

### **Above the Flood: Elevating Your Floodprone House**

This publication shows how floodprone houses in south Florida were elevated above the 100-year flood level following Hurricane Andrew. Alternative elevation techniques are also demonstrated.

### **Answers to Questions About the National Flood Insurance Program**

This booklet is intended to acquaint the public with the National Flood Insurance Program (NFIP). Despite the highly technical nature of the Program, there has been a deliberate effort to minimize the use of technical terms. This publication is designed for readers who do not need a detailed history or refined technical or legal explanations, but do need a basic understanding of the program and the answers to some frequently asked questions. Readers who need legal definitions should refer to the Standard Flood Insurance Policy and to NFIP and related regulations.

### **Elevated Residential Structures**

Flooding in residential areas is bound to happen in flood-prone areas resulting in property damage. This manual is for designers, developers, builders, and others who wish to build elevated residential structures in flood-prone areas.

### **Protecting Manufactured Homes from Floods and Other Hazards**

This document reflects the requirements of the most current codes and standards and to provide a best practices approach in reducing damages from natural hazards. This document concentrates on flood and wind events, while also addressing seismic hazards and recommends several multi-hazard resistant foundation designs. Designs are included for wood-framed foundations, conventional concrete and masonry pier foundations, and ground anchors. The ground anchor foundations are based on results from a series of first-of-its-kind saturated and dry soil anchor tests.

### **Protecting Building Utilities From Flood Damage**

The overall objective of this document is to assist in the construction of buildings with building utility systems that are designed and built so that the buildings can be re-occupied and fully operational as soon as electricity and sewer and water are restored to the neighborhood.

### **Protecting Floodplain Resources**

This guidebook has been written to introduce officials and citizens at the local level to a basic understanding of natural resources in floodplains and to offer suggestions for creating strategies for wisely managing these important areas. As scientific understanding of ecosystems grows, the importance of conserving and restoring the natural resources and functions of floodplains is increasingly recognized. Historically effective floodplain management was recognized as a necessary task to reduce the loss of life and property. However, floodplain areas are now also recognized as having an intrinsic value of their own as a part of the interconnected ecosystem and an influential role in increasing a community's quality of life.

### **Reducing Damage from Localized Flooding**

This guide is intended to help local offices in cities, towns, villages, and counties in the United States understand what they can do to reduce the damage, disruption, and public and private

costs that result from the shallow, localized flooding that occurs within their jurisdictions. This is flooding that all too often escapes the attention received by larger floods or those that are clearly mapped and subject to floodplain development regulations.

### **Engineering Principles and Practices of Retrofitting Floodprone Residential Structures**

This document is intended to aid homeowners in selecting and successfully executing a flood retrofit on their home. Engineering design and economic guidance on what constitutes feasible and cost-effective retrofitting measures for flood-prone residential and non-residential structures are presented. Elevation, relocation, dry floodproofing, wet floodproofing, and the use of levees and floodwalls to mitigate flood hazards are discussed.

### **Flood Damage-Resistant Materials Requirements**

Provides guidance on the NFIP regulations concerning the required use of flood-damage resistant construction materials for building components located below the Base Flood Elevation in Special Flood Hazard Areas (both A and V zones).

### **Homeowner's Guide to Retrofitting: Six Ways to Protect Your House from Flooding**

FEMA has prepared this guide specifically for homeowners who want to know how to protect their homes from flooding. As a homeowner, you need clear information about the options available to you and straightforward guidance that will help you make decisions. This guide gives you both, in a form designed for readers who have little or no experience with flood protection methods or building construction techniques.