



Oregon

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Littoral Cell Management Planning

Introduction

During the late 1970's and early 1980's Oregon established policies aimed at reducing risks to new and existing development from chronic coastal natural hazards. Recently, several reports have evaluated the effectiveness of these policies in light of increased pressure for development as well as advances in scientific understanding. These reports include the 1992 Assessment of Coastal and Ocean Resources Planning Issues and Management Capability and the 1994 Recommendations of the Coastal Natural Hazards Policy Working Group, among others.^{5,8,16,17} They concluded that existing policies and procedures need to be improved. One action recommended to improve Oregon's system of oceanfront development and shore protection decision-making is for chronic hazard alleviation needs to be assessed and addressed at the scale of individual littoral cells or subcells.

A move towards area-wide hazards management is appealing for a variety of reasons:

- Hazard assessment is more consistent in quality when it is carried out on an area-wide scale;
- Hazard alleviation is more effective and less expensive when it is addressed at the same scale which factors affecting shoreline stability are operative;
- The potential for adverse impacts and cumulative effects are minimized because there is an increased likelihood that these considerations will enter into the decision-making process; and
- Decision-making is more timely and predictable because interagency and intergovernmental coordination is enhanced.

Thus, littoral cell management planning has the potential to improve the public and private sectors ability to locate new development away from hazardous areas and to minimize threats to existing development, while at the same time improving both resource protection and economic opportunities.

While the concept of a littoral cell management plan is appealing, the specifics of such a plan have never been described. With this in mind, this document outlines a framework for littoral cell management planning along the Oregon coast. This is accomplished by providing answers to the following questions:

- **What is a littoral cell management plan?;**
- **What does littoral cell management planning involve?;** and
- **Who develops and implements a littoral cell management plan?.**

The framework for littoral cell management planning outlined in this document is designed to serve as a guide to city and county planners, state and federal regulators and resource managers, coastal scientists, property owners, business leaders, community activists, and others who might be interested in developing and implementing such a plan. The framework is intended to be flexible enough to accommodate the broad range of community needs and capabilities found along the Oregon coast.

Recommendations contained herein are based on a review of literature encompassing the topics of special area management planning and coastal natural hazards alleviation. They also result from discussions with city and county planners, state and federal agency representatives, engineers, geologists, geographers, oceanographers, vegetation specialists, and oceanfront property owners. These discussions took place at meetings held at five different locations - Corvallis, Portland, Cannon Beach, Newport, and Bandon- during the month of September 1995. Views expressed during these discussions are summarized in an appendix to this document. Also, please note that side bars are used liberally throughout this document to provide additional background and further details.

What is a littoral cell management plan?

A littoral cell management plan is a comprehensive, integrated, area-wide hazards management strategy unique to different physical and social settings found along the Oregon coast. It is focused on the reduction of risk to new and existing oceanfront development from chronic coastal natural hazards. A littoral cell management plan should include: littoral cell inventories; a chronic hazards management strategy; and implementing mechanisms.

- The **Littoral Cell Inventory** is a collection of information describing physical, biological, and cultural characteristics within a given littoral cell or subcell. This inventory information, which can be in map, database, and text formats, forms the basis for decision-making.

- The **Chronic Hazards Management Strategy** is a description of preferred management measures and the policies and procedures needed to implement them. Two parts of an overall chronic hazards management strategy can be identified:
 - The **hazard avoidance strategy**, which focuses on policies and procedures pertaining to the siting and design of new development; and

 - The **beach and shore protection strategy**, which focuses on policies and procedures pertaining to hazard alleviation for existing development.

Together, these two strategies form the substance of a littoral cell management plan.

• **Implementing Mechanisms** include local ordinances, coordination agreements, memoranda of understanding, or other similar types of documents which adopt policies and procedures prescribed in the management strategy. These materials, together with monitoring and maintenance programs, are needed to ensure the success of a littoral cell management plan.

These basic elements of a littoral cell management plan are further detailed in subsequent sections of this document.

