which the flood insurance program could insure that those affected by floods would help to pay a portion of the cost to cover their losses and that adequate land-use controls on flood-plain development would be adopted.

Under the National Flood Insurance Program of 1968, HUD, as coordinator of the program, had adopted the 100-year flood¹⁵⁹ as the standard for identification of flood hazard areas.¹⁶⁰ Opponents of this administrative standard claimed it was too costly, unnecessary, and inconsistent with due process since present hydrologic procedures were inadequate to assess the standard equally in different areas; they preferred lessening of the standard or the use of local history to set individual standards.¹⁶¹ Proponents of the 100-year level argued that it was the only reasonable and practical technique for delineating flood hazard areas until further research and knowledge could provide a better concept.¹⁶² The Senate Committee on Banking, Housing, and Urban Affairs agreed that the FIA's designation of the 100-year flood as the standard was reasonable, and put its stamp of endorsement on it. The Committee noted that many communities had already adopted this standard.¹⁶³ Congress was also concerned with the extent to which local communities would be allowed to participate in establishing the 100-year standard ultimately set by the Act.¹⁶⁴ There was a great fear that Washington bureaucrats would make the ultimate decisions affecting private property at the local level.¹⁶⁵ Many members of Congress desired local participation in defining flood hazard areas and determining precisely what the flood level base for the community would be.¹⁶⁶ Congress accommodated this desire by enacting section 206 of the Flood Disaster Protection Act of 1973,

159. The 100-year flood is a flood having a one percent chance of occurring in any given year, although the flood may occur in any given year and not necessarily only once every one hundred years.

160. 2 U.S. Code Cong. & Adm. News 3228 (1973).

161. *Hearings on S. 1495 and H.R. 8449 Before the Subcommittee on Housing and Urban Affairs of the Committee on Banking, Housing and Urban Affairs*, 93d Cong., 1st Sess. 2 (1973) at 1-139. [hereinafter cited as *Hearings on S.1495 and H.R.8449*]. See also 2 U.S. Code Cong. & Adm. News 3221 (1973).

162. *Hearings on S.1495 and H.R.8449, supra* note 161, at 47.

163. 2 U.S. Code Cong. & Adm. News 3221 (1973).

164. Act of December 31, 1973, Pub. L. No. 93-234, §110, 89 Stat. 983.

165. *Hearings on S.1495 and H.R.8449, supra* note 161, at 44. Concern over bureaucratic coercion was explained to the Senate Subcommittee on Housing and Urban Affairs by Congressman L. A. Bafalis of Florida when he commented on his own inability as an elected representative to ever gain compromise with the Secretary of HUD. Congressman Bafalis expressed the concern that if he could place no input into a HUD decision, the chances of local communities having any meaningful input was nil. *Id.*

166. 119 Cong. Rec. S23207 (daily ed. Dec. 18, 1973) (remarks of Senator Williams).

which required the Secretary of HUD to allow all interested persons at the local level to participate in flood hazard studies.¹⁶⁷

Section 201 of the Act requires notice be given to all known flood-prone communities.¹⁶⁸ Notification serves two functions. The first is to appraise the community that the prerequisite study for its entry into the program had been completed. The second Congressional purpose of section 201 is to give the community an opportunity to contest HUD's flood hazard determination.¹⁶⁹ These sections clearly demonstrate the Congressional determination that securing local community participation in HUD decisions outweighed any necessity to rapidly implement the flood insurance program.¹⁷⁰

The most hotly contested section of the Act was section 110 which provided a means of appeal from flood hazard determinations made by HUD.¹⁷¹ The same fear of an iron-handed bureaucracy administering the program prompted a call for a system of individual and community appeals.¹⁷² Opponents of the appeal system desired a single body to make binding decisions so that the program could be implemented as rapidly as possible.¹⁷³ Some felt that if any appeal was to be allowed, standing should be given only to the community so that one individual could not hold up implementation.¹⁷⁴ The system enacted by Congress was a compromise among these various factions¹⁷⁵ under which a determination of HUD is final until a judicial appeal is completed.¹⁷⁶ This was deemed necessary in order to keep vested interests from deferring all limitations on flood plain development indefinitely.¹⁷⁷

1974-75 Amendments

Section 816 of the Housing and Community Development Act of 1974 provided two amendments to the National Flood Insurance Act of 1968.¹⁷⁸ This 1974 amendment directed federal agencies supervising lending institutions to require such institutions to provide

167. Act of December 31, 1973, Pub. L. No. 93-234, §206, 89 Stat. 983; see 2 U.S. Code Cong. & Adm. News 3236 (1973).

168. Act of December 31, 1973, Pub. L. No. 93-234, §20, 89 Stat. 983.

169. 2 U.S. Code Cong. & Adm. News 3232 (1973).

170. *Id.*

171. Act of December 31, 1973, Pub. L. No. 93-234, §110, 89 Stat. 983; see 2 U.S. Code Cong. & Adm. News 3230 (1973).

172. *Hearings on S.1495 and H.R.8440, supra* note 161, at 73-92.

173. *Id.* at 136.

174. *Id.* at 72.

175. Act of December 31, 1973, Pub. L. No. 93-234, §110, 89 Stat. 983; see 2 U.S. Code Cong. & Adm. News 3230 (1973).

176. 2 U.S. Code Cong. & Adm. News 3232-33 (1973).

177. *Id.*

178. Act of August 22, 1974, Pub. L. No. 93-383, §816, 88 Stat. 633.

notification of special flood hazards to purchasers or lessees of property located in a flood hazard area.¹⁷⁹ This notification is required in advance of the signing of any purchase agreement or other document.¹⁸⁰ The provision is clearly intended to insure that potential dwellers in the flood plain are aware of the dangers. In addition, Congress provided that any community making adequate progress toward a flood protection system complying with the 100-year standard is eligible for flood insurance at "premium rates not exceeding those which would be applicable . . . if such flood protection system had been completed."¹⁸¹ Another recent amendment extended the date for expiration of the emergency program to December 31, 1976.¹⁸²

Amendments and complementary legislation will continue so long as the federal government is concerned with implementation of the flood insurance program. Insurance industry support in promoting the program¹⁸³ coupled with the fact that approximately 450,000 policies were written prior to May of 1974 indicate that the program is functioning. As long as the mandatory requirements of the present plan continue to result in the expansion of the program, one might reasonably conclude that the program will continue to grow until the initial policies and goals of Congress are fully implemented.¹⁸⁴

ANALYSIS OF THE NATIONAL FLOOD INSURANCE PROGRAM IN ITS PRESENT FORM

The purpose of this section is to discuss the pertinent provisions of the NFIP as they exist today. This will be done by examining the program as it applies to: (1) Property types and priorities under the program; (2) Program phases and limitations on insurance coverage; (3) Maximum coverage and rates; (4) Federal criteria for land

179. *Id.*

180. *Id.*

181. *Id.* §816(b), 88 Stat. 633. Adequate progress was defined within the act.

182. This action was taken in December, 1975, but a citation is not available at this time. The latest attempted amendment to the program, S.810, 94th Cong., 1st Sess. (1975), introduced by Senator Eagleton, was allegedly designed to "correct certain excesses and inequities in the Federal flood insurance program." It would have done so by: "First. Making Federal flood insurance available to an individual if that individual agrees to comply with relevant HUD construction standards on his own property, but regardless of what the community as a whole may do. Second. Modifying the penalty provisions of the Act to exclude the prohibition against commercial loans for construction in a flood plain area." Cong. Rec. 2450-51 (1975) (remarks of Senator Eagleton).

This amendment, would in effect, have removed most incentives for a community to join the program. It was defeated in the Senate in January of 1976.

183. Aide—The Insurance Magazine From USAA, Winter 1975, at 8, 9. The Magazine encourages its membership to urge local officials to act in adopting the necessary requirements for entry into the National Flood Insurance Program.

184. See note 182 *supra*.

management and control measures; (5) Sales of insurance and claims adjustment; and (6) Mandatory purchase requirements.¹⁸⁵

Property Types and Priorities under the Program

The Secretary of HUD is directed to grant priorities in making flood insurance available to residential property owners whose lands are designed for the occupancy of from one to four families, church property, and business property which is owned or leased and operated by small business concerns.¹⁸⁶

The Secretary is further empowered to extend available coverage to other types of property when determined by him to be feasible.¹⁸⁷ This expansion came with the Flood Disaster Protection Act of 1973 and provides that religious, agricultural, non-profit organizations, and governmental buildings and their contents are also eligible for flood insurance coverage.¹⁸⁸ The term building is defined to include mobile homes as well as any walled and roofed structure that is principally above ground and affixed to a permanent site.¹⁸⁹ Thus, nearly all types of industrial, commercial and agricultural buildings, such as lumber sheds, machinery storage sheds, grain storage bins, and silos are eligible for coverage. But each building and its contents must be insured separately.¹⁹⁰ The exception to this latter rule is that the owner of a single-family dwelling may apply up to 10% of his coverage to the appurtenant private structures on the premises if they are used primarily in connection with the occupancy of the dwelling.¹⁹¹

Any mobile home on a permanent or temporary foundation is eligible for coverage.¹⁹² Travel trailers and campers are not eligible.¹⁹³

When a condominium plan includes traditional townhouses and row houses that are contiguous to the ground and capable of separate ownership and legal description, these units are eligible for coverage

185. 42 U.S.C.A. §§4001-4127 (1975 Supp.).

186. 42 U.S.C.A. §4012 (1973). For the purpose of the Act, a small business concern is defined as one which, together with its affiliates, does not have assets in excess of \$5 million, does not have a net worth in excess of \$2 and one half million, and does not have an average net income per year after federal income taxes for the preceding two fiscal years in excess of \$250,000. Average net income is to be computed without benefit of any carryover loss. HUD News, HUD—No. 70-850, p. 3, No. 10, December 4, 1970.

187. U.S.C.A. §4012(b) (1973).

188. See 2 In Depth Report, *supra* note 2, at 6.

189. 39 Fed. Reg. 26186, 26187(B)(1)(a) (1974).

190. *Id.*

191. *Id.*

192. 39 Fed. Reg. 26186, 26187(B)(1)(b) (1974).

193. *Id.*

as single-family dwellings.¹⁹⁴ This is true regardless of the type of common walls. High-rise or vertical condominium units, however, are not eligible for separate coverage. This is because all unit owners normally share ownership in and liability for, structural damage to the common areas which comprise the entire structure less the individual units. In these instances, the flood insurance policy would be issued in the name of the condominium owners' association.¹⁹⁵ All owners of condominium units may purchase individual contents coverage regardless of the type of condominium involved, while contents coverage for mobile homes is available only if the mobile home is eligible for structural coverage as described above.¹⁹⁶ Contents coverage may not be written on the contents of any building which is not fully enclosed.¹⁹⁷

Flood insurance cannot be purchased for outdoor swimming pools, bulkheads, wharves, fences, piers, docks, open structures on or partially over the water, personal property in the open, gas or liquid storage tanks, growing crops or livestock.¹⁹⁸ Flood insurance coverage for residential property excludes money, securities, birds or animals, most water vehicles, boats, trailers, and certain other types of property.¹⁹⁹

Program Phases and Limitations on Insurance Coverage

Communities²⁰⁰ entering the national flood insurance program generally do so in two phases. The Act's requirement that a

194. 39 Fed. Reg. 26186, 26187(B)(1)(c) (1974).

195. *Id.*

196. 39 Fed. Reg. 26186, 26187(B)(1)(e) (1974).

197. 39 Fed. Reg. 26186, 26187(B)(1)(f) (1974).

198. *See* 2 In Depth Report, *supra* note 2, at 6.

199. *Id.*

200. 24 C.F.R. §1909.1 (1972) defines Community "any State or political subdivision thereof with authority to adopt and enforce land use and control measures for the areas within its jurisdiction."

Before a community can become eligible for flood insurance under either the emergency or the regular program, the following prerequisites for the sale of flood insurance must be satisfied.

- (a) [It] . . . must apply for eligibility for the entire area within its jurisdiction, and must submit . . .
 - (2) citations to State and local statutes and ordinances authorizing actions regulating land use and copies of the local laws and regulations cited;
 - (3) a summary of State and local public and private flood plain or mudslide area management measures, if any, that have been adopted for the flood plain areas and/or mudslide areas in the community . . .
 - (4) a large-scale map of the entire area under the community's jurisdiction, identifying local flood plain areas and mudslide areas, if any, and showing the names of rivers, bays, gulfs, lakes, and similar bodies of water that cause floods;
 - (5) a brief summary of the community's history of flooding and/or mudslide and the characteristics of its flood plain and/or mudslide area, if available, including the

ratemaking study be made for each community before it can become eligible for the sale of flood insurance could have resulted in serious delays in providing flood insurance. To permit early sale of insurance in flood-prone communities, Congress established the Emergency Flood Insurance Program.²⁰¹ through which one-half of the program's total limits of coverage are available. The emergency program, which was extended to December 31, 1976,²⁰² does not affect the requirement that a community must adopt adequate land use and control measures, but permits flood insurance to be sold before a study is conducted to determine actuarial rates²⁰³ for the community. All such insurance under the emergency program is sold at subsidized

locations of any known high water marks and/or mudslide occurrences. A current flood plain information report prepared by the U.S. Army Corps of Engineers or a similar report will satisfy the requirements of this subparagraph with respect to flood plain areas; . . .

- (11) if applying after December 31, 1971, a copy of the land use and control measures the community has adopted in order to meet the requirements of Federal criteria;
 - (12) a commitment to recognize and duly evaluate flood and/or mudslide hazards in all official actions relative to land use in the areas having special flood and/or mudslide hazards and to take such other official actions as may be reasonably necessary to carry out the objectives of the program, and
 - (13) a commitment to: . . .
 - (ii) provide such information as the Administrator may request concerning present uses and occupancy of the flood plain and/or mudslide area;
 - (iii) maintain for public inspection and furnish upon request with respect to each area having special flood hazards, information on elevations (in relation to mean sea level) . . . of all new or substantially improved structures . . .
 - (iv) cooperate with Federal, State and local agencies and private firms which undertake to study, survey, map, and identify flood plain or mudslide areas, and cooperate with neighboring communities with respect to management of adjoining flood plain and/or mudslide areas in order to prevent aggravation of existing hazards;
- (b) An applicant must also legislatively . . .
- (2) designate an official responsible to submit, on each anniversary date of the community's initial eligibility, an annual report to the Administrator on the progress made during the past year within the community in the development and implementation of flood plain and/or mudslide area management measures." 24 C.F.R. § 1909.22 (1972).

The above requirements are expanded by proposed regulations which require that more information be furnished by the community. 40 Fed. Reg. 13476 (1975).

201. 24 C.F.R. §1909.1 (1972) defines Emergency Program as "the national flood insurance program authorized by the act, as implemented on an emergency basis and without the need for the individual community rate making studies, in accordance with section 1336 of the act, 42 U.S.C. 4056."

202. See note 182 *supra*.

203. 24 C.F.R. §1909.1 (1972) defines Actuarial Rates as "the risk premium rates, estimated by the administrator for individual communities pursuant to studies and investigations undertaken by him in accordance with section 1307 of the Act in order to provide flood insurance in accordance with accepted actuarial principles. Actuarial rates also contain provisions for operating costs and allowances."

premium rates.²⁰⁴ Once a community has met eligibility requirements for the emergency program and has submitted a copy of its preliminary land use measures, the Federal Insurance Administration (FIA) arranges for the sale of flood insurance within the community based on approved Flood Hazard Boundary Maps.²⁰⁵

The eligibility date for a particular community is always published in the *Federal Register*, indexed both under HUD and under FIA.²⁰⁶ In addition to publication in the *Federal Register*, daily notifications of changes in community status within their area²⁰⁷ are made to HUD regional offices and to the National Flood Insurance Association²⁰⁸ servicing companies.²⁰⁹ Once a community has become eligible for flood insurance under the emergency program, it is placed on a register of areas eligible for ratemaking studies.²¹⁰

A community which was eligible for the sale of flood insurance but failed to provide official notice to the Administrator by December 31, 1971, that it had adopted land use and control measures for its flood-prone and mudslide-prone areas in accordance with require-

204. 24 C.F.R. §1909.1 (1973) defines Chargeable Rates as "the reasonable premium rates, estimated by the administrator in accordance with section 1308 of the Act, which are established in order to encourage the purchase of flood insurance. Also called subsidized rates."

205. 24 C.F.R. §1909.1 (1972) defines Flood Hazard Boundary Map as "an official map or plat of a community issued or approved by the administrator, on which the boundaries of the flood plain and/or mudslide areas having special hazards have been drawn. This map must conform to the Special Flood Hazards Map and be of sufficient scale and clarity to permit the ready identification of individual building sites as either within or without the area having special flood hazards."

206. 39 Fed. Reg. 26186 (1974).

207. *Id.* at 26187.

208. 24 C.F.R. §1909.1 (1972) defines Association as "the National Flood Insurers Association and, as the context may indicate, the insurance pool composed of two or more of its members or any member acting for or on behalf of the association under the agreement."

209. 39 Fed. Reg. 26186, 26192 (1972) defines Servicing Company as "the insurance company which represents the National Flood Insurers Association and handles the issuance and servicing of all policies under the program for the particular community. Any licensed property and casualty agent in the State may obtain policy forms from a servicing company. Flood Hazard Boundary Maps are also available to lenders and others from the servicing company."

210. Priorities will be established for these studies based on the following criteria:

- "(a) Location of community and urgency of need for flood insurance;
- (b) Population of community and intensity of existing or proposed development of the flood plain and/or mudslide area;
- (c) Availability of information on the community with respect to its flood and/or mudslide characteristics and previous losses;
- (d) Recommendations of State officials as to communities within the State which should have priorities in flood insurance availability; and
- (e) Extent of State and local progress in flood plain and/or mudslide area management, including actual adoption of land use and control regulations consistent with related ongoing programs in the area." 24 C.F.R. §1909.23 (1972).

(This section is expanded by the proposed regulations to include consideration of flood-related erosion areas. 40 Fed. Reg. 13426 (1975).)

ments automatically lost its eligibility on that date.²¹¹ Also a community which provided such official notice but failed to submit the required land use and control measures to the Administrator by January 15, 1972, for review, automatically lost its eligibility on that date.²¹² The community's eligibility remains terminated until the land use and control measures have been adopted and sent to the FIA.²¹³ The Administrator will promptly notify the Association of those communities whose eligibility has been suspended, and the Association shall promptly so notify its servicing companies.²¹⁴ Flood insurance will not be sold or renewed in any suspended community until the Association is subsequently notified by the Administrator of the date of the community's formal reinstatement. Policies sold or renewed within a community during a period of ineligibility shall be deemed void and unenforceable whether or not the parties to the sale or renewal had actual notice of the ineligibility. Communities eligible for the sale of flood insurance after December 31, 1971, will not thereafter lose their eligibility because of the inadequacy of the land use and control measures they have adopted except upon 30 days' prior written notice and publication in the *Federal Register*.²¹⁵

Once a ratemaking study has been completed and actuarial rates²¹⁶ have been established, a flood insurance rate map²¹⁷ is issued. Based upon the zones established on this map, the FIA authorizes the sale of flood insurance under the regular program.²¹⁸ Under this program, buildings constructed on or before December 31, 1974, or the effective date of the rate map, as well as those located outside of the special flood hazard areas, remain eligible for the first-layer coverage²¹⁹ at either subsidized or actuarial rates, whichever is

211. 24 C.F.R. §1901.24 (1972). See note *supra* for further details on the required land use and control measures.

212. 24 C.F.R. §1909.24 (1972).

213. *Id.*

214. See note 209, *supra*.

215. 24 C.F.R. §1909.24 (1972).

216. See note 203, *supra*.

217. 24 C.F.R. §1909.1 (1972) defines Flood Insurance Rate Map as "an official map of a community on which the Administrator has delineated the area in which flood insurance may be sold under the regular flood insurance program and the actuarial rate zones applicable to such area."

218. 39 Fed. Reg. 26186, 26192 (1974) defines Regular Program as "the regular flood insurance program as authorized by the act and under which actuarial rates have been determined for use on first layer limits of insurance for all existing structures, if such rates are lower than the subsidized rates, and for all insurance on new construction or for the second layer limits of insurance which also becomes available with the effective date of the Flood Insurance Rate Map. (FIRM)."

219. 40 Fed. Reg. 13423 defines First-layer coverage as "the maximum amount of structural and contents insurance coverage available under the Emergency Program." (*i.e.*, one-half the maximum amount of insurance available under the Regular Program).

cheaper.²²⁰ All other buildings require actuarial rates on both first- and second-layer coverage.²²¹ Regardless of the date of construction, actuarial rates are always required for second-layer coverage.²²²

In carrying out his responsibilities under the provisions of the act which relate to notification and to an identification of flood-prone areas and the application of criteria for land management and use, the Secretary is required to establish procedures assuring adequate consultation with local officials.²²³ To facilitate this end, the Code of Federal Regulations states that the FIA will specifically request that communities submit pertinent data concerning flood hazards, flooding experience, plans to avoid special hazards, estimates of economic impact on the community, both historical and prospective, and such other data as would be deemed appropriate.²²⁴ In addition, he will notify local officials of the progress of the surveys, studies and investigations²²⁵ and encourage local dissemination of information concerning surveys, studies and investigations.²²⁶ In each community a flood elevation study docket will be established when a study is commenced and shall contain all correspondence between the FIA and the community concerning the study.²²⁷ Also, the Administrator shall appoint an employee of HUD as Consultation Coordination Officer (C.C.O.) for each community.²²⁸ The C.C.O. serves as the FIA representative in the community where the study is being conducted.²²⁹ As a notice to all citizens in the community, the FIA advertises once a week for three consecutive weeks in one or more newspapers of general circulation in the community that a study is being conducted and advises them that they may forward any information concerning the study to the Chief Executive Officer (C.E.O.) in the community.²³⁰

In establishing projected flood elevations, the FIA first establishes a flood elevation determination docket which contains copies of all correspondence and documents pertinent to the elevation determination.²³¹ Then the projected flood elevation must be proposed as

220. 39 Fed. Reg. 26186 (1974).

221. *Id.* 40 Fed. Reg. 13425 defines Second Layer Coverage as "the increased coverage, over the first layer, available only under the Regular Program at actuarial rates."

222. *Id.*

223. 42 U.S.C.A. §4107 (1975 Supp.).

224. 39 Fed. Reg. 26904, §1916.1(a) (1974).

225. *Id.* at §1916.1(b).

226. *Id.* at §1916.1(c).

227. *Id.* at §1916.3.

228. *Id.* at §1916.4.

229. *Id.* at §1916.5.

230. *Id.* at §1916.8.

231. *Id.* at §1917.3(a)-(e).

follows: first, by publication in the *Federal Register*, second, by notification by certified mail, return receipt requested, of the proposed flood elevation to the C.E.O.; and third, publication in a prominent local newspaper at least twice during the ten-day period immediately following the notification of the C.E.O.²³² Within 90 days of the second publication any owner or lessee of real property within the community who believes his property rights to be adversely affected may appeal to the local C.E.O.²³³ The sole basis for appeal is knowledge or information indicating that the elevation proposed is scientifically or technically incorrect.²³⁴ The community reviews and consolidates all such appeals and issues a written opinion stating whether the evidence presented is sufficient to justify an appeal on behalf of such individuals by the community in its own name.²³⁵ It should be noted, however, that whether or not the community decides to appeal in its own name, copies of the private individual appeals will be forwarded to the FIA for review not later than 90 days after the second publication.²³⁶ The FIA's decision shall be in written form and copies sent to the individual appellant and the C.E.O.²³⁷ If the community appeals in its own name, the FIA shall take into account all data furnished and attempt to resolve all differences through consultation with local officials²³⁸ and if necessary through administrative hearings.²³⁹ During the resolution of the conflict, flood insurance previously available within the community continues to be available, and no person is denied the right to purchase such insurance at subsidized rates.²⁴⁰ Any appellant still aggrieved by any final determination of the FIA after administrative appeal, may appeal to the U.S. District Court for his district, but not later than 60 days after receipt of notice of such final administrative determination.²⁴¹ Once final determination is settled, the community will be given a reasonable time to adopt land use and control measures consistent with the finding.²⁴² After the effective date of the flood insurance rate maps, actuarial rates will be charged for all new construction.²⁴³

232. 42 U.S.C.A. §4104 (1975 Supp.).

233. 42 U.S.C.A. §4104(b) (1975 Supp.).

234. *Id.*

235. 42 U.S.C.A. §4104(c) (1975 Supp.).

236. *Id.*

237. 42 U.S.C.A. §4104(d) (1975 Supp.).

238. 42 U.S.C.A. §4104(e) (1975 Supp.).

239. 42 U.S.C.A. §4104(e) (1975 Supp.). For procedure *see*, 39 Fed. Reg. 26904, §1918 (1974).

240. 42 U.S.C.A. §4104(e) (1975 Supp.).

241. 42 U.S.C.A. §4104(f) (1975 Supp.).

242. 42 U.S.C.A. §4104(e) (1975 Supp.).

243. 40 Fed. Reg. 13433, §1914.3(b) (1975).

Maximum Coverage and Rates

The maximum limits of flood insurance coverage under the regular program, except for Alaska, Hawaii, the Virgin Islands, and Guam are as follows:

- (1) For structures used for residential purposes and designed for the occupancy of a single family, (including townhouses or row houses), which are either separated from other structures by standard firewalls or open space, or contiguous to the ground and customarily regarded as separate structures:
 - (A) \$70,000 structural coverage.
 - (B) \$20,000 contents coverage, which may be purchased by the owner or the tenant.
- (2) For dwelling properties containing more than one dwelling unit:
 - (A) \$200,000 aggregate structural coverage.
 - (B) \$20,000 contents coverage for each unit, which may be purchased by the owner or tenant.²⁴⁴

For church and other properties under the regular program, the coverage cannot exceed:

- (1) \$200,000 aggregate structural coverage for any single structure.
- (2) \$200,000 contents coverage for each unit which may be purchased by owner or tenant.²⁴⁵

For areas operating under the emergency program the maximum coverages are one-half of the above limits.²⁴⁶

Actuarial rates²⁴⁷ will be applied to any structure,²⁴⁸ the construc-

244. 24 C.F.R. §1911.6 (1974). The maximum regular program limits of coverage available in the excepted areas of Alaska, Hawaii, the Virgin Islands, and Guam are:

- (1) For structures used for residential purposes and designed for the occupancy of a single family, (including townhouses or row houses), which are either separated from other structures by standard firewalls or open space, or contiguous to the ground and customarily regarded as separate structures:
 - (A) \$100,000 structural coverage.
 - (B) \$20,000 contents coverage, which may be purchased by the owner or tenant.
- (2) For dwelling properties containing more than one dwelling unit:
 - (A) \$300,000 aggregate structural coverage.
 - (B) \$20,000 contents coverage for each unit, which may be purchased by the owner or tenant." *Id.* at §1911.6(b).

245. *Id.* at §1911.6(c).

246. 24 C.F.R. §1911.6(a), (b), (c) (1974).

247. See note 203, *supra*.

248. 24 C.F.R. §1909.1 (1973) defines Structure as "a building which is used for residential, business, agricultural, or religious purposes, or which is occupied by a private nonprofit organization, or which is owned by a State or local government or an agency thereof. The term includes a building while in the course of construction, alteration or repair, but does not include building materials or supplies intended for use in such construction, alteration, or repair, unless such materials or supplies are within an enclosed building on the premises."

tion or substantial improvement²⁴⁹ of which was started²⁵⁰ on or after the effective date of the initial rate map. It will also be applied to the second-layer coverage of amounts exceeding 50% of the above maximum limits.²⁵¹

Federal Criteria for Land Management and Control Measures

As previously explained, the act provides that flood insurance will not be sold or renewed under the program within a community after December 31, 1971, unless the community has adopted adequate land use and control measures consistent with Federal criteria.²⁵² The Administrator is generally charged with providing the data which will form the basis for the land use measures.²⁵³ If the Administrator has not provided sufficient data to furnish a basis for these measures in a particular community, the community may initially utilize hydrologic and other data obtained from other federal or state agencies or from private consulting services, pending receipt of data from the Administrator.²⁵⁴ However, when special flood hazard area designations and water surface elevations have been furnished by the Administrator, they must be utilized.²⁵⁵

In all cases the minimum requirements governing the adequacy of flood-prone²⁵⁶ area land use measures adopted by a particular community depend on the amount of technical data formally provided to the community by the Administrator.²⁵⁷ The minimum federal standards have been revised several times since their first

249. 24 C.F.R. §1909.1 (1972) defines Substantial Improvement as "any repair, reconstruction or improvement of a structure, the cost of which equals or exceeds 50% of the actual cash value of the structure, either (a) before the improvement is started, or (b) if the structure has been damaged and is being restored, before the damage occurred. Substantial improvement is started when the first alteration of any structural part of the building commences."

250. 24 C.F.R. §1909.1 (1973) defines Start of Construction as "the first placement of permanent construction on a site, such as the pouring of slabs or footings or any work beyond the stage of excavation. For a structure without a basement or poured footings, the start of construction includes the first permanent framing or assembly of the structure or any part thereof on its pilings or foundation, or the affixing of any prefabricated structure or mobile home to its permanent site. Permanent construction does not include land preparation, land clearing, grading, filling; excavation for basement, footings, piers, or foundations; erection of temporary forms; the installation of pilings under proposed subsurface footings; installation of sewer, gas, and water pipes, or electric or other service lines from the street; or existence on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not a part of the main structure."

251. 24 C.F.R. §1911.8 (1974).

252. 24 C.F.R. §1910.1 (1973).

253. 24 C.F.R. §1910.3 (1973).

254. *Id.*

255. *Id.*

256. 24 C.F.R. §1909.1 (1972) defines Flood-prone Area as "a land area adjoining a river, stream, watercourse, ocean, bay or lake which is likely to be flooded."

257. 24 C.F.R. §1910.3 (1973).

publication. Generally speaking, as the Administrator provides more data to a community, the community must adopt more comprehensive regulations. This process begins with the simple review of building permits and subdivision proposals to insure that possible flood hazards are minimized. As more data is acquired—100-year flood elevation, floodway limits, coastal high hazard areas—the process concludes with comprehensive regulations such as those contained in the model ordinance set forth at the end of this report. The requirement that each community must have adopted adequate land use and control measures consistent with federal standards on or before the effective date of the rate map is statutory and cannot be waived.²⁵⁸ However, the Administrator recognizes that exceptional local conditions may render the adoption of a 100-year flood standard or other standards set forth premature and uneconomical for a particular community. Therefore, a community seeking a variance from these standards must, as a condition of initial acceptance of such measures, explain in writing the nature and extent of the variances sought and reasons for their adoption. This request must include supporting economic, topographic, hydrologic, and other technical data.²⁵⁹

In addition to establishing the minimum federal standards, the regulations have developed guidelines to encourage the formulation and adoption of overall comprehensive management plans for flood-prone and mudslide-prone areas.²⁶⁰ The latest regulations²⁶¹ are in the "proposed" stage and should be finalized within the next few months. The model ordinance is based on the proposed regulations and is designed for use by a community which has received all the data which the Administrator is required to furnish.

Sale of Insurance and Claims Adjustment

The flood insurance program is administered within communities by private insurance companies who have become members of the National Flood Insurers Association.²⁶² The Association has entered into an agreement with the FIA to administer the program at the local level.²⁶³ Membership in the Association is open to any insurance company authorized to do business under the laws of the state which has total assets of at least one million dollars; agrees to assume a

258. 24 C.F.R. §1910.5(a) (1973).

259. *Id.* 1910.6(d).

260. 24 C.F.R. §1910.21 (1973).

261. Proposed HUD Reg. §§1909-1917, 40 Fed. Reg. 13420 (1975).

262. See note 208, *supra*.

263. 24 C.F.R. §1912.2 (1973).

minimum net loss liability of \$25,000 under policies of insurance issued in the name of the association for each accounting period of membership; pays an admission fee equal to \$50 for each \$25,000 of participation; and agrees to such other reasonable conditions as the Association may prescribe.²⁶⁴

In accordance with the agreement, the Association arranges for prompt adjustment and settlement of all claims arising from policies issued under the program.²⁶⁵ Upon the disallowance by the Association of any claim or upon refusal of the claimant to accept the amount allowed upon any such claim, the claimant, within one year after the date of mailing the notice of disallowance or partial allowance, may institute an action against the association or the particular insurer which denied the claim.²⁶⁶ This action shall be brought in the U.S. District Court for the district in which the insured property or the major portion thereof is situated, without regard to the amount in controversy.²⁶⁷

Mandatory Purchase Requirements

In order to facilitate congressional intent and put teeth into the Flood Insurance Program, Congress in 1973 enacted the Flood Disaster Protection Act²⁶⁸ amending the National Flood Insurance Act of 1968 to require the purchase of flood insurance on or after March 2, 1974, as a pre-condition to receiving any form of federal or federally related financial assistance.²⁶⁹ This restriction applies to funds for acquisition or construction purposes in any flood plain area identified as having special flood hazards and located within any community currently participating in the National Flood Insurance Program.²⁷⁰ For one year after formal notification, these statutory requirements do not apply. However, one year after formal notification, the requirement applies to all identified special flood hazard areas, so that after that date no federal financial assistance can legally be provided for building in these areas unless the community has entered the program and flood insurance has been purchased.²⁷¹

The term "federal" or "federally related" financial assistance includes not only loans, grants, guarantees, and similar forms of direct and indirect assistance from federal agencies, such as FHA or VA

264. *Id.*

265. 24 C.F.R. §1912.21 (1973).

266. 24 C.F.R. §1912.22 (1973).

267. *Id.*

268. 42 U.S.C.A. §4001-4128 (1973).

269. 42 U.S.C.A. §4012(a) (1975 Supp.).

270. 39 Fed. Reg. 28186 (1974).

271. *Id.*

mortgage insurance, but also any similar forms of assistance from federally insured or regulated lending institutions. This includes banks, savings and loan associations and credit unions.²⁷² Acquisition or construction purposes include all forms of construction, reconstruction, repair, or improvements to real estate, whether or not the value of the building is enhanced. Moreover, the flood insurance purchase requirement applies to both private and public recipients.²⁷³ Congress currently takes the view that state-owned properties covered by a State policy of self-insurance, as a substitute for flood insurance, satisfies the mandatory requirements, but only to the extent that the self-insuring fund is actually in existence and meets Federal criteria outlined in the regulations.²⁷⁴

If the assistance received is in the form of a loan, insurance need not be maintained in excess of the outstanding balance or beyond the term of the loan. However, if a federal grant is involved, the Federal investment should be protected for the entire useful life of the assisted project and for the full insurable value of the property or the maximum amount of insurance available, whichever is less. The requirement applies to all new loans, as well as to any modification of outstanding loans, but does not apply to existing loans for which no new approvals or changes in conditions are necessary.²⁷⁵

Federally supervised private lending institutions must require flood insurance on personal property within an identified flood-prone area only if the loan for personal property was part of, or made at the same time as, a loan or loan modification involving real estate or a mobile home, and the personal property itself was made subject to the real estate mortgage or chattel mortgage or other security interest for the benefit of the lender. Thus, personal property, such as an inventory financed by a supervised bank through an unsecured line of credit, independent of a real estate loan, would not be subject to the flood insurance requirement. The bank, however, may require such coverage on its own.

The mandatory insurance requirement also applies to federal disaster assistance loans or grants for permanent repair or reconstruction after a catastrophe has occurred.²⁷⁶

272. *Id.*

273. *Id.*

274. 42 U.S.C.A. §4012(a), (c), (e) (1975 Supp.).

275. 42 U.S.C.A. §4012(b) (1975 Supp.).

276. Senate Comm. on Bkg., Housing and Urban Affairs, S. Rep. No. 93-583, 93rd Cong., 2d Sess., 9-22 (1973).

THE TAKING ISSUE²⁷⁷

The Fourteenth Amendment to the United States Constitution provides that no state shall "deprive any person of . . . property without due process of law. . . ." ²⁷⁸ Therefore, it is necessary to consider the extent to which communities may prevent the use of flood plains without treading upon the due process prohibitions.

In 1922, the United States Supreme Court issued its landmark decision in *Pennsylvania Coal Company v. Mahon*²⁷⁹ stating: "The general rule at least is, that while property may be regulated to a certain extent, if the regulation goes too far it will be recognized as a taking."²⁸⁰ The case also established the "diminution in value" test under which "(O)ne fact for consideration in determining such limits is the extent of the diminution. When it reaches a certain magnitude, in most if not all cases, there must be an exercise of eminent domain and compensation to sustain the act."²⁸¹

Subsequent to the *Pennsylvania Coal* decision, the Supreme Court supplied few guidelines to aid state courts in determining when the regulation exceeds Constitutional standards or the diminution becomes too great. In 1962, the Court decided *Goldblatt v. Hempstead*,²⁸² in which it laid down the following test for determining the validity of zoning ordinances:

"To justify the State in thus interposing its authority on behalf of the public, it must appear, first, that the interests of the public require such interference, and second, that the means are reasonably necessary for the accomplishment of the purpose, and not unduly oppressive upon individuals."²⁸³

In more recent cases considering the taking issue, the above statement is broken down into its three basic elements:

- (1) a public purpose must motivate the law;
- (2) the restriction selected must be reasonably related to the public objective; and

277. The discussion in this section is not intended to be a complete coverage of the taking issue. It is designed to acquaint the reader generally with the problem and the prevailing judicial view. For a more complete discussion, see F. Bosselman, D. Collins, J. Banta, *The Taking Issue* (1973); 1 U.S. Water Resources Council, *Regulation of Flood Hazard Areas to Reduce Flood Losses*, pt. III, Ch. 4 (1971) [hereinafter cited as U.S.W.R.C. Report]; Z. Plates, *Flood Lines and the Police Power*, 52 *Tex. L. Rev.* 201 (1974).

278. U.S. Const. amend. XIV, §1.

279. 260 U.S. 393 (1922).

280. *Id.* at 415.

281. *Id.* at 413.

282. 369 U.S. 590 (1962).

283. *Id.* at 594, 595, citing *Lawton v. Steele*, 152 U.S. 133, 137 (1894).

- (3) the resulting burden must not be "unduly" or "excessively" oppressive upon affected individuals.²⁸⁴

Although the flood plain zoning cases raise all three issues, the third, in the guise of the "diminution of value" test, seems to dominate the cases and will therefore be focused upon in the remainder of this section. It is interesting to note, however, that *Goldblatt* made the diminution test much less important for as the Court stated: "Although a comparison of values before and after is relevant . . . it is by no means conclusive."²⁸⁵ The Court also noted that there is no constitutional right to put one's property to its highest and best or most economically profitable use.²⁸⁶

As for the public purpose requirements, even in those in which cases have stricken flood plain zoning ordinances, the courts have universally held that the prevention of and protection from floods is a proper public purpose for which legislative bodies can validly exercise the police power. The problem in this area occurs when the public objective is not the protection of the public from floods, but rather the setting aside of private lands to serve as flood storage areas, thereby conferring a benefit on other members of the public at the owner's expense. Cases involving such ordinances have generally found them to be unconstitutional takings.²⁸⁷ Included in this group of cases are *Morris County Land Improvement Company v. Parsippany-Troy Hill Township*²⁸⁸ and *Hager v. Louisville and Jefferson County Planning and Zoning Commission*.²⁸⁹ In *Morris County* the court stated:

There is no substantial evidence in this case that the matter of intra-municipal flood control had any bearing on the adoption of the . . . regulations. It does not appear that the rise in the water level in the meadows in times of heavy rainfall affected any other area in the township. The emphasis was on permitting that rise within the area as a detention basin for the benefit of lower valley sections rather than on any effort to prevent or channel it. This case, therefore, does not involve the matter of police power regulation of the use of the land in a flood plain on the lower reaches of a river by zoning, building restrictions, channel

284. See, e.g., *Potomac Sand and Gravel Co. v. Governor of Maryland*, 226 Md. 358, 293 A.2d 241 (1972).

285. *Goldblatt v. Town of Hempstead*, 369 U.S. 590, 594 (1962).

286. *Id.* at 592. For a discussion of the highest and most beneficial use rule as applied in Florida see, Commentary, *Preservation of Florida's Agricultural Resources Through Land Use Planning*, 27 U. Fla. L. Rev. 130, 135-6 (1974).

287. U.S.W.R.C. Report, *supra* note 277, at 394.

288. 40 N.J. 539, 193 A.2d 232 (1963).

289. 261 S.W.2d 619 (Ky. Ct. App. 1953).

encroachment lines or otherwise and nothing said in this opinion is intended to pass upon the validity of any such regulations.²⁹⁰

As previously noted, the dispositive issue in almost all cases treating a constitutional challenge to flood plain zoning is the extent of deprivation to the individual landowner caused by the restrictive provisions of the legislation.

There are two alternative approaches to determining whether the burden imposed on a landowner is unduly or excessively oppressive. The older approach involves a strict comparison of property values before and after the imposition of the regulation.²⁹¹ The more modern approach examines the possible uses to which the property can be put after the regulation to determine if the landowner has been deprived of all "reasonable" or "beneficial" use of his land.²⁹² The latter test clearly dominates today.

The courts have differed in deciding exactly what constitutes a reasonable, practical or beneficial use. The discrepancy among courts is indicative of their adherence to the view expressed by Justice Holmes in *Pennsylvania Coal*, that "the question depends upon the particular facts"²⁹³ of each case.

In *Dooley v. Town Plan and Zoning Commission*,²⁹⁴ the Connecticut Supreme Court dealt with a typical flood plain zoning ordinance. The property in question was located about a mile and a half from Long Island Sound and consequently was unsuitable for use as a marina, boathouse or landing dock.²⁹⁵ Likewise, there was expert testimony that the property was unsuitable for farming or nursery gardening.²⁹⁶ The remaining permitted uses under the ordinance were for parks and playgrounds which "restricted potential buyers of the property to town or governmental users,"²⁹⁷ and wildlife sanctuaries which, in the words of the court, "obviously . . . does not provide the landowner with any reasonable or practical means of obtaining income or a return from his property."²⁹⁸ The court held that:

There can be no doubt that, from the standpoint of private ownership, the change of zone to flood plain district froze the area

290. *Morris County Land Improvement Co. v. Parsippany-Troy Hills Township*, 40 N.J. 539, 556, n.3, 193 A.2d 232, 242, n.3 (1963).

291. *Goldblatt v. Town of Hempstead*, 369 U.S. 590 (1922).

292. *Morris County Land Improvement Co. v. Parsippany-Troy Hills Township*, 40 N.J. 539, 193 A.2d 232 (1963).

293. *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393, 413 (1922).

294. 151 Conn. 304, 197 A.2d 770 (1964).

295. *Id.* at 311, 197 A.2d at 773.

296. *Id.*

297. *Id.* at 307, 197 A.2d at 772.

298. *Id.* at 307, 197 A.2d at 773.

into a practically unusable state. The uses which are presently permitted in the new zone place such limitations on the area that the enforcement of the regulations amounts, in effect, to a practical confiscation of the land. . . . The plaintiffs have been deprived . . . of any worthwhile rights or benefits in their land.²⁹⁹

On the other hand, in 1972 a more public interest-oriented approach was adopted by the Massachusetts Supreme Judicial Court in *Turnpike Realty Company v. Town of Dedham*.³⁰⁰ The case concerned a flood plain zoning ordinance similar to the one rejected in *Dooley*. The permitted uses of the land were limited to, "[a]ny woodland, grassland, wetland, agricultural, horticultural or recreational use."³⁰¹ No building or structure was allowed within the area except in conjunction with one of the above described permitted uses, and then only by special exception.³⁰² The land in question was periodically flooded by four or five feet of water due to the opening of flood gates on a nearby dam.³⁰³

It is important to note that the Massachusetts court rejected the rationale of *Morris County*³⁰⁴ in which the court stated that the prime purpose of the ordinance was to retain the land in its natural state for use as a flood detention basin.³⁰⁵ The court stated that the "validity of this by-law does not hinge upon the motives of its supporters."³⁰⁶ The court also rejected the argument that the ordinance was unduly restrictive on the grounds that the plaintiff could still use the property for the beneficial uses listed above.³⁰⁷

Massachusetts reaffirmed its liberal trend a year later in *Vazza Properties, Inc. v. City Council of Woburn*.³⁰⁸ In *Vazza*, an application for a building permit to erect an apartment complex with adjacent parking areas was denied by the City council. The council based its denial on the conclusion that the proposed development "would aggravate a periodic flooding problem in nearby residential areas by eliminating a natural, soft-peat holding area for . . . the surrounding areas."³⁰⁹ In addition, the increased flooding of adjacent

299. *Id.* at 312, 197 A.2d at 773-4.

300. 284 N.E.2d 891 (Mass. 1972).

301. *Id.* at 894.

302. *Id.*

303. *Id.* at 899.

304. *Morris County Land Improvement Co. v. Parsippany-Troy Hills Township*, 40 N.J. 539, 193 A.2d 232 (1963).

305. *Turnpike Realty Co. v. Town of Dedham*, 284 N.E.2d 891, 894-5 (Mass. 1972).

306. *Id.* at 895.

307. *Id.* at 899.

308. 296 N.E.2d 220 (Mass. Ct. App. 1973).

309. *Id.* at 221.

streets would result in dangerous traffic congestion.³¹⁰ Although the court did not treat the taking issue directly, the decision is significant in that it held that the above stated findings of the city council were sufficient to justify a conclusion that the council did not abuse its discretion.³¹¹

The California courts have likewise taken a very progressive stance with respect to regulation of flood plains. In *Turner v. County of Del Norte*³¹² the court upheld a flood plain zoning ordinance which absolutely prohibited permanent residences and commercial or public buildings in the designated flood plain, which included the plaintiff's property. The ordinance specifically limited the use of the land to parks, recreational and agricultural uses. Evidence showed that four times since 1927 the area including plaintiff's land had been flooded by the Klamath River. The last flood occurred in 1964 and swept away everything on plaintiff's property, including roads, water systems, an office and a mobile home.³¹³ In light of these facts, the court had no trouble in finding that the zoning ordinance was a valid exercise of the police power.³¹⁴ With respect to the remaining uses, the court held that plaintiffs could use their lands in a number of ways which might be of economic benefit to them.³¹⁵

The residual beneficial uses relied upon in the *Turnpike Realty and Turner* decisions³¹⁶ might well prove more difficult to establish were the regulated areas coastal wetlands or beaches. Unlike inland flood plains that are often suitable for agriculture, wetlands and ocean front property normally require filling, construction, or some other improvement to have any economic value for a private owner. To prohibit all development, then, would be to eliminate all potentially beneficial uses. Even under the most liberal interpretation of the "remaining beneficial use" test, such a prohibition might well constitute a compensable taking. It should be recognized, however, that any such "taking" decision would proceed from the proposition that the regulated property could, if left unregulated, be devoted to some use of economic benefit to its owner. For where property has no economic potential, regulation of its use would deprive the owner of no real interest. The assumption that land can support an economically beneficial use, though rarely questioned by the courts, is not always valid—especially for wetlands and beachfront property. Here the

310. *Id.*

311. *Id.* at 223.

312. 24 Cal. App.3d 311, 101 Cal. Rptr. 93 (Dist. Ct. App. 1972).

313. *Id.* at 313, 101 Cal. Rptr. at 94.

314. *Id.* at 314, 101 Cal. Rptr. at 96.

315. *Id.*

316. See discussion *supra* at notes 300-307 and 312-15.

natural features of the land often prove so inhospitable or hazardous as to destroy its potential for profitable development. Under such circumstances, it is difficult to see how even the severest of restrictions could result in a compensable taking.

The New Jersey courts have addressed this issue directly in the companion cases of *Spigle v. Borough of Beach Haven*.³¹⁷ The initial decision by the state's supreme court upheld an ordinance establishing a setback line for coastal areas subject to severe storm damage. Considering both the potential public harm and the probable private losses that would result from any construction oceanward of the building line, the court concluded the "regulation prescribed only such conduct as good husbandry would dictate that plaintiffs should themselves impose on their own lands."³¹⁸ The mere fact that the setback line might prohibit all construction on a given property was insufficient to sustain a "taking" claim. An owner must also show "the existence of some present or potential beneficial use of which he has been deprived."³¹⁹ From the court's perspective, the erection of a building in a hazardous area where it was almost certain to be severely damaged or destroyed could not be regarded as a project bringing any real economic benefit to the landowner. By prohibiting such construction, then, the regulation merely affirmed what natural conditions alone would dictate to a reasonable person.³²⁰

That the ordinance was valid on its face, however, did not prevent the plaintiff from asserting his "taking" claim altogether. Indeed, in subsequent litigation *Spigle* convinced the state's Appellate Division that at least one of his proposed projects could meet the threshold requirement laid down by the supreme court. He first demonstrated that technically his planned dwelling could be constructed seaward of the setback line in such a way as to withstand predicted storm forces. He further showed that it would be economically feasible for him to undertake such a project.³²¹ He thereby established to the satisfaction of the court that his proposed use of his land would in fact be to his benefit.³²² Having recognized *Spigle's* real beneficial interest in developing the property, the court then found little difficulty in holding the imposition of the setback, which effectively precluded all construction on *Spigle's* property, "to constitute a taking."³²³

317. 46 N.J. 479, 218 A.2d 129 (1966), *cert. denied*, 385 U.S. 831 (1966); *Spigle v. Borough of Beach Haven*, 116 N.J. Super. 148, 281 A.2d 377 (App. Div. 1971).

318. 218 A.2d at 137.

319. *Id.*

320. *Id.*

321. *Spigle v. Borough of Beach Haven*, 281 A.2d 377, 385 (App. Div. 1971).

322. *Id.* at 385-86.

323. *Id.* at 386. *Spigle* failed, however, to convince the court that his other proposed residential construction on another portion of the beach would be "economically feasible."

Significantly, a recent decision by Wisconsin's Supreme Court concerning the regulation of wetlands adopted a rationale similar to that developed in *Spiegle* for resolving the "taking" question. In *Just v. Marinette County*,³²⁴ the court sustained a prohibition on the filling of wetlands as a valid exercise of the police power. More importantly, the court dismissed plaintiff's taking claim by invoking a rather novel "natural state" standard for assessing the value of his interest in the affected property:

As the court stated:

"The Justs argue their property has been severely depreciated in value. But this depreciation of value is not based on the use of the land in its natural state but on what the land would be worth if it could be filled and used for the location of a dwelling."³²⁵

The court argued that the value of plaintiff's interest in his property should instead be based only upon the uses for which it was suited in its natural state. As the wetlands area was clearly unfit for residential development in the absence of artificial fill, the court concluded that a regulation which effectively precluded such use deprived plaintiff of no real interest in his property and thus did not constitute a compensable taking.³²⁶

In summary, adoption of the modern "remaining beneficial use" test has allowed considerable diminution of property values through zoning regulation. This trend is especially pronounced in flood plain zoning cases. Recognition of the hazards to the landowner and the potential harm to the public posed by homes and other structures in flood-prone areas has prompted some courts to uphold prohibition of all construction without compensating the affected landowner.³²⁷ Moreover, where natural conditions themselves prove so hazardous as to obviate any profitable use of a property, the rationale advanced by both *Spiegle*³²⁸ and *Just*³²⁹ affords yet another basis for severely regulating land use without compensation. Indeed, this latter ap-

Given the natural constraints of the exposed and unstable shore, the cost of building a safe structure would be prohibitive. The court thus concluded that "this tract had no present beneficial use for residential construction" and that *Spiegle* was "entitled to no compensation as to this property." *Id.* at 387.

324. 56 Wisc.2d 7, 201 N.W.2d 761 (1972).

325. 201 N.W.2d at 771.

326. *Id.* at 770-71. The same rationale used in *Just* was recently adopted by the New Hampshire Supreme Court in *Sibson v. State*, 336 A.2d 239, (N.H. 1975) to uphold a similar wetlands statute.

327. See generally, Plater, *The Takings Issue in a Natural Setting: Floodlines and the Police Power*, 52 Texas L. Rev. 201 (1974).

328. See discussion *supra* at notes 317-23.

329. See discussion *supra* at notes 324-26.

proach might well provide the most persuasive argument for sustaining flood plain restrictions. The construction of homes and other structures in areas where they would inevitably be destroyed by floods does not represent a reasonable beneficial use of land, and therefore the denial of such uses should simply not be regarded as a taking.

THE MODEL ORDINANCE³³⁰

The following is a "model," and therefore it is necessary that it be altered to fit the particular needs of any community desiring to utilize it. For instance, by deletion of Section Eight, non-coastal communities can adapt the model to regulate only riverine situations. Such a modification should be accompanied, however, by conforming parts of other sections, such as the reference to "mean high water line," to the ordinance as revised.

Perhaps the greatest need for individual adaptation will be encountered with respect to the procedural and administrative provisions of the ordinance. After circulating the first draft of the ordinance, the authors had intended to delete the administrative and

330. The development of this model ordinance was not in any way connected with the Federal Insurance Administration (FIA). However, drafts of the model were reviewed and commented on by personnel in the Atlanta Regional Office of the FIA and their suggestions have been incorporated herein.

In the first half of 1975 basic research on flood plain zoning and the NFIP was conducted by law students working on a project sponsored by the NOAA Office of Sea Grant, U.S. Department of Commerce, to develop model flood plain and hurricane zoning ordinances. Additional research was done by a group of students who participated in a two-quarter seminar on the legal problems associated with flood plain zoning and the NFIP. The seminar was held during the Winter and Spring quarters of 1975 at the University of Florida College of Law. All fifty states plus Puerto Rico were contacted to determine what work had been done in other states on flood plain zoning. Information was received from 31 of the states and proved to be quite useful in formulating the ordinance. In addition two Florida counties, Hillsborough and Citrus, the Florida Bureau of Coastal Zone Planning and the Florida Department of Community Affairs were consulted during the preparation of the ordinance so that the final product would be of practical use to local communities.

Members of the Law Center Sea Grant project staff attended the regional hearings on the latest proposed FIA regulations which were held in Miami in June of 1975 and the Senate hearings on the Eagleton bill (*see* note 182 *supra*) held in Washington, D.C. in November of 1975 in order to get input from those who opposed the NFIP and to determine what major problems had been encountered in its implementation.

The first draft of the ordinance was sent to all parties who had contributed input towards its development and to FIA officials in Atlanta. Comments were received from most parties and the suggestions made were incorporated wherever possible. The second draft was given a less extensive circulation due to time limitations but received suggestions were again incorporated wherever possible.

Large parts of this model have been incorporated into a sample guide flood plain ordinance entitled "Guide Flood Plain Management Regulations for Inclusion Into Existing Zoning Ordinance As An Overlay" now being made available to inquiring communities in HUD Region IV by the HUD Regional Flood Insurance Office in Atlanta, Georgia.

procedural provisions and recommend that all communities use the substantive provisions as overlays to their existing zoning ordinances. It is still felt that this would be the best procedure wherever possible. However, talks with officials in two localities demonstrated that due to the more technical nature of flood plain management, a need existed in some areas for procedural provisions that would be somewhat different than those necessary to traditional zoning decisions.

The administrative and procedural provisions set forth in the ordinance are modeled after those contained in the United States Water Resources Council's 1972 publication *Regulation of Flood Hazard Areas to Reduce Flood Losses*, a two-volume work containing model ordinances dealing with riverine, coastal and subdivision regulations in flood plain areas. The provisions have been changed where comments indicated problems existed or where necessary in order to mesh with the remainder of the ordinance. These administrative and procedural provisions are not required by the NFIP. It is therefore again urged that existing local administrative procedures be used to the maximum extent practicable. If the ordinance's procedures are utilized, care must be taken to assure that the community adopting them has the power to set up the boards and other administrative bodies required by the ordinance.

The ordinance that follows was designated to comply with the requirements of the National Flood Insurance Act, 42 U.S.C. §4001 et seq. (1970) as specified in the regulations promulgated thereunder appearing in Volume 40 of the Federal Register on March 26, 1975, at pages 13420-13433. These regulations are still in the proposed stage, and therefore, it may be necessary to change some of the substantive provisions of the model in order to take into account any changes appearing in the final regulations.

Following each section or subsection of the model ordinance containing a provision that is not self-explanatory, there will be found a brief explanation of the purpose of the provision, its source, and citations to similar provisions in models published by various state organizations.

Sections which are asterisked (*) are felt by the authors to be required by the Federal regulations. The remaining sections are either procedural or optional substantive provisions.

To facilitate citation to sources, the following abbreviations have been used:

- (1) The proposed federal regulations appearing in 40 Federal Register at pages 13420-13433 (1975) are cited as 40 Fed. Reg., followed by the section directly involved;

(2) Citations to the United States Water Resources Council two-volume publication *Regulation of Flood Hazard Areas to Reduce Flood Losses* (1972) are cited as USWRC—Vol. _____, p. _____, §_____.

MODEL FLOOD PLAIN MANAGEMENT ORDINANCE

SECTION ONE. STATUTORY AUTHORIZATION, FINDINGS OF FACT, PURPOSE AND OBJECTIVES.

1.1 *Statutory Authorization*

The Legislature of the State of _____ (state) has in _____ (statutes) delegated the responsibility to local governmental units to adopt regulations designed to minimize flood and associated losses. Pursuant thereto, the _____ (governing body) of _____ (local unit), _____ (state), does ordain as follows:

1.2 *Findings of Fact*

[(a) Areas of _____ (local unit), _____ (state), have been designated by the Federal Insurance Administration as flood hazard areas eligible to participate in the National Flood Insurance Program;]

[(b) The regulations adopted by the Federal Insurance Administration under the authority of the National Flood Insurance Act of 1968, 42 U.S.C. §§4001 et seq., as amended, require that participating communities adopt legislation designed to regulate flood plain development;]

(c) The flood hazard areas of _____ (local unit) are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base all of which adversely affect the public health, safety and general welfare;

(d) Flood and associated losses are caused in part by the occupancy of flood hazard areas by uses which are vulnerable to damage by floods or erosion.

1.3 *Statement of Purpose*

It is the purpose of this ordinance to provide a uniform basis for the preparation and implementation of sound flood plain management regulation and to further the stated objectives.

(These provisions were modeled after USWRC—Vol. 1, p. 521, §§ 1.0-1.3. The material contained in the brackets in §1.2 (a), (b) should not be inserted unless the adopting community will be participating in the National Flood Insurance Program.)

1.4 *Objectives*

The objectives of this ordinance are:

- (a) To protect human life and health;
- (b) To minimize expenditure of public monies for costly flood control projects;
- (c) To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (d) To minimize prolonged business interruptions;
- (e) To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in flood plains;
- (f) To help maintain a stable tax base by providing for sound use and development of flood-prone areas in such a manner as to minimize future flood blight areas,
- (g) To insure that potential land and home buyers are notified that property is in a flood hazard area; and,
- [(h) To qualify property owners for the insurance and subsidies provided by the National Flood Insurance Program.]

(These objectives are modeled after those laid out in the Wisconsin Flood Plain Management Program, Ch. NR 116 §116.03, Wisconsin Administrative Code. The provisions therein seemed to be the most comprehensive and forceful of those statements of purpose examined. The modifications made of the Wisconsin objectives have generally been with the goal of achieving greater specificity and impact. The bracketed material should again be deleted if a community is not planning to enter the NFIP.)

SECTION TWO. DEFINITIONS

Unless specifically defined below, words or phrases used in this ordinance shall be interpreted so as to give the meaning they have in common usage and to give this ordinance its most reasonable application.

(Note: Those definitions which have been taken verbatim or almost verbatim from 40 Fed. Reg. §1909.1 (1975) are indicated by double asterisks (**) and will not be further commented on except as noted.)

(1) *Accessory use*: A use of a nature customarily subordinate or incidental to, and located on the same parcel as, the principle use of any structure or property.

(This definition is taken from USWRC—Vol. 1, p. 535, §10.)

** (2) *Area of special flood hazard*: That land within a community in the flood plain which is subject to a one percent (1%) chance of flooding annually.

(3) *Breakaway walls* within the meaning of Section 8.2(a)(3) shall include but not be limited to any type of walls, whether solid or lattice, and whether constructed of concrete, masonry, wood, metal, plastic or any other suitable building materials, which are not part of the structural support of the building and which are so designed as to break away, under abnormally high tides or wave action, without damage to the structural integrity of the building on which they are used or any buildings to which they might be carried by flood waters.

(This definition is designed as a general guideline for what constitutes a breakaway wall. One problem encountered in preparing the ordinance and this particular definition is that there are presently no engineering standards available for design of breakaway walls.)

** (4) *Coastal high hazard area*: That portion of the flood plain having special flood hazards that is subject to high velocity waters, including hurricane wave wash and tsunamis.

(5) *Density of residential development*: The maximum number of residential units which may be constructed on a given amount of land under the existing zoning classification of that land, without consideration of the provisions of this ordinance.

(This definition was formulated to clarify the density transfer provisions of Section 12.3(b).)

(6) *Expansion of existing mobile home parks*: The construction of facilities, including concrete pads, if any, or if no such pads are to be provided, then the installation of utilities and final site grading, started after the effective date of this ordinance in a mobile home park existing on the date of this ordinance. "Expansion of mobile home parks" shall not include the rental, sale, or lease of any mobile home space or site which is ready for use or occupancy on the effective date of this ordinance and is located within a mobile home park existing on the effective date of this ordinance.

(While this definition is not expressly stated in the Federal Regulations, it is an interpolation based on the federal definition of "new construction." 40 Fed. Reg. §1909.1 (1975).)

(7) *Fair market value*: The fair market value of property or structures, as used in the definition of "substantial improvement" shall mean, the value as determined by the tax assessor, either (a) before the improvement was started, or (b) if the structure has been damaged and is being restored, before the damage occurred.

(This definition has been extracted from the federal definition of "substantial improvement," with the addition of the qualifier "fair" to the federal term "market value." 40 Fed. Reg. §1909.1 (1975).)

*(8) *Flood or flooding*:

(1) A general and temporary condition of partial or complete inundation of normally dry land areas from:

- (a) the overflow of inland or tidal waters, or
- (b) the unusual and rapid accumulation of runoff of surface waters from any source.

(2) The collapse or subsidence of land along the shore of a lake or other body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels or suddenly caused by an unusually high water level in a natural body of water, accompanied by a severe storm or force of nature, such as a flash flood or an abnormal tidal surge, or by some similarly unusual event which results in flooding as defined in (a) above.

(The provisions in the federal definition referring to mudslides have been deleted and the phrases "unanticipated force of nature" and "unforeseeable event" have been altered to eliminate the words "unanticipated" and "unforeseeable" because it was felt that a problem might arise where flash floods, etc., were forecast and therefore anticipated or foreseen—the results should still be considered floods.)

(9) *Flood control works*: Any man-made construction, such as a dam, levee, groin or jetty designed to alter the flood potential of the body of water on or adjacent to which it is built.

*(10) *Flood plain*: Any normally dry land area that is susceptible to being inundated by waters from any source (see definition of flooding).

*(11) *Floodproofing*: A combination of structural and/or non-structural additions, changes, or adjustments to properties or structures subject to flooding which will reduce or eliminate flood damages to properties, water, and sewer facilities, structures, or contents of buildings.

(12) *Flood Fringe Area*: That area of the flood plain not required to carry and discharge the regulatory flood waters, nor within the Coastal High Hazard Area, but still lying within the area of special flood hazard.

(13) *Floodway*: The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the 100-year flood without cumulatively increasing the water-surface elevation more than one foot at any one point.

("Floodway" and "flood fringe" have become, by general usage, the accepted terms designating the two sections of varying hazard within the flood plain of the regulatory flood. The definition here provided is one adopted from provisions found in the model ordinances of several states, including, among others:

ILLINOIS—Guides for Flood Plain Regulation (Department of Local Government Affairs), PMS 74-2 (1974);

OHIO—Model Flood Plain Zoning Regulations (Department of Natural Resources, Division of Planning: Water Resources Planning Section); and

OREGON—Flood Plain Management for Oregon Cities and Counties (Bureau of Governmental Research and Service, University of Oregon and Oregon State Water Resources Board) (1971)—with the additional exclusion of the Coastal High Hazard Area which would not be required in an ordinance restricted to riverine conditions.

Evidently, much confusion exists over the "one foot" provision in the federal definition of "floodway." The federal regulations do *not* allow uses in the floodway which will cumulatively raise the 100-year flood elevation by a maximum of one foot. Consultations with the FIA and the Corps of Engineers confirmed that the one foot increase is used in the initial determination of the floodway itself and is not meant to allow a subsequent heightening of the 100-year flood elevation, once the limits of the floodway have been so set. That is, in order to determine that portion of the flood plain which will be designated as the floodway, one begins at the outer limits of the flood plain and assumes full development inward, toward the river or stream channel, on both sides of the flood hazard area, until the point is reached where development will cause the 100-year flood elevation to rise by one foot. The area remaining between this boundary and the channel is the floodway, and because any further development here would necessarily increase the 100-year flood elevation by more than one foot, no such development can be countenanced.)

°(14) *Habitable floor*: Any floor used for living, which includes working, sleeping, eating, cooking or recreation, or any combination thereof. A floor used only for storage purposes is not a habitable floor.

(While the above definition is taken verbatim from the Federal Regulations, it is believed that the definition would prove more workable if it were worded—"any floor capable of being used for." This would make administration easier since an official would not

have to prove that a floor was actually used for living purposes. Since this definition would also be more restrictive than the federal definition, there would be no problem in using such a definition in an ordinance designed to comply with the federal regulations).

(15) *Mean high water*: A tidal datum, determined by taking the arithmetic mean of the high water heights observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch).

(16) *Mean high water line*: The intersection of the land with the water surface at the elevation of mean high water.

(17) *Mean low water*: A tidal datum, determined by taking the arithmetic mean of the low water heights observed over a specific 19-year Metonic cycle (the National Tidal Datum Epoch).

(18) *Mean low waterline*: The intersection of the land with the water surface at the elevation of mean low water.

(These definitions are based on those provided by the National Ocean Survey, National Oceanic & Atmospheric Administration: Tide & Current Glossary (Washington, D.C., 1975). Similar definitions may also be found in the Florida Coastal Mapping Act of 1974, FLA. STAT. §177.27 (15)-(18).

*(19) *Mean sea level*: The average height of the sea for all stages of the tide over a nineteen-year period, usually determined from hourly height observations on an open coast or in adjacent waters having free access to the sea.

*(20) *New construction*: Those structures the construction or substantial improvement of which is begun after _____
(effective date of this ordinance)

New construction, for purposes of this ordinance, shall also mean those mobile homes within mobile home parks for which construction has started after _____,
(effective date of this ordinance)

within a new mobile home park, or expansion of an existing mobile home park where repair, construction or improvement of streets, utilities, and pads equals or exceeds 50% of the fair market value of the streets, utilities, and pads as determined by the Tax Assessor before the repair, reconstruction or improvement has commenced.

*(21) *Person*: Any individual or group of individuals, corporation, partnership, association, or any other organized group of persons, including state and local governments and agencies thereof.

*(22) *Regulatory flood*: For purposes of this ordinance, a flood event having a 1% chance of occurring in any given year, although the flood may occur in any year, i.e., the 100-year flood.

(This incorporates the 100-year flood as the standard; however, a different level could be adopted if desired. The 100-year flood is the

standard being adopted by the National Flood Insurance Program and is therefore the minimum for anyone desiring to enter the program.)

(23) *Regulatory flood elevation:* The crest elevation in relation to mean sea level expected to be reached by the regulatory flood at any given point in an area of special flood hazard.

“(24) *Start of construction:*

(a) The first placement of permanent construction of a structure on a site, such as pouring of slabs or footings or any work beyond the stage of excavation. Permanent construction does not include land preparation such as clearing, grading, or filling; nor does it include excavation for a basement, footings piers, or foundations or the erection of temporary forms; nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure.

(b) For a structure without a basement or poured footings, the start of construction includes the first permanent framing or assembly of the structure or any part thereof on its piling or foundation for sites other than mobile home parks, or the affixing of any prefabricated structures to its permanent site.

(c) For mobile home parks which are equipped with concrete pads on which mobile homes are to be placed, “start of construction” means the date on which installation of utilities and final site grading are completed.

(The above ends the federal definition for “start of construction.”)

((d) For any residential development, such as a mobile home park or subdivision, which has received the necessary approval from federal, state, and local authorities, the start of construction of the first unit shall be deemed to constitute the start of construction for the entire development. However, the construction deemed to have been so begun must be completed within _____ (no.) — years, and

if construction of the development is undertaken in phases, then the start of construction of each phase will be deemed to have taken place independently of the start of construction of any other phase. Any construction not completed within _____ (no.) years shall

be deemed new construction and shall be regulated as such in compliance with the provisions of this ordinance.]

(The above paragraph (d) should not be used if a community is adopting this ordinance to comply with the NFIP. The paragraph was

added to the model because it was felt that the federal definition was too restrictive and would be subject to attack under the doctrine of equitable estoppel. See generally, 49 ALR 13, *Retroactive Effect of Zoning Regulation* (1973), 28 AM. JUR. 2d *Estoppel & Waiver* §§ 81-113 (1966). See also *Sakolsby v. City of Coral Gables*, 151 So.2d 433 (Fla. 1963); *Bregar v. Britton*, 75 So.2d 753 (Fla. 1954); *Town of Largo v. Imperial Homes Corp.*, 309 So.2d 571 (2d D.C.A. Fla. 1975). By the time a developer has cleared his land, drawn up plans, put in roads, obtained permits, etc., it would appear that substantial reliance has been placed on the previous zoning of the property and to treat the start of construction of each individual home as a separate start raises serious legal questions.)

“(25) *Structure*: A walled and roofed building, other than a gas or liquid storage tank, that is principally above ground and affixed to a permanent site, as well as a mobile home on foundation. The term includes a building while in the course of construction, alteration or repair but does not include building materials or supplies intended for use in such construction, alteration or repair, unless such materials or supplies are within an enclosed building on the premises. The words “building” and “structure” shall have the same meaning for the purposes of this ordinance.

(It has been suggested that this definition be broadened to cover all construction that would normally be considered a structure. An example of such a definition would be that given in USWRC—Vol. 1, p. 536 §10.0: “Anything constructed or erected, on the ground including, but without limitation to, buildings, factories, or sheds.” Since such a definition is more restrictive than the federal definition, no problem should be encountered from the NFIP if such a change is made.)

(26) *Subdivision*: (Put in the appropriate statutory definition.)

“(27) *Substantial improvement*: Any repair, reconstruction, improvement or alteration of a structure, the cost of which equals or exceeds 50% of the fair market value of the property or structure.

[“Substantial improvement” shall also mean any combination of repairs, improvements, reconstruction or alterations taking place within a period of _____ years any of which alone has a cost

(no.)

less than but which together have a cost equal to or exceeding 50% of the fair market value of the property or structure.]

Substantial improvement is considered to have occurred when the first alteration in any wall, ceiling, floor or other structural part of the building commences. The term does not include any repair, reconstruction, improvement, or alteration of a structure listed on the

National Register of Historic Places or a State Inventory of Historic Places.

(The bracketed words have been added to the definition in order to plug a loophole in the federal definition. Since there is no time limit set in the federal version, it would be possible for a person to subvert the intent of the ordinance by making a series of "unsubstantial improvements" which in a short period of time could conceivably double or triple the value of the structure. Also "market value" has been removed from this definition and redefined as "fair market value" earlier in this section.)

“(28) *Variance*: A grant of relief to a person from the requirements of this ordinance which permits construction in a manner otherwise prohibited by this ordinance where specific enforcement would result in unnecessary hardship.

SECTION THREE. GENERAL PROVISIONS

3.1 *Lands to which this Ordinance applies*

This ordinance shall apply to all lands within the jurisdiction of _____ that are depicted on the Official Zoning
(local unit)

Map as being a Floodway, Flood Fringe or Coastal High Hazard District.

(This provision was modeled after USWRC—Vol. 1, p. 522, 2.1. The three districts correspond to the districts depicted on the Insurance Rate Maps supplied by the federal government which show the flood plain, floodway and coastal high hazard districts. The flood fringe district is that part of the flood plain outside the floodway and coastal high hazard areas. A local community could utilize the federal information or could extend the area coverage beyond that covered by the federal maps.)

3.2 *Establishment of Official Zoning Map*

The Official Zoning Map for _____ together
(local unit)

with all explanatory matter thereon and attached thereto on the effective date of this ordinance is hereby adopted by reference and declared to be a part of this ordinance.

(This provision is modeled after USWRC—Vol. 1, p. 522, §2.2.)

3.3 *Interpretation of District Boundaries*

The boundaries of the Flood Plain District shall be determined by scientific and engineering studies and the results thereof shall be

plotted on the Official Zoning Map for _____ .
(local unit)

Boundaries for construction or use restrictions set forth within this ordinance shall be determined by scaling distances on the Official Zoning Map. Where interpretation is needed in order to allow a surveyor to locate the exact boundaries of the district as shown on the Official Zoning Map, the Flood Plain Administrator shall initially make the necessary interpretation based on flood profile information. The decision of the Flood Plain Administrator shall be subject to appeal to the Board of Adjustment in accordance with Section 4.7.

(This provision is modeled after USWRC—Vol. 1, p. 522, §2.3 but has been altered somewhat to conform to the remainder of this ordinance.)

3.4 *Compliance*

No structure or land shall hereafter be located, extended, converted or structurally altered without full compliance with the terms of this ordinance and other applicable regulations.

3.5 *Abrogation and Greater Restrictions*

This ordinance is not intended to repeal, abrogate or impair any existing easement, covenants, or deed restrictions. However, where this ordinance and another conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

3.6 *Interpretation*

In the interpretation and application of this ordinance, all provisions shall be: (1) considered as minimum requirements; (2) liberally construed in favor of the governing body; and (3) deemed neither to limit or repeal any other powers granted under the state statutes.

(This provision is modeled after USWRC—Vol. 1, p. 523, §2.4-2.6.)

3.7 *Warning and Disclaimer of Liability*

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance does not imply that areas outside of flood hazard districts or land uses permitted within such districts will be free from flooding or flood damages. This ordinance shall not create liability on the part of _____ or any officer
(local unit)

or employee thereof for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

(This provision is based upon Section 5 of Rule Number FPM-1 promulgated by the Indiana National Resources Commission which is somewhat similar to USWRC—Vol. 1, p. 523, 2.7.)

SECTION FOUR. ADMINISTRATION

4.1 *Flood Plain Administrator*

Pursuant to _____ the _____
(statute) (local governing body)

shall appoint a Flood Plain Administrator [who shall be a registered professional engineer of _____.] Said Adminis-
(state)

trator shall be appointed for _____ years to implement the
(no.)

elevation and flood proofing provisions of this ordinance, and to carry on such other duties as are assigned to him herein.

(This provision is modeled after USWRC—Vol. 1, p. 27, §6.1. The official's designation has been changed to "Flood Plain Administrator," since it has been noted by various sources during the development of the model ordinance, that this ordinance requires procedures distinct from those normally attributed to a local "zoning" ordinance. Rather than place responsibility for review of the applications on an already existing Building Inspector or County Engineer, as in the flood plain zoning ordinances found in Galveston, Texas, and Sierra Vista, Arizona, it was felt that designation of a specific official, the Flood Plain Administrator, would be more appropriate, since the Flood Plain Ordinance imposes rather technical and special conditions for building in the flood hazard area. Especially in Florida, there are large portions of land within this area, and the responsibility for the regulatory provisions of the Ordinance should be placed with an official who has both the expertise and time to give adequate consideration to the problems raised. For this reason, it has been further suggested that the Flood Plain Administrator be a qualified, registered engineer. If, however, it is felt that the ordinance could be adequately administered by someone other than an engineer, the bracketed words could be deleted.)

4.2 *Flood Plain Construction Authorization (FPCA) Permit*

(a) An FPCA Permit issued by the Flood Plain Administrator in conformity with the provisions of this ordinance shall be secured prior

to the erection, addition or alteration of any building or structure or portion thereof within the permitted area prior to the change of use of a building, structure, or land; and prior to the change or extension of a nonconforming use.

(b) Application for a FPCA Permit shall be made to the Flood Plain Administrator on forms furnished by him and shall include the following where applicable: plans in duplicate drawn to scale showing the nature, location, dimensions and elevations of the area in question in relation to mean sea level; existing or proposed structures, fill, storage of materials; and the location of the foregoing, where applicable, in relation to mean high tide levels, drainage facilities, the regulatory flood protection elevation, and any applicable flood hazard district boundaries.

(This provision is modeled after USWRC—Vol. 1, p. 527, §6.2.)

(c) Such application shall be acted upon and notice of the action taken shall be given to the applicant within _____
(no.)

days.

(d) Any appeal of the denial of an application for a FPCA Permit must be made to the Board of Adjustment within 30 days of notice of the denial to the applicant.

(e) Approval of an application shall result in the issuance of an FPCA Permit.

4.3 *Construction and Use to be as Provided in Application, Plans, and Permits*

FPCA permits or special exception permits issued on the basis of approved plans and applications authorize only the use, arrangement, and construction set forth in such approved plans and applications, and no other use, arrangement or construction. Any use, arrangement, or construction at variance with that authorized shall be deemed a violation of the ordinance, and enjoined or punishable as provided by Section 13.

(This provision is modeled after USWR—Vol. 1, p. 528, 6.24.)

4.4 *Building Permits*

Whenever a building permit shall be required under the provisions of this ordinance, such permit shall be procured in accordance with _____
(statutory authority) . In addition to factors and requirements

therein provided, the issuer shall also require, where applicable, presentation of a valid FPCA Permit prior to the issuance of the

building permit. The conditions, plans, etc., attached to the issuance of the FPCA Permit shall thereafter become part of the building permit.

(Procedurally, it is contemplated that the requirements for construction within the flood plain will be incorporated into those provisions previously established by the particular community for building within its jurisdiction. Obtaining the initial FPCA Permit does not eliminate the need to fulfill all other prerequisites for obtaining a building permit. However, when the building permit itself has been obtained, the FPCA Permit should become incorporated into it, so that compliance with its terms shall be subject to the continued supervision offered by the building permit procedures already in effect. Thus the certification of compliance generally required to be offered by an architect or engineer after completion of the structure will include, by reference, certification of compliance with the terms of the FPCA Permit. It is felt that in this way the most complete implementation of the goals of the Flood Plain Ordinance will be effected, without creating any undue burden of administration or leadership on either the applicant or the municipality.

Where an adopting community for any reason does not wish to designate separate flood plain administration procedures, implementation of the substantive provisions of this ordinance may be simplified by utilizing whatever type of local enforcement is already available.)

4.5 *Board of Adjustment*

A Board of Adjustment is hereby established which shall consist of _____ members to be appointed by the _____
(no.) (legislative body)
 for a term of _____ years as specified in Section _____
(no.)
 of the _____ statutes.

(This provision is modeled after USWRC—Vol. 1, p. 528, §6.3.)

4.6 *Powers and Duties of the Board*

(a) The Board of Adjustment shall adopt rules for the conduct of business and may exercise all of the powers conferred on such boards by state law.

(b) The Board shall hear and decide appeals from the denial of FPCA Permits.

(c) The Board shall hear and decide appeals when it is alleged there is error in any requirement, decision or determination made by an administrative official in the enforcement or administration of this ordinance.

(d) The Board shall hear and decide applications for Special Exceptions upon which it is authorized to pass under this ordinance.

(e) The Board may authorize, upon appeal from a decision of the Flood Plain Administrator, a variance from the requirements of this ordinance in cases which fall within the provisions of Section 10.

(f) The Board shall interpret the boundaries of the Flood Hazard Districts on appeal from a decision of the Flood Plain Administrator.

4.7. *Hearings and Decisions of the Board of Adjustment*

(a) Upon the filing with the Board of Adjustment of an appeal from a decision of the Flood Plain Administrator, an application for a Special Exception permit, or an application for a Variance, the Board shall hold a public hearing. The Board shall fix a reasonable time for the hearing and give public notice thereof as well as due notice to parties in interest. At the hearing any party may appear in person or by agent or attorney and present written and oral evidence for the record which he may have transcribed by a court reporter. The written transcript, if presented to the Board by the appellant, shall be part of the record.

(b) The Board shall arrive at a decision on an appeal, Special Exception, or Variance within 30 days after the hearing. In passing upon an appeal the Board may in conformity with the terms of this ordinance reverse or affirm, wholly or in part, or modify the order, requirement, decision or determination appealed from. The decision shall be in writing setting forth the findings of fact and rationale of the Board. In granting Special Exceptions or Variances, the Board may attach appropriate conditions and safeguards which promote the objectives of this Ordinance. Violation of such conditions and safeguards shall be deemed violations of this Ordinance punishable under Section 13.

(c) Appeals from any decision of the Board may be taken by any person or persons, jointly or separately, aggrieved by any decision of the Board, or any taxpayer, or any officer, department, board or bureau of the _____, to the _____

(local government unit)

(name of appropriate court)

as provided in _____ .

(statute)

(This provision is modeled after USWRC—Vol. 1, p. 529-30, §6.4. It includes a very broad standing provision which could be narrowed if desired. In addition the 30-day period could be expanded to 60 days if a community feels that the 30-day limit would result in haphazard decisions.)

4.8 *Special Exceptions*

(a) Applications for uses requiring Special Exception permits shall be submitted to the Flood Plain Administrator on forms furnished by him. Upon receipt of the properly completed application, the Administrator shall submit it to the Board. The application shall contain the following information and any additional information requested by the Board:

(1) A map in duplicate, drawn to scale, showing mean high water, mean low water and coastal construction setback lines where applicable, dimensions of the lot, existing structures and uses on the lot and adjacent lots, soil type, dunes and natural protective barriers, if applicable, existing flood control and erosion control works, existing drainage elevations and ground contours, location and elevation of existing streets, water supply, and sanitary facilities, and other pertinent information.

(2) A preliminary plan showing the approximate dimensions, elevation and nature of the proposed use; amount, area and type of proposed fill; area and nature of proposed grading or dredging; proposed alteration of dunes, beaches or other natural protective barriers if applicable; proposed roads, sewers, water and other utilities; specifications for building construction and materials including floodproofing.

(b) The Board shall transmit one copy of the information described in Section 4.8(a) to the _____ engineer for
(local unit)

technical assistance in evaluating the proposed project in relation to flood heights and velocities, threatened erosion or wave action, the adequacy of drainage facilities, and other technical matters.

(c) The Board shall determine the specific flood or erosion hazard at the site and shall evaluate the suitability of the proposed use in relation to the flood hazard, and, if a permit is to be issued, may attach appropriate conditions.

In passing upon such applications, the Board shall consider the technical evaluation of the engineer, all relevant factors and standards specified in other sections of this ordinance, and:

(1) The danger to life and property due to flooding or erosion damage.

(2) The danger that materials may be swept onto other lands to the injury of others.

(3) The proposed water supply and sanitation systems and the ability of these systems to prevent disease, contamination and unsanitary conditions.

(4) The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner.

(5) The importance of the services provided by the proposed facility to the community.

(6) The necessity to the facility of a waterfront location, where applicable.

(7) The availability of alternative locations, not subject to flooding or erosion damage, for the proposed use.

(8) The compatibility of the proposed use with existing development and development anticipated in the foreseeable future.

(9) The relationship of the proposed use to the comprehensive plan and flood plain management program for the area.

(10) The safety or access to the property in times of flood for ordinary and emergency vehicles.

(11) The expected heights, velocity, duration, rate of rise and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site.

(12) The costs of providing governmental services during and after flood conditions including maintenance and repair of public utilities such as sewer, gas, electrical and water systems, and streets and bridges.

(This provision is modeled after USWRC—Vol. 1, p. 531-32, §6.53. In some states including Florida, additional consideration must be made of the provisions of Beach and Shore Preservation Acts, *see e.g.*, FLA. STAT. Ch. 161, (1971) particularly FLA. STAT. §161.052 establishing coastal construction setback lines.)

(d) The Board shall hold a hearing on an application for a special exception to Section 4.7 of this Ordinance within 30 days from receiving the application.

(This provision is based on USWRC—Vol. 1, p. 532, §6.54, with the insertion of “30 days” as the requisite time limitation.)

(e) Upon consideration of the factors listed above and the purposes of this Ordinance, the Board may attach such conditions to the granting of Special Exceptions or Variances as it deems necessary to further the purposes of this Ordinance.

(This provision is generally based on USWRC—Vol. 1, p. 532, §6.55. However, enumeration of specific conditions which might be imposed by the Board was specifically omitted. Such enumeration is not necessary to further the clear intent of the ordinance, and might serve to limit the creative and imaginative use of property, which it is hoped this ordinance will encourage.)

SECTION FIVE. ESTABLISHMENT OF ZONING DISTRICTS

The areas within the jurisdiction of _____
(local unit)

having special flood hazards are hereby divided into three types of Flood Hazard Districts: Floodway Districts (FWD), Flood Fringe Districts (FFD), and Coastal High Hazard Districts (CHHD). The boundaries of these districts shall be designated on the Official Zoning Map.

(This provision is modeled after USWRC—Vol. 1, p. 524, §3.0.)

SECTION SIX. FLOODWAY DISTRICTS (FWD)

The provisions of this section shall apply to all areas designated as FWD's on the Official Zoning Map.

°6.2 *Requirements within a FWD*

(a) Within a designated FWD, all fill, encroachments, new construction or substantial improvement shall be prohibited, except as otherwise provided herein as a special or permitted use.

(This provision is modeled after 40 Fed. Reg. §1910.3(d)(6) and is designed to prevent future development in floodways to as great an extent as possible. Since floodways are required to carry the water in the event of a flood, they should be limited as far as possible to open space uses.)

°(b) The construction of any portion of a new mobile park, the expansion of an existing mobile home park or the location of any new mobile home not in a mobile home park is prohibited in any FWD.

(This provision is modeled after 40 Fed. Reg. §1910.3(d)(7). It is designed to prevent location of mobile homes in areas subject to high velocity waters, thereby preventing damage to the mobile home themselves and to other structures which could be damaged by floating mobile homes in the event of flooding.)

°(c) In the event that a mobile home location or relocation is not deemed to constitute the expansion of an existing mobile home park as used in Section 6.2(b) and as defined in Section 2(6), the location or relocation shall be allowed provided that:

(1) Any mobile home site rental or leasing agreement or any contract for and deed of sale clearly states that the land in question has been designated as part of a floodway district and may be subject to flooding;

(2) Any mobile home moved into or relocated within an existing mobile home park shall be anchored in such manner as to prevent flotation in the event of flooding;

(3) The owner, operator or manager of an existing mobile home park shall file with the _____, (appropriate disaster preparedness authorities),

[and post in a prominent location within the existing mobile home park] an evacuation plan indicating alternate vehicular access and escape routes; and

(4) Easy access for a mobile home hauler is provided.

(This provision is modeled after 40 Fed. Reg. §1919.3(c)(10) which is incorporated into the floodway provisions of the federal regulations by 40 Fed. Reg. §1910.3(d)(1). This provision is designed to notify mobile home buyers or renters of the potential danger of the location and to prevent mobile homes from becoming floating "battering rams" in situations where actually prohibiting their location within a Flood Plain would raise serious "taking" problems. The bracketed portion has been added here and in §8.63(b)(3), since it is felt that residents of an existing mobile home park within a CHHD, as well as the official authorities, should have easy access to emergency information.)

6.3 Permitted Uses

The following and other similar uses having a low flood damage potential and not obstructing flood flows shall be permitted within the FWD to the extent that they are not prohibited by any other ordinance, and provided they do not require structures, fill, dikes, dumping of materials or waste, or storage of materials or equipment. No use shall be permitted which acting alone or in combination with existing or reasonably foreseeable future uses, would result in a significant increase in the regulatory flood elevation.

(1) Agricultural uses, including general farming, pasture, grazing, outdoor plant nurseries, horticulture, viticulture, truck farming, forestry, sod farming, and wild crop harvesting.

(2) Non-structural industrial-commercial uses, including loading areas, parking areas, private airport landing strips.

(3) Private and public recreational uses, including golf courses, tennis courts, driving ranges, archery ranges, picnic grounds, boat launching ramps, swimming areas, parks, wildlife and nature preserves, game farms, fish hatcheries for native species, shooting preserves, target ranges, trap and skeet ranges, hunting and fishing areas, hiking and horseback riding trails.

(4) Residential uses such as: lawns, gardens, parking areas, and play areas.

(This provision is modeled after USWRC—Vol. 1, p. 524, §4.1, and

is designed to delineate the types of open space uses that are acceptable in floodway areas.)

6.4 *Special Exception Uses*

(a) The following uses may be permitted only upon application to the Flood Plain Administrator and the issuance of a special use permit by the Board as provided in Section 4.8 of this Ordinance, and provided that the use will not increase the regulatory flood level:

- (1) Uses accessory to permitted or special uses;
- (2) Circuses, carnivals and similar transient amusement or entertainment;
- (3) Drive-in theaters, parking areas, new and used car lots, and signs;
- (4) Extraction of sand, gravel and other materials;
- (5) Railroads, streets, bridges, utility transmission lines and pipelines;
- (6) Marinas, boat rentals, docks, piers, and wharves, exclusive of any structures connected with any of the abovementioned;
- (7) Private storage yards of non-floatable equipment, machinery or materials;
- (8) Other uses similar in nature.

(This provision is modeled after USWRC—Vol. 1, p. 524, §4.2.)

SECTION SEVEN. FLOOD FRINGE DISTRICTS (FFD)

7.1 *Applicability*

The provisions of this section shall apply to all areas designated as flood fringe districts on the Official Zoning Map.

*7.2 *Requirements within a FFD*

*(a) Building permits will be required for all proposed construction or substantial improvement within an FFD.

*(b) The _____ shall review all building per-

(local body)

mit applications to determine if the proposed construction is designed and anchored to prevent flotation, collapse or lateral movement of the structure.

*(c) New or replacement water supply and sanitary sewer systems located within FFD must be floodproofed as specified in Section 9.

(These provisions are based on 40 Fed. Reg. §§1910.3(c)(1), (2), (4).)

*(d) New construction or substantial improvement of any residential structure within the FFD shall have the lowest habitable floor,

including basement, elevated to [Optional: at least _____ feet above] the regulatory flood elevation;

*^(e) New construction or substantial improvement of any commercial-industrial or other non-residential structure shall either have the lowest floor including basement elevated to the level of [Optional: to a level at least _____ feet above] the regulatory flood elevation or together with attendant utility and sanitary facilities be flood-proofed to the level of [Optional: to a level of at least _____ feet above] the regulatory flood elevation. All floodproofing shall meet the requirements of Section 9.

(These provisions are based on 40 Fed. Reg. §§1910.3(c)(5), (6). The optional language would be adopted by communities desiring a higher level of protection than the minimum requirements of the NFIP, a course chosen in Vermont, Model Flood Hazard By-law; Agency of Environmental Conservation, 1975—One (1) foot above base flood elevation; Indiana, Model Zoning Ordinance for Flood Hazard Areas; Department of Natural Resources and State Planning Agency—Two (2) feet above base flood elevation; and the municipal flood plain zoning ordinance in Galveston, Texas—Five (5) feet above the 100-year flood elevation.

*7.3 *Mobile Home Restrictions*

*^(a) The construction of a new mobile home park, the expansion of an existing mobile home park, the location of a new mobile home not in a mobile home park or the substantial improvement of any of the above in a FFD shall be allowed only if the following criteria are met:

- (1) Ground anchors for tie downs are provided;
- (2) Mobile homes are anchored in such a manner as to prevent flotation in the event of flooding;
- (3) Lots or stands are elevated on compacted fill or by any other method approved by the _____ Engineer so that
(local unit)

the lowest habitable floor of the mobile home is at or above the regulatory flood level;

- (4) Adequate surface drainage and easy access for a mobile home hauler are provided.

(This provision implements 40 Fed. Reg. §1910.3(c)(9).)

*^(b) In the event that a mobile home location or relocation is not deemed to constitute the expansion of an existing mobile home park as used in Section 7.3(a) and as defined in Section 2(6), the location or relocation shall be allowed provided that:

- (1) Any mobile home site rental or leasing agreement or any

contract for and deed of sale shall clearly state that the land in question has been designated as part of a Flood Fringe District and may be subject to flooding;

(2) Any mobile home moved into or relocated within an existing mobile home park shall be anchored in such a manner as to prevent flotation in the event of flooding;

(3) The owner, operator or manager of an existing mobile home park shall file with the _____, (appropriate disaster preparedness authorities),

[and post in a prominent location within the existing mobile home park] an evacuation plan indicating alternate vehicular access and escape routes;

(4) Easy access for a mobile home hauler is provided.

(This provision implements 40 Fed. Reg. §1910.3(c)(10).)

SECTION EIGHT. COASTAL HIGH HAZARD DISTRICTS (CHHD)

8.1 *Applicability*

The provisions of this section shall apply to all areas designated as coastal high hazard districts on the Official Zoning Map.

8.2 *Requirements for Development in CHHD's*

°(a) Except as otherwise provided herein, all new construction and substantial improvements within a designated CHHD:

(1) Shall be located landward of the mean high water line [and of any coastal construction setback line where applicable];

(2) Shall be elevated on adequately anchored piles or columns so that the lowest floor is elevated at least to the regulatory flood elevation [Optional: elevated at least _____ feet above] the regulatory flood elevation and securely anchored to such piles or columns;

(3) Shall have the space below the lowest floor free of obstruction or constructed with breakaway walls intended to collapse under stress without jeopardizing the structural integrity of the building; and

(4) Shall be designed and constructed so as to minimize the impact and effect of abnormally high tides, wind-driven water or waves on the building.

(This provision implements 40 Fed. Reg. §1910.3(e) (2)-(4). The optional language in 8.2(a)(2) is intended to provide adopting communities with the option of requiring a higher degree of protection than that required by the NFIP. It was suggested by personnel from the Florida Department of Natural Resources that it

might be wise to require the lowest floor to be two feet above the regulatory flood elevation since "the structural members supporting the lowest floor will usually extend about 18" below that floor." It is understood that the final HUD regulations for the administration of the NFIP in recognition of this fact will require that the lowest supporting member rather than the lowest floor be elevated at least to the regulatory flood elevation. Such a change will also safeguard against the effects of wave action, which can only partially be taken into account by procedures for determination of the CHHD.)

(b) An application for a building permit in a CHHD shall be accompanied by a certificate signed by a [registered professional engineer, architect or other professional allowed by law to so certify] stating that the structure has been designed to meet the requirements of Section 8.2(a)(2), (3), (4).

(This provision, although not specifically required by the federal regulations, is based on 40 Fed. Reg. §1910.3(c)(7), and is intended to insure that any new construction in a CHHD is designed with the hazard in mind. It will also serve to somewhat alleviate the burden of local officials by making it easier for them to determine if the ordinance has been complied with. Within the brackets, an adopting community should put a list of those professionals allowed by state law to sign such a certificate.)

*(c) Fill shall not be used for structural support within a CHHD.

8.3 *Mobile Homes within a CHHD*

*(a) No new mobile home parks, expansion of existing mobile home parks or location of any new mobile home not in a mobile home park shall be allowed within a designated CHHD.

*(b) In the event that a mobile home location or relocation is not deemed to constitute the expansion of an existing mobile home park as used in Section 8.3(a) and as defined in Section 2(6), the location or relocation shall be allowed provided that:

(1) any mobile home site rental or leasing agreement or any contract for and deed of sale clearly state that the land in question has been designated as part of a Coastal High Hazard District and may be subject to flooding;

(2) any mobile home moved into or relocated within an existing mobile home park shall be anchored in such a manner as to prevent flotation in the event of flooding;

(3) the owner, operator or manager of an existing mobile home park shall file with the _____ [and
(appropriate disaster preparedness authorities)]

post in a prominent location in the existing mobile home park], an evacuation plan indicating alternate vehicular access and escape routes; and

(4) easy access for a mobile home hauler is provided.

(This provision implements 40 Fed. Reg. §1910.3(c)(10) which is required for CHHD's by 40 Fed. Reg. §1910.3(e)(1).)

8.4 *Guidance of Future Development*

The _____ shall wherever possible through
(legislative body of local unit)

zoning, other land use regulations or otherwise encourage open space uses in areas designated as CHHD's. Open space uses shall include but not be limited to those listed in Section 6.3.

(The basis for this provision is that CHHD's are areas which by their very nature are dangerous areas in which to live or build and are therefore much better suited to open space uses.)

SECTION NINE. FLOODPROOFING

9.1 *Minimum Floodproofing Requirements*

Wherever any of the provisions of this ordinance require that a building be floodproofed to specify that floodproofing may be used as an alternative to elevating a structure above the regulatory flood level, floodproofing shall be deemed to include all of the following:

(a) Wherever possible the location, construction and installation of all electrical and gas utility systems in such manner as to assure the continuing functioning of those systems in the event of a regulatory flood;

(b) The location, construction and installation of all potable water supply systems in such a manner as to prevent contamination from flood waters during the regulatory flood. No water supply well shall be located within the foundation walls of a building or structure used for human habitation, medical or educational services, food processing or public services;

(c) Approved backflow preventers or devices shall be installed on main water service lines, at water wells and at all building entry locations to protect the system from backflow or back siphonage of flood waters or other contaminants;

(d) Sanitary sewer and storm drainage systems that have openings below the regulatory flood elevation shall be equipped with automatic back water valves or other automatic backflow devices that are installed in each discharge line passing through a building exterior wall;

(e) Sanitary sewer systems, including septic tank systems, that are required to remain in operation during a flood shall be provided with a sealed holding tank and the necessary isolation and diversion piping, pumps, ejectors and appurtenances required to prevent sewage discharge during a flood. The holding tank shall be sized for storage of at least _____ days demand;

(f) All sewer system vents shall extend to an elevation of at least _____ feet above the regulatory flood elevation.

°(g) A registered professional engineer or architect shall certify that any new construction or substantial improvement has been designed to withstand the flood depths, pressure, velocities, impact and uplift forces associated with the regulatory flood at the location of the building.

(The provisions (a)-(f) above are based upon requirements stated in the U.S. Army Corps of Engineers publication entitled "Flood-Proofing Regulations" dated June 1972 [GPO: 19730-505-026]—see discussion of next provision. The last paragraph (g) implements 40 Fed. Reg. §1910.3(c)(7).

The Corps of Engineers requires the storage capacity of the holding tank (subparagraph (e)) to be "150% of anticipated demand during the duration of the flood." However, it has been noted that forecasting the duration of a flood may be an ambiguous and open-ended proposition. Therefore, it is felt that setting a specific time period may provide more certainty as to what is required in the way of storage capacity. A period of two days has been arbitrarily suggested as reasonable.)

°9.2 *Approval of Floodproofing*

Prior to construction, plans for any structure that is required to be floodproofed must be submitted to the _____
(local unit)

Engineer for approval. The _____ Engineer will
(local unit)

review the plans for compliance with the provisions of Section 9.1 (a)-(g), for general compliance with the techniques specified in the United States Army Corps of Engineers publication entitled "Flood-proofing Regulations," June 1972, [GPO: 19730-505-026] and for compliance with any other applicable building codes or regulations. The _____ Engineer shall approve, reject or
(local unit)

recommend modifications of the plans within 30 days from their receipt.

(This provision modifies 40 Fed. Reg. §1910.3(c)(7) which

requires that floodproofing be accomplished in accordance with the Corps publication. However, it was felt that to set a rigid standard would inhibit possible technological innovation which might prove cheaper and better but not comply with the Corps standards and therefore be rejected.)

SECTION TEN. VARIANCES

10.1 *Requirements for Variance*

Upon the submission of a written application to the Board a variance may be granted permitting the erection of structures with a lowest floor elevation, including basement, lower than the regulatory flood elevation but at least 2 feet above the elevation of the adjoining street if all of the following are met:

°(a)(1) The property on which the structure is to be erected is an isolated lot of one-half acre or less, contiguous to and surrounded by existing structures constructed below such required first floor elevation or

(2) a structure listed on the National Register of Historic Places or a State Inventory of Historic Places is to be restored or reconstructed; and

°(b) Good and sufficient cause exists for the granting of the variance;

°(c) Failure to grant the variance would result in exceptional hardship to the applicant; and

°(d) The issuance of the variance would not result in increased flood heights, additional threats to public safety or extraordinary public expense; and

°(e) The variance would not have the effect of nullifying the intent and purpose of the ordinance.

(These provisions implement 40 Fed. Reg. §§1910.6(a)(1)-(2). It is also possible for a community-wide variance for basements to be granted under 40 Fed. Reg. §1910.6(b)(2), and it is even possible under 40 Fed. Reg. §1910.6(b)(1) to get a variance from the 100-year flood requirement. However, discussions with FIA officials have indicated that it is extremely unlikely that a variance would be granted under that provision.)

10.2 *Procedure for Variances*

°[(a) Variances granted shall become effective only after a description of the variance and its effect on flood insurance eligibility and premiums has been recorded with the Clerk of the Circuit

Court of _____ County prior to the issuance of the building permit.]

(This provision implements 40 Fed. Reg. §1910.6(a)(3)(i). It should be excluded if the community is not entering the NFIP.)

(b)(1) All applications for variances shall be heard by the Board after reference to such committees and administrative officials as may be established for purposes of investigation and recommendation.

(2) Prior to the granting of a variance the Board must find that justification exists in accordance with the terms of this ordinance. These findings, together with the grant of a variance, shall be reduced to writing and made a part of municipal records. Any variance shall pertain to the particular parcel of land and apply only to the proposed structure set forth in the variance application.

(3) Such variance shall be freely transferable with the land and shall not be personal to the applicant.

(4) Unless otherwise provided therein, a variance shall be valid for a period of one year after the date of its issuance. If construction has not commenced pursuant thereto within such time, said variance shall become void. Lapse of a variance by the passage of time shall not preclude subsequent application for variance.

(5) No variance except as herein specifically permitted may be granted from the provisions of this ordinance. The variance procedures herein provided shall be the exclusive method for obtaining variances under the provisions herein.

(c) Each written application for a variance shall be accompanied by a fee of _____. Such application shall reflect the type of structure or structures for which a variance is sought, the size of such structures, the approximate location upon the parcel and the intended use thereof.

°(d) Any applicant to whom a variance is granted shall be given notice that the proposed structure will be located in a flood-prone area, that the structure will be built with a lowest floor elevation _____ feet below the regulatory flood elevation; [and that the cost of the flood insurance will be commensurate with the increased risk resulting from the reduced first floor elevation.]

(This provision implements 40 Fed. Reg. §1910.6(a)(3). The bracketed material should be deleted if an adopting community is not entering the NFIP.)

SECTION ELEVEN. NONCONFORMING USES

A structure or the use of a structure or premises which was lawful before the passage or amendment of this ordinance but which is not in

conformity with its provisions may be continued as a nonconforming use subject to the following conditions:

(a) No such use shall be expanded, changed, enlarged or altered in any way which increases its unconformity.

(b) Any substantial improvement of a nonconforming structure shall be made in compliance with the provisions of this ordinance.

(c) If such use is discontinued for _____ consecutive months, any future use of the building premises shall conform to this ordinance.

(d) If any nonconforming use or structure is destroyed by any means, including flood, to an extent of 50% or more of its market value immediately prior to the destruction, it shall not be reconstructed except in conformity with the provisions of this ordinance.

(e) Any use which has been permitted as a Special Exception use and is in full compliance with this act and attached conditions shall be considered a conforming use.

(This provision is modeled after USWRC—Vol. 1, p. 533, §7.0. It is administrative in nature and should be adapted to the specific needs and administrative procedures of the community. It has been suggested that the final HUD regulations may raise the 50% destruction criterion in (d) above to a higher figure in certain hardship cases. The final regulations should be checked and consideration given to a possible change in this figure in the ordinance if this change is incorporated in the final regulations. Taking the opposite viewpoint, one party commenting on the initial draft of this model suggested that the amortization concept be utilized to eventually eliminate nonconforming uses from flood plains.)

SECTION TWELVE. SUBDIVISION REGULATIONS IN FLOOD HAZARD AREAS

(The provisions within this section are not intended to represent a complete "subdivision ordinance" but only to supplement an existing ordinance in order to adequately take account of flood hazard areas. These provisions should be incorporated into existing regulations and procedures presently applicable to the platting of subdivisions. These provisions may also be made applicable to planned unit developments or other similar types of development. If this section is to be adopted along with the other portions of this ordinance, an additional subsection should be added indicating that the existing subdivision ordinance is being amended. Subdivision proposal review is required by 40 Fed. Reg. §1910.3(c)(3). These provisions are for the most part new and were formulated during development of the ordinance.)

12.1 *Applicability*

The provisions of this section shall apply to all subdivisions platted after the effective date of this ordinance which encompass any land which is designated as having special flood hazards and is shown on the Official Zoning Map as either a CHHD, FWD or FFD.

12.2 *Subdivisions within a FWD*

If any portion of a proposed subdivision lies within a FWD, the portion of land so located shall be developed in accordance with the provisions of Section 6 of this ordinance.

12.3 *Subdivision within a FFD or CHHD*

(a) If any portion of a proposed subdivision lies within a FFD or CHHD, the portion of land so located shall be developed in accordance with either the provisions of Sections 7 or 8 of this ordinance, whichever is applicable.

(These two types of districts were separated from the FWD because development is allowed in both, the only restrictions being in the nature of elevation requirements.)

(b) The Flood Plain Administrator shall require the developer of a residential subdivision to dedicate areas within a FFD or CHHD to open space uses such as those specified in Section 6.3 of this ordinance whenever possible within the provisions of this section. In return for such dedication, the residential subdivisions shall be given density credits equal in value to the density of the residential development that would have occurred in the FFD or CHHD area had it not been dedicated to open space use. These density credits shall be transferable only to portions of the same proposed residential subdivision which lie outside flood hazard districts, thereby maintaining the same total density within the subdivision as if the FFD or CHHD had been developed.

The provisions of this section shall operate only if the Zoning Administrator finds:

(1) that the construction of the proposed residential subdivision without density credit transfer will have adverse effects on existing structures and uses in the event that flooding occurs; and

(2) that the density credit transfer will not increase the density of residential development on the land to which the transfer occurs by more than ([25%] [1.25 times the density of residential development permissible prior to the transfer.]) If this subsection can be satisfied by density credit transfer from only a portion of the land lying within a CHHD or FFD, then this section shall apply to only said section.

(The concept is that flood plains should not be developed if possible, but "taking" problems may exist if development is prohibited, especially since the development is allowed under the NFIP. Therefore, whenever possible, a community should "purchase" the development rights to flood plains from the subdivider by allowing him to build to the same total density of units as if all his land were available, but to confine actual construction only to areas outside the flood plain. The (1.25) figure was suggested by a local government official as a means of assuring that a density transfer would not result in destruction of the overall integrity of an area, e.g., it would prevent a subdivider who obtained a large amount of flood plains land from transferring the density credits thereby accrued to a small parcel, resulting in an authorization for the construction of a highrise in an area of single family residences. A higher figure may be utilized in less populated areas.

The last sentence of the provision applies to the situation where, because a large portion of the planned subdivision is within the FFD or CHHD, the transfer of density credits as otherwise provided would result in an increase of the density of the land not within the FFD or CHHD by a factor greater than (1.25) (25%). If such a result would occur by strict application of the density credit transfer to the entire parcel, then credits will be awarded only for that portion of the land within the FFD or CHHD which will result in an increase in density of the adjacent land of (1.25 times) (25%) or less. No further density credits will be allowed, even if additional portions of the parcel are within the FFD or CHHD and would otherwise entitle the developer to density credits. A similar concept has been incorporated in Ordinance No. 0-1-74, Palatine, Illinois.)

12.4 *Regulation of Subdivisions already under Construction*

If a subdivision plat has been approved, building permits obtained and construction of the subdivision has already started, as defined in Section 2(21) the following provisions shall apply to any remaining construction within a FWD, FFD, or CHHD.

(a) All utility systems installed shall be floodproofed in accordance with the provisions of Section 9 of this ordinance.

(b) All contracts for and deeds of sale entered into or executed after the effective date of this ordinance shall specify that the land in question is located within a flood hazard district and may be subject to flooding.

(Due to the federal definition of "start of construction," these provisions would not be allowed in an ordinance adopted to comply with the federal regulations. Since each new unit constitutes a new

“start of construction,” the ordinance would be applicable to those homes “started” after its passage and not to those “started” before. There is no “start of construction” for a subdivision. However, if a court challenge proves successful—see those cases cited in Section 2(22)(d) for the doctrine of equitable estoppel—this provision can be inserted into the ordinance to plug the gap.)

12.5 Plat Approval

(a) In addition to any other requirements imposed on subdivision plats, all preliminary or final plats submitted for approval to the _____ shall clearly delineate:

(platting authority)

(1) All areas that are designated as being either FWD, FFD or CHHD zones on the Official Zoning Map;

(2) The regulatory flood elevation at all affected areas on the plat;

(3) The finished elevation for all streets and lots platted;

(4) All areas for which soil absorption sewage disposal systems will not properly function due to high ground water elevation or frequent flooding;

(5) All existing or proposed drainage facilities.

(The idea for these provisions was taken from the Draft Subdivision Ordinance, USWRC—Vol. 2, p. 57-73.)

(b) The _____ shall examine all plats for

(platting authority)

compliance with the above regulations and all other pertinent regulations and may either approve or reject the plat or approve the plat with modifications.

SECTION THIRTEEN. PENALTIES FOR VIOLATION

Violation of the provisions of this Ordinance or failure to comply with any of its requirements, including violation of conditions and safeguards established in connection with grants of Variances or Special Exceptions, shall constitute a misdemeanor. Any person who violates this Ordinance or fails to comply with any of its requirements shall upon conviction thereof be fined not more than \$ _____ or imprisoned for not more than _____ days, or both, and in addition shall pay all costs and expenses involved in the case. Each day such violation continues shall be considered a separate offense.

Nothing herein contained shall prevent the _____

(local unit)

from taking such other lawful action as is necessary to prevent or remedy any violation.

SECTION FOURTEEN. SEVERABILITY

If any section, clause, provision or portion of this ordinance is adjudged unconstitutional or invalid by a court of competent jurisdiction, the remainder of this ordinance shall remain in effect.

(These provisions are modeled after USWRC—Vol. 1, p. 534, 523, §8.0, §2.8.)