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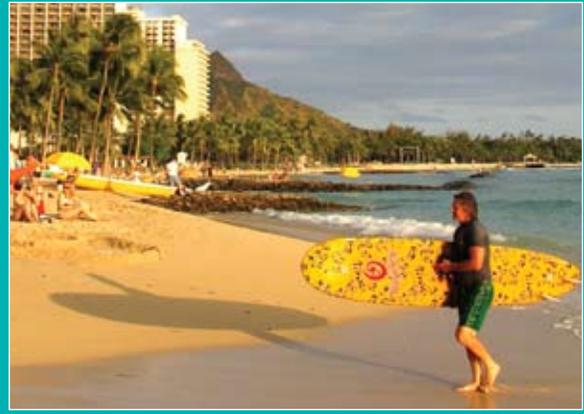
Smart Growth for Coastal and Waterfront Communities

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The natural beauty of the water draws people and development to its shores.

Coastal and waterfront communities have a distinctive sense of place created by their history, as well as by their characteristic sights, sounds, and smells. On the coast, the bellow of tugboats and the salty taste of ocean air; along lakes and rivers, the sound of the water and the feel of brisk waterborne winds—all come together to shape our sense of these special places.

The water, beaches, cliffs, rocky shores, and other natural features attract people and spur development. But many coastal and waterfront communities have found that conventional development patterns threaten the assets they treasure most. Smart growth approaches—guided by a set of principles that help communities grow in ways that expand economic opportunity, protect public health and the environment, and enhance places that people care about—can help these communities accommodate development while protecting their traditional sense of place. Some of these approaches also can help communities be more resilient to hazards created by weather and climate, such as drought, sea level rise, and coastal and inland flooding.

Living near the water has historically been, and is expected to remain, desirable. Lake and riverfront properties are typically in demand. Coastal counties, which cover less than 17 percent of the land area in the United States,¹ are home to about 52 percent of the population and are expected to continue to grow.² The ways in which cities, towns, and neighborhoods along the water handle the development pressures they face will affect their environment, economy, and quality of life for decades to come.

How can smart growth strategies help coastal and waterfront communities manage growth and development while balancing environmental, economic, and quality of life issues? How can communities on the water adapt smart growth strategies to fit their unique character? This publication will help communities answer these questions. It is specifically targeted to anyone who plans, designs, builds, approves, or has an interest in development at the water's edge.

Smart growth is defined by 10 principles. These principles provide a framework for making growth and development decisions that yield better economic, environmental, community, and public health results. Developed in 1996 by the Smart Growth Network, a coalition of national and regional organizations that believe where and how we grow matters, the principles are based on the characteristics and experiences of thriving, diverse, and successful communities. These principles help guide growth and development in communities that have a clear vision for their future and understand the values they want to sustain.

The coastal and waterfront elements presented in this document augment the existing smart growth principles to reflect the specific challenges and opportunities characterizing the waterfront, be it on a coast, a river, or a lake. These elements provide guidance for communities to grow in ways that are compatible with their natural assets, creating great places for residents, visitors, and businesses (see table on page 4).

This guide begins with an overview of some of the challenges and opportunities that communities along the water face. Ten sections follow, one for each of the smart growth coastal and waterfront elements. Each section begins with a description of what smart growth looks like and how it may be applied differently along the water—and then offers examples, tools, and techniques for implementing smart growth approaches. The guide includes regulatory approaches as well as voluntary, incentive-based tools.

Although this document is organized by individual elements, the tools and techniques proposed in each element should be used together to support a comprehensive approach to achieve multiple community goals. The guide closes with a glossary of terms and notes. Additional tools and examples are provided at <http://coastalsmartgrowth.noaa.gov>.

SMART GROWTH PRINCIPLES	SMART GROWTH COASTAL AND WATERFRONT ELEMENTS
1. Mix land uses	1. Mix land uses, including water-dependent uses
2. Take advantage of compact building design	2. Take advantage of compact community design that enhances, preserves, and provides access to waterfront resources
3. Create a range of housing opportunities and choices	3. Provide a range of housing opportunities and choices to meet the needs of both seasonal and permanent residents
4. Create walkable communities	4. Create walkable communities with physical and visual access to and along the waterfront for public use
5. Foster distinctive, attractive communities with a strong sense of place	5. Foster distinctive, attractive communities with a strong sense of place that capitalizes on the waterfront's heritage
6. Preserve open space, farmland, natural beauty, and critical environmental areas	6. Preserve open space, farmland, natural beauty, and the critical environmental areas that characterize and support coastal and waterfront communities
7. Strengthen and direct development toward existing communities	7. Strengthen and direct development toward existing communities and encourage waterfront revitalization
8. Provide a variety of transportation options	8. Provide a variety of land- and water-based transportation options
9. Make development decisions predictable, fair, and cost effective	9. Make development decisions predictable, fair, and cost effective through consistent policies and coordinated permitting processes
10. Encourage community and stakeholder collaboration in development decisions	10. Encourage community and stakeholder collaboration in development decisions, ensuring that public interests in and rights of access to the waterfront and coastal waters are upheld



Coastal and Waterfront Challenges and Opportunities

Bounded by water, coastal and waterfront communities are challenged to make the best use of limited land while protecting critical natural resources from the potentially damaging effects of growth. These communities must consider a common set of overarching issues when managing growth and development.

Resilience to Natural Hazards and Climate Change

Coastal and waterfront communities must be ready to respond to and rebound from hazards created by weather and climate. The uncertainty about exactly how the climate will change should not stop communities from acting to protect property and lives. Although much of the attention on climate change focuses on sea-level rise and coastal storm intensity, other potential effects may also affect inland river and lakefront communities, such as changing water levels and more extreme precipitation patterns that could lead to increased flooding and drought.³

Planning with smart growth principles can help communities make efficient investments in buildings and other infrastructure, protect and restore critical environmental areas, and protect public health. In applying these principles to any development project, communities need to explicitly consider natural hazards, including the potential impact of climate change. Resilience to natural hazards, such as storms and storm surges, sea-level rise, and shoreline erosion, is inextricably linked to the siting and design of development, as well as to the built and green infrastructure that supports it.⁴



Coastal and waterfront communities face unique challenges, including how to protect development from shoreline erosion, how to successfully manage cumulative impacts from development, and how to best balance competing uses of the water and the waterfront.

Well-planned and well-maintained natural systems can help protect communities in many ways. For example, natural floodplains can act as protective buffers that absorb floodwater, reducing the speed and amount of flooding, controlling erosion, protecting drinking water supplies and water quality, and insulating buildings and roads from damage.

Vulnerability to the Combined Effects of Development

The natural environment that draws residents and visitors and defines the economy and character of these communities is vulnerable to both site-specific development impacts and the cumulative and secondary effects of development decisions. For example, the erection of a new dock or pier may have a small natural resource impact on a large estuary, but if adjacent channels are deepened to access the new pier, demand for more docks in nearby areas may increase and cause more extensive natural resource impacts (a cumulative impact). Boat and shipping traffic may also rise over time, causing congestion and additional pollution (a secondary effect). Residential development and road building in upland portions of coastal watersheds can also cause cumulative and secondary coastal impacts, such as reduced freshwater inflow to coastal areas, degraded estuarine water quality, and increased air pollution from increased traffic. The impacts of any single development project may be minor, but when combined with all other development impacts to a watershed over time, they can threaten fragile coastal and waterfront resources and the quality of life. Policies governing growth and development along the water must be sensitive to these unique vulnerabilities and protect the community's valuable natural assets.

Competing Uses

A growing population creates a greater demand for land for housing, placing pressure on coastal and

waterfront industries, recreation, and public access to the water. Non-water-dependent uses, such as residential waterfront development, can compete with water-dependent uses like commercial and recreational fishing and port commerce. Waterfront and coastal communities must find ways to balance these uses along the water's edge.

Public Trust Doctrine

Communities must consider the public's right of access to the water when making development decisions. The public trust doctrine establishes that all navigable and historically navigable waters, including the lands beneath and resources within, are held in trust by the state for the public's benefit and use. The doctrine protects a range of uses, including commerce, navigation, and fishing. This doctrine is a key factor affecting coastal and waterfront development and must be considered in all land use decisions involving the waterfront.

State and Federal Framework

This guide focuses on local solutions, but those solutions must be crafted in accordance with the state and federal regulations governing development along the water. Regulatory issues along the water are complex, with laws and regulations beyond the environmental, land use, and transportation rules for inland development. The Coastal Zone Management Act, the Clean Water Act, the Rivers and Harbors Act, and other laws give broad planning and regulatory authority to federal and state agencies. In addition, a variety of federal agencies have regulatory authority over floodplain management, wetland protection, and disaster recovery. Given this complicated web of regulations, coastal and waterfront communities must coordinate with many agencies and make development decisions in a process that is clear and predictable.

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