

## Take a Stand on the Waterfront

Where do we start in the battle against climate change? A logical place is the urban waterfront. It's in coastal areas, after all, where the largest population centers are concentrated and where temperatures are rising most rapidly. Those factors, combined with rising sea levels, place coastal cities all over the globe at a high risk of severe floods and storms.

The results are already obvious: loss of wetlands, shoreline erosion, lowland flooding, and increasing property damage. Saltwater is moving deeper into freshwater rivers and lakes, endangering drinking supplies. Higher temperatures are changing coastal ecologies (with related health risks), causing evaporation and producing heat island effects. More intense storms are further affecting our freshwater supplies, damaging coastal infrastructure, and putting a damper on local economies.

New York City is a good example of these impacts—and a pioneer in assessing them. According to a recent expert report, local sea levels will rise seven to 12 inches in the next four decades. Temperatures will be three to five degrees higher. There is likely to be a 100-year flood every 35 to 55 years, with flood height of over nine feet.

The city's 500-plus miles of coastline are lined with numerous residential communities as well as vital container ports, docks, airports, wastewater treatment facilities, and power plants. Below the surface lie miles of subways, along with communication systems and essential utilities—all in danger of inundation. The price will be high if we don't start by dealing with waterfronts like those in New York, and the problems are sure to move deeper inland.

**Here's the good news.** Waterfronts present an opportunity for cities to reinvigorate large, strategically positioned urban areas in sustainable ways. Waterfront planners and urban designers can make a significant difference by promoting appropriate density, mixed uses, and transit-oriented development.

Zoning changes can guide growth to take storm risks into account. Planners can collaborate with engineers to build stormwater management systems that protect the quality of our water bodies. Water edges can be redesigned to protect coastal ecologies and to buffer storm surges.

Some issues are more challenging. One is sharing—"cross-boundary cooperation," to use a United Nations phrase. People need to share expertise across different scientific disciplines, collaborate with multiple agencies and jurisdictions, and make intergovernmental commitments across the planet. And that, I believe, is where planners' leadership is particularly valuable. We are trained to understand long-term consequences, to manage effective planning processes, and to consider the costs and benefits of every project and program. We're also skilled in synthesizing different scales—from neighborhood to national and international.

Vulnerable coastal communities have a particular need for planners who can craft site-specific strategies. Responding to the challenges of climate change can become a new source of cohesion and pride for communities whose identity is built on a historic connection to the water. Planners can also bring together government agencies that share a common dependence on a lake or a river but whose political relationships may be out of sync. The need to respond to climate change along waterfronts could well be the starting point for mutual benefits and wider cooperation.



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Right: Battery Park City on the Hudson River in New York City.

Photo above: Aaron Elson  
Right: Bonnie Harken

