REFORMING STATE-LEVEL COASTAL MANAGEMENT AND DEVELOPMENT POLICIES: STRATEGIC RETREAT AS AN INNOVATIVE, PROACTIVE AND EQUITABLE COASTAL ENVIRONMENTAL MANAGEMENT STRATEGY

Andrew S. Coburn,* John Whitehead

Introduction

Atlantic and Gulf Coast shorelines include some of the most unique and biologically rich ecosystems in the United States that provide immeasurable aesthetic, habitat and economic benefits. Natural coastal ecosystems, however, are under increasing threat from rampant and irresponsible growth and development. Once a boon to local economies, complex natural forces – enhanced by global climate change and sea level rise - are now considered hazards and eroding the very foundation upon which coastal development is based.

For nearly a century, beach restoration and erosion control structures have been used to artificially stabilize shorelines in an effort to protect structures and infrastructure. Beach restoration, the import and emplacement of sand on an eroding beach, is expensive, unpredictable, inefficient and may result in long-term environmental impacts. The detrimental environmental impacts of erosion control structures such as sea walls, groins, bulkheads and revetments include sediment deficits, accelerated erosion and beach loss.

These and other traditional responses to coastal erosion and storm impacts- along with archaic federal and state policies, subsidies and development incentives - are costly, encourage risky development, artificially increase property values of high-risk or environmentally sensitive properties, reduce the post-storm resilience of shorelines, damage coastal ecosystems and are becoming increasingly unsustainable.

Although communities, coastal managers and property owners face increasingly complex and difficult challenges, there is an emerging public, social and political awareness that, without meaningful policy reforms, coastal ecosystems and economies are in jeopardy.

Strategic retreat is a sustainable, interdisciplinary management strategy that supports the proactive, planned removal of vulnerable coastal development; reduces risk; increases shoreline resiliency and ensures long term protection of coastal systems. Public policies and management strategies that can overcome common economic misperceptions and promote the removal of vulnerable development will provide state and local policy makers and coastal managers with an effective management tool that concomitantly addresses the economic, environmental, legal and political issues along developed shorelines.

The Problem of Coastal Development

Coastal development - the emplacement of static structures and infrastructure along dynamic shorelines - represents a unique concordance of natural, social, economic, political and social factors, each essential to understanding the extent of risks coastal development faces, as well as the difficulty of reducing or eliminating those risks.

Continued increases in coastal development and population density means that already developed coastlines will suffer ever-greater threats to human life, property and the environment unless innovative management policies that reduce unsafe development in hazardous and sensitive coastal areas are developed, adopted and implemented.

The Counterproductive Role of Government

Government actions within the dynamic coastal landscape have and will continue to have unintended consequences that increase the risks of coastal development, as well as the difficulty in minimizing or eliminating either the risks or the development.

Many federal, state and local policies subsidize the costs of coastal development and property ownership, and government entities continue to expend tens of millions of dollars annually to repair repeated and foreseeable damage to unwise and unsustainable private development and public infrastructure.



Instead of limiting hazardous coastal development, government policies and practices not only continue to maintain development against rising sea levels, climate change, extreme weather phenomena and shoreline migration, they also inflate the value of hazardous coastal properties.

Government actions do more than artificially increase property value, they also minimize--and in some cases eliminate—property owner's perceptions of risk. Land markets then capitalize these government subsidies and warped risk perceptions, resulting in property values that fail to accurately reflect the real costs of hazardous coastal locations.

The Concept of Regulatory Givings

The Fifth Amendment's Takings Clause reads: "nor shall private property be taken for public use without just compensation." As presently interpreted by the Court, this clause enables property owners to receive compensation when an entire estate is taken by a government agency and title transfers to the government; when property is physically invaded by government order, either permanently or temporarily; when regulation for other than health or safety reasons takes all or nearly all of the value of a property and when government attaches unreasonable or disproportionate permit conditions on use.

Conversely, government actions that inflate the value of private property may be considered a "givings." Any government action can magnify the value of coastal properties by reducing or reallocating risks, increasing the perceived permanence of coastal properties, improving access to coastal properties or otherwise transferring value to coastal real estate.

Fueled and maintained largely by government givings such as flood insurance, construction of flood control measures and liberal disaster relief, coastal development has increased dramatically over the last thirty years.

Perceived vs. Real Value of "At-Risk" Coastal Development

Strategic retreat will not be considered a viable erosion response measure until widely held misconceptions regarding the true value of at-risk coastal property can be overcome.

The amount of coastal property vulnerable to and impacted by inlets, erosion and storms is currently perceived as immense, and worthy of protection at all costs, because values are reported as an aggregate sum of market or assessed values.

Using market/assessed values, already inflated by government actions and policies, to justify the expenditure of funds on costly coastal protection/ mitigation efforts presents an erroneous and highly overstated portrait of at-risk coastal property.

An accurate accounting of the true worth of at-risk coastal property can be obtained by scrutinizing the contribution coastal properties make to ad valorem, occupancy and sales tax revenue, as well as the percent contribution of each revenue stream at various levels of government.

For example, 60 properties at the extreme east end of Ocean Isle Beach, Brunswick County, NC have a 2009 combined assessed value of \$18,100,460. The annual ad valorem tax revenue generated by these 60 properties, however, is \$55,206 for Brunswick County (0.058% of the county's 2009 ad valorem tax revenue) and \$16,290 for Ocean Isle Beach (0.685% of the town's 2009 ad valorem tax revenue).

An analogous situation existed in Nags Head on North Carolina's Outer Banks in November, 2009 when 60 oceanfront properties with an assessed value of \$18,908,010.00 were condemned after the Veterans Day Storm of 2009. The FY 2008 ad valorem tax revenue generated by these properties was \$49,000/year for Dare County (0.109% of the county's ad valorem tax revenue) and \$28,000 for Nags Head (0.624% of the town's ad valorem tax revenue).



The contribution at-risk coastal property makes to local economies, rather than the market/assessed value of such property, provides a way to better assess and compare the costs and benefits of erosion response measures, including retreat. The removal of 120 at-risk and damaged properties in Nags Head and Ocean Isle Beach, for example, results not in a loss of \$36 million (combined market/assessed value), but 0.6% of ad valorem tax revenue (assuming no other changes). A similar situation likely exists for occupancy and sales tax revenue.

When put in proper context, the role at-risk coastal property plays in the overall economic picture of a coastal community, county or state becomes clear. While such an approach may help government entities understand the economic merits of strategic retreat, it likely will have little - if any - influence on the overwhelming majority of individual property owners who view coastal property as an investment whose value and returns are to be maximized.

Double Dipping

Strategic retreat efforts that attempt to remove at-risk coastal property through outright purchase or condemnation are based on inherent or improved value of that property, as well as any additional value conferred upon property as a result of government actions. This results in a form of "double dipping" in which a property owner is rewarded once for values of past governmental "givings" and again for values created through private related to real market risks.

Such double-dipping substantially increases the costs of strategic retreat by requiring payments for ineffective past management responses/strategies AND the costs of correcting those past mistakes.

The problem of government givings raises the fundamental question of the extent to which property owners should be compensated for past government actions that incidentally raised property value. This question is particularly important along the coast where, absent government investments in storm damage mitigation and risk allocation mechanisms, it is likely that property values would be substantially reduced.

Overcoming Economic Barriers

For a strategic coastal retreat strategy to be effective, incentives created by government responses to coastal hazards must be eliminated. Since programs that mitigate hazards through public acquisition of high-risk private properties represent the best opportunity to remove at-risk development and prevent new development from taking its place, governmental entities can adopt mechanisms that avoid compensating property owners for increases in property value attributable solely to past government responses. Governments can counteract the high cost of coastal property acquisition programs by making past government subsidies subject to recapture as a "credit" to be offset against the cost to purchase or condemn redevelopment rights or other interests in a property.

Property acquisition programs and givings recapture mechanisms should focus on high-risk coastal properties, and a joint federal, state and local response will be necessary due to the multi-jurisdictional nature of coastal hazards. Efforts that are unnecessarily broad, lack a public education/awareness component or take a command-and-control, top-down approach may incite political backlash and fail.

Conclusions

A strategic retreat alternative will reduce conflicts among local officials, property owners and citizens; decrease property damage and associated public expenditures; preserve local economies and protect natural resources. It will also aid in the long-term protection and resiliency of the coastal/beach system which sustains coastal economies, supports tourism/recreation, and provides essential upland protection.

Once economic barriers (real and perceived) can be successfully overcome, strategic coastal retreat will provide coastal communities, counties, property owners and States with a sustainable and equitable strategy for effectively managing development and redevelopment along dynamic shorelines.



Acknowledgements

Funding to support this study was provided by the Educational Foundation of America (EFA).

Andrew Coburn
Program for the Study of Developed Shorelines
Western Carolina University
Cullowhee, NC 28723, USA
Ph (828) 227-3027
Fax (828) 227-7163
acoburn@wcu.edu

