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Redefining The American Coastline: Can The Government Withdraw Basic Services From The Coast And Avoid Takings Claims?

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REDEFINING THE AMERICAN COASTLINE: CAN THE GOVERNMENT WITHDRAW BASIC SERVICES FROM THE COAST AND AVOID TAKINGS CLAIMS?

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I. INTRODUCTION

Herodotus once said "[t]his is the worst pain a man can have: to know much and have no power to act."[1] The words of Herodotus resonate today in the debate over the habitability of the coast. Despite advances in technology and science, which have provided government and citizens alike with the knowledge of the physical and financial dangers of coastal development, society has lost control over the ability to limit and discourage development in coastal areas that are repeatedly subject to disaster. The cavalier and defiant spirit of American culture has led us to encourage and subsidize growth at the foot of our own Mount Vesuvius thereby leading to a perpetual reenactment of the same disaster.

Hurricanes, floods, and coastal erosion are not new phenomena; however, the toll of these natural disasters on humans has been exacerbated by increased development and human habitation along the coast.[2] In essence, coastal communities represent the quintessential conflict between humans and nature. Many local and state governments have sought to

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1. HERODOTUS, THE HISTORIES 504 (John M. Marincola ed., Aubrey De Selincourt trans., Penguin Books 1996) (1954).

2. INS. INFO. INST., RESIDUAL MARKET PROPERTY PLANS: FROM MARKETS OF LAST RESORT TO MARKETS OF FIRST CHOICE 8-9 (2007) (stating that fifty-three percent of nation's 153 million people lived in coastal communities in 2003). Between 1980 and 2003, the population of coastal counties grew by twenty-eight percent, which was equivalent to 33 million people. *Id.*; *see also* U.S. DEP'T OF COMMERCE, HURRICANE ANDREW: SOUTH FLORIDA AND LOUISIANA, at iii (1993).

promote coastal development as a means to generate economic prosperity by expanding the tax base and increasing employment opportunities.[3] Both the governments that have promoted such growth and the private citizens that have a proprietary or other financial interest in these areas have an incentive to protect their interests.[4] This translates into harnessing modern technology to preserve coastal property damaged by natural events.[5] Thus, many coastal communities have a cyclical life existence.[6] First, the coastal community is created. Second, the coastal community is damaged or destroyed by a natural event.[7] Third, the coastal community is reborn as disaster relief is provided and repairs are made.

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3. *See* NANCY S. PHILIPPI, FLOODPLAIN MANAGEMENT—ECOLOGIC AND ECONOMIC PERSPECTIVES 29-30 (1996) (describing numerous economic and ecological interests associated with coastal communities).

4. *See id.* at 30.

5. *See* NAT'L RESEARCH COUNCIL, MANAGING COASTAL EROSION 29, 35, 56-61 (1990) (describing prominent human methods used to combat coastal flooding and erosion such as creation and use of inlets, jetties, dredged entrances, dams, groins, seawalls and revetments, breakwaters, and beach nourishment plans).

6. *See* Oliver A. Houck, *Rising Water: The National Flood Insurance Program and Louisiana*, 60 TUL. L. REV. 61, 63 (1985) (noting that flood damages have repeatedly failed to temper coastal encroachment and development). Dauphin Island, Alabama provides a quintessential example of the cyclical existence of coastal communities. The island has been destroyed five times by hurricanes in the past twenty-five years. Rob Young & Andrew Coburn, Editorial, *Let Free Market Lash Beach Towns*, ORLANDO SENTINEL, Oct. 14, 2007, at A19. Despite the fact that Hurricane Katrina destroyed the island's vacation homes, investment properties, and infrastructure when it moved the island a hundred feet, rebuilding has commenced. *Id.* According to Rob Young and Andrew Coburn, who teach at Western Carolina University, "[i]f history is any guide, most of this new development will last only a few years" before it is destroyed. *Id.* (quotation marks omitted).

Similarly, in 2004 Hurricane Ivan destroyed County Road 399, a two-lane road in Florida, which serves as the access road to the Gulf Islands National Seashore. Kari C. Barlow, *CR 399 Repairs Delayed*, NW. FLA. DAILY NEWS, Oct. 15, 2005, at C1. Again, ten months later, Hurricane Dennis destroyed the road, and the federal government set aside $21 million for reconstruction efforts. *Id.*

Lastly, Hurricane Fran dismantled hundreds of beachfront homes and destroyed critical infrastructure when it struck along the North Carolina coast in 1996. Stuart Leavenworth & Todd Richissin, *Fran Rearranges Not Only Coastline but Also Development Debate*, THE NEWS & OBSERVER, Sept. 22, 1996, at 1A. On North Topsail Island, the North Carolina Department of Transportation estimated that it would cost $500,000 to repair a road that had been repeatedly damaged. *Id.* According to the Department, the state had spent $4.2 million since 1980 to repair the same road from storm damage. *Id.* In other areas of the state such as Wrightsville Beach, the United States Army Corps of Engineers (Army Corps) had spent more than $10 million since 1980 to replenish the beach with sand. *Id.*

7. The term "natural event" is used throughout the paper to refer to floods, hurricanes, and coastal erosion. The term is slightly broader than natural disaster because it encompasses coastal erosion.

This cyclical pattern—creation, destruction, and repair—embodies the life of many American coastal communities. The resources spent at the federal, state, and local level that contribute to the coastal community life-cycle are staggering.[8] While the federal government spends billions of dollars to fund agencies such as the Federal Emergency Management Agency (FEMA),[9] which runs programs like the National Flood Insurance Program (NFIP), state and local governments are left to cover the shortfalls in federal disaster relief expenditures.[10] This cycle is repeated because in today's political climate it is considered outrageous to refuse to rebuild a coastal community after a natural event.[11] Imagine the outcry had political leaders decreed that New Orleans would not be rebuilt after Hurricane Katrina.

This Comment posits that the coastal community lifecycle will be broken in the future as a new coastal community ethic and corresponding public policy agenda emerge in response to the effects of climate change and society's internalization of the costs of rebuilding coastal communities. This ethic will embrace the belief that living along the coast, to a certain extent, is an individual choice and that the costs and responsibilities associated with that choice should be borne by the individual rather than the government.

Moreover, this Comment explores the ways in which a new coastal community ethic will redefine the American coastline, asserting that one approach governments may use to minimize coastal costs is to withdraw basic services like utilities and road repair projects from coastal communities. The question that then arises is whether the government can change its public policy for free. If the government refused to rebuild a coastal community's infrastructure would property owners be entitled to compensation for a "taking" of their property under either the Fifth or Fourteenth Amendments? After analyzing landowners' takings claims, this Comment concludes that the government can change its coastal community

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8. DENNIS MILETI, DISASTERS BY DESIGN: A REASSESSMENT OF NATURAL HAZARDS IN THE UNITED STATES 72-73, 77 (1999) (stating that between 1975 and 1994 flood-related property damage was between $19.6 and $196 billion while hurricane related property damage for same period was $11 billion to $111 billion).

9. DEP'T OF HOMELAND SEC., RESPONDING TO NATURAL DISASTERS 137, *available at* http://www.whitehouse.gov/omb/budget/fy2007/pdf/budget/dhs.pdf (last visited Nov. 8, 2008) [hereinafter DEP'T OF HOMELAND SEC.] (stating FEMA had a budget of $3.1 billion in fiscal year 2007).

10. *See* PHILIPPI, *supra* note 3, at 68-70 (describing state and local government involvement in managing floodplains).

11. *Id.* at 110 (explaining influence that flood victims have over political leaders).

public policy without compensating landowners. The legal explanation, however, may differ from the political one.[12]

Part I of this Comment provides a brief historical overview of coastal property damage, describes the financial costs associated with natural disasters along the coastline, and discusses the extent of coastal development in the United States. Part II explains the major causes that have led to explosive coastal development, including perceived technological advances in protecting coastal property and social policies such as the National Flood Insurance Program. Part III discusses the factors that may change the traditional coastal community lifecycle, such as climate change and the internalization of costs associated with maintaining coastal communities. Part IV explores whether the government could withdraw basic services from the coast and refuse to rebuild damaged infrastructure without compensating landowners. Although the government may not have to compensate landowners with legal damages, it would likely have to appropriate funds to garner political support for this policy change. Part V concludes that the government's refusal to rebuild coastal communities' infrastructure is a powerful, economically efficient tool that could be used to reshape the American coastline.

I. COASTAL DAMAGE CAUSED BY FLOODS AND HURRICANES: A FAMILIAR SIGHT

A. General Overview

Although Hurricane Katrina is at the forefront of peoples' memory, Hurricane Camille, which caused similar devastation thirty-five years earlier in 1969, has largely been forgotten.[13] The devastating damages inflicted by hurricanes are not a new phenomenon.[14] Between 1921 and

12. Currently, there is no case law directly on point that might suggest a resolution to these questions. The absence of case law reflects the fact that all levels of government currently spend enormous sums of money to rebuild coastal communities after natural events thereby eliminating these potential claims.

13. *See* WALLACE KAUFMAN & ORRIN H. PILKEY, JR., THE BEACHES ARE MOVING: THE DROWNING OF AMERICA'S SHORELINE 138-39 (1983).

14. DAVID M. BUSH, ORRIN H. PILKEY JR. & WILLIAM J. NEAL, LIVING BY THE RULES OF THE SEA 1 (1996). The following list offers a brief synopsis of some of the major hurricanes in the twentieth century and the financial costs: Great Miami Hurricane (1926), $760 million in damage in 2004 dollars; Hurricane Hazel (1954), $280 million; Hurricane Betsy (1965), $1 billion; Hurricane Frederic (1979), $2.3 billion; Hurricane Hugo (1989), $7 billion; and Hurricane Andrew (1992), $25 billion. *Id.*

1960, 170 storms battered the Atlantic Coast.[15] Sensationalized accounts of flood and hurricane disasters by the media have led the public to perceive major disasters as "acts of God."[16] The act of God mentality allows people to view their experiences as isolated events.[17] Moreover, media coverage following a natural event often glorifies irrational decisions by portraying local residents as stubborn and steadfast.[18] Such naiveté toward the power of nature led Wallace Kaufman and Orrin Pilkey to draw an analogy between tragic scenes in silent films and horrific natural disasters:

> In silent films and cartoons there is a classic scene in which the heroine is tied to a railroad track and the train is coming. Time and again she escapes. This scene is reenacted in reality by ordinary people, whose numbers are a thousandfold greater than those of the film heroes. The Gulf Coast and the Atlantic Seaboard are the railroad tracks, and the trains are hurricanes and winter storms. Instead of people tied to tracks, there are houses and possessions. The owners, banks, and insurance companies have tied the knots by refusing to allow homeowners to move or abandon damaged homes. Unfortunately, once the storm has come and gone, sympathy focuses our attention on the victim and we forget how she came to be tied on the tracks.[19]

Governments have an obligation to provide relief to those harmed by natural events; however, governments also have a corresponding duty to society to examine the factors that create disasters. The government often upholds its former obligation while neglecting the latter.

B. The Growth of Coastal Communities and the Corresponding Costs of Natural Events

The staggering losses experienced by coastal communities, frequently associated with floods and hurricanes, have increased alongside the growing percentage of the population with some connection to the coast.[20]

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15. KAUFMAN & PILKEY, *supra* note 13, at 134.

16. *Id.* at 114.

17. *See id.* at 137. In a study conducted by Toronto geographers ninety percent of the people interviewed indicated that they had personally experienced a storm, but only two-thirds expected to experience more storms in the future. *Id.*

18. *See id.*

19. *Id.* at 132.

20. *See* NAT'L RESEARCH COUNCIL, *supra* note 5, at 16.

Eighty-five percent of the nation's population is concentrated in the thirty states that have a coastline.[21] Among those states with coastlines there are a total of 451 coastal counties.[22] The number of people living within one of these coastal counties increased from eighty million in 1960, to 110 million in 1990.[23] Additionally, the population growth in areas within five miles of the shoreline has outpaced population growth in other areas by three times the national average.[24]

As the population of coastal communities has increased so too have the costs related to flood and hurricane damage. Floods in the United States are the source of the greatest loss of life and property damage among all types of natural disasters during the twentieth century.[25] While the number of deaths from floods between 1975 and 1994 was between 1,600 and 2,310,[26] the property losses for that same period were between $19.6 billion and $196 billion.[27] Although hurricanes are less deadly than floods—registering 173 deaths between 1975 and 1994—they still account for property damages between $11 billion and $111 billion.[28]

While damages may be recouped by property owners from a myriad of sources, FEMA alone expended $2.8 billion between 1989 and 1994 for disasters such as floods and hurricanes.[29] Moreover, the federal govern-

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21. *Id.* (stating that out of eighty-five percent of people who live in states with coastline, fifty-three percent live in fifty-mile wide range of coast); *see also* INS. INFO. INST., *supra* note 2, at 8-9 (stating that fifty-three percent of country's population of 153 million people live in coastal county).

22. BUSH ET AL., *supra* note 14, at 5.

23. *Id*; *see also* INS. INFO. INST., *supra* note 2, at 8-9 (offering similar findings in growth of coastal counties); Cornelia Dean, *Some Experts Say It's Time to Evacuate the Coast (for Good)*, N.Y. TIMES, Oct. 4, 2005, at F4 [hereinafter *Some Experts Say It's Time to Evacuate the Coast*] (describing growth of coastal communities).

24. BUSH ET AL., *supra* note 14, at 5.

25. CHARLES A. PERRY, SIGNIFICANT FLOODS IN THE UNITED STATES DURING THE 20TH CENTURY—USGS MEASURES A CENTURY OF FLOODS 25 (2000).

26. MILETI, *supra* note 8, at 72 (reporting an average of seventy-eight deaths per year between 1925 and 1988).

27. *Id.* (stating that sum of crop and property losses between 1975 and 1994 was between $27.7 billion and $277 billion).

28. *Id.* at 76-77. Hurricane Katrina, which effected a 90,000 square mile area (equivalent to the size of Great Britain), resulted in the evacuation of 1.5 million people and the damage or destruction of 200,000 homes. DEP'T OF HOMELAND SEC., *supra* note 9, at 135. Over $80 billion has been made available for response and recovery efforts. *Id.; see also* Mark Schleifstein, *Focus on Rebuilding, Not Blame, FEMA Says; Official Says More Money Is on the Way*, TIMES-PICAYUNE (New Orleans), Aug. 28, 2007, at Metro 1 (stating that FEMA has allocated more than $8.3 billion in funds to be used in Louisiana, Mississippi, Alabama, and Texas for clean-up and reconstruction projects).

29. MILETI, *supra* note 8, at 72.

ment spent $2.5 billion between 1978 and 1990 for flood losses that were covered under the NFIP.[30] Private insurance companies, however, spent between $35 billion and $41 billion for losses associated with floods.[31]

C. Conclusion

History has forewarned coastal communities of their precarious existence. Lives are lost and property is damaged when hurricanes and floods strike coastal communities. Despite repeated warnings, our coastal communities have continued to grow at astounding rates. Consequently, the federal government, along with local and state governments and private insurers, has carried a greater burden to provide a safety net for those that suffer losses.

II. CAUSES OF COASTAL DEVELOPMENT

A. Economic Factors

Historically, floodplains were developed because the land was fertile and productive for farmers.[32] Floodplains also provided both shipping access, critical to commerce, and a place to draw water and dispose of waste.[33] Over time, these historical explanations for coastal development shifted. Today, local governments benefit from coastal development because it expands the local tax base[34] and increases tourism and employment.[35] Private landowners benefit from development through increased property values.[36] With high property values and tax revenues at stake,

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30. *Id.* at 73.

31. *Id.*; *see also* INS. INFO. INST., *supra* note 2, at 2, 4 (stating that exposure to loss in Fair Access to Insurance (FAIR) Plans, which are those that provide property insurance from residual market, increased from $40.2 billion in 1990 to $387.8 billion in 2005). In 2004, one study by AIR Worldwide found that the value of insured coastal property in those states bordering the Atlantic and Gulf of Mexico amounted to $6.86 trillion. *Id.* at 9.

32. PHILIPPI, *supra* note 3, at 29.

33. *Id.*

34. KAUFMAN & PILKEY, *supra* note 13, at 226.

35. *Id.*, *supra* note 13, at 226.

36. *See* Vivian Marino, *Water, Water, Anywhere*, N.Y. TIMES, Mar. 31, 2006, at F1 (stating that popular locations for buyers include California; South Florida; South Padre Island, Texas; Holden Beach, North Carolina; the Outer Banks, North Carolina; and Myrtle Beach, South Carolina. According to David Hehman, chief executive of EscapeHomes.com, "[y]ou're going to pay a 25 percent premium for a view and a 50 percent to be on the water." *Id.* (quotation marks omitted). Hehman believes that the national average price for an oceanfront home is nearly $1 million. *Id.*

coastal communities have strong incentives to protect property and to promote growth. Consequently, many "local building departments are often unable or unwilling to keep pace with code enforcement—even if there is an adequate code to enforce."[37]

B. Technology and the Illusions of Safety

According to renowned environmentalists Wallace Kaufman and Orrin Pilkey, Jr., coastal development is often premised on the assumption that humans have the technology to minimize and control the effects of nature: "Perhaps as a nation we are too traditionally optimistic, confident of avoiding or conquering all disasters. We choose to stand, express ourselves freely in our development, and fight the natural forces with our engineering genius."[38] This "engineering genius"[39] has led to the development and application of a number of human devices to "protect" and "preserve" coastal communities.[40] Engineering solutions fall generally under one of two categories: either (1) hard stabilization, like seawalls and groins;[41] or (2) soft stabilization like beach replenishment.[42]

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37. U.S. DEP'T OF COMMERCE, *supra* note 2, at iv.

38. KAUFMAN & PILKEY, *supra* note 13, at 113.

39. *Id.*

40. *See generally* NAT'L RESEARCH COUNCIL, *supra* note 5, at 2.

41. ORRIN H. PILKEY & KATHARINE L. DIXON, THE CORPS AND THE SHORE 38 (1996); NAT'L RESEARCH COUNCIL, *supra* note 5, at 56-59 (1990). In Louisiana, Route 82 was frequently washed away in storms. KAUFMAN & PILKEY, *supra* note 13, at 49. This led the Army Corp to spend several million dollars to construct a four-mile-long seawall along the beach. *Id.* At Camp Ellis, Maine, the Army Corps constructed jetties on the north side of the Saco River mouth (1867) and the south side (1891) to preserve a sandy port, which was important to the textile industry. PILKEY & DIXON, *supra* at 174, 175. On Grand Isle in Louisiana, the Army Corps constructed a jetty and a seawall in 1976 because coastal developments were destroyed on several occasions and homeowners could not be convinced to setback their houses. KAUFMAN & PILKEY, *supra* note 13, at 99-100.

42. NAT'L RESEARCH COUNCIL, *supra* note 5, at 56-59. Beginning in the late 1960s and early 1970s a movement from hard stabilization to soft stabilization occurred, which led some states, including North Carolina and Maine, to ban permanent hard stabilization structures. DAVID R. GODSCHALK ET AL., NATURAL HAZARD MITIGATION: RECASTING DISASTER POLICY AND PLANNING 33 (1999). Since this shift, beach replenishment has become a popular means to mitigate coastal erosion and flood damage. *Id.* Beach replenishment is the process by which sand is used either to directly fill a targeted area or to occasionally supplement a beach where sand has been lost. *See* R.W.G. CARTER, COASTAL ENVIRONMENTS 459 (1988). Beach replenishment has been used extensively along the East Coast to preserve beaches in Atlantic City, New Jersey; Coney Island, New York; Ocean City, Maryland; Virginia Beach, Virginia; Jacksonville Beach, Florida; and Miami Beach, Florida. PILKEY & DIXON, *supra* note 41, at 75. By 1987, approximately 400 million

The use of hard and soft stabilization strategies to mitigate coastal erosion and flooding has adverse effects. In addition to ruining the natural aesthetic of the shoreline, hard stabilization structures can exacerbate coastal erosion and destroy beaches "by providing a stationary object against which a retreating beach narrows and eventually disappears."[43] Although soft stabilization methods are more aesthetically attractive, they are costly,[44] ecologically dangerous, and often ineffective.[45] Despite the adverse consequences associated with mitigation techniques, local governments and private landowners continue to advocate for their use.[46] Hard and soft stabilization strategies may provide relatively quick fixes, but these approaches do not represent enduring solutions.[47] One study conducted along the shoreline of Lake Ontario found that in ten years over seventy percent of hard stabilization structures were damaged and after thirty years that number increased to ninety-six percent.[48]

C. The National Flood Insurance Act and the Encouragement of Coastal Growth

After a number of costly floods struck different parts of the country in the 1960s, Congress and the President commissioned national studies to explore the possibility of subsidized flood insurance.[49] In 1968, the National Flood Insurance Act was passed[50] with the belief that a system of subsidized flood insurance could "promote the public interest by providing appropriate protection against the perils of flood losses and encouraging

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cubic yards of sand were distributed among 400 miles of shoreline in the United States. *Id.* at 78. As a point of reference to comprehend the magnitude of this sand distribution, one should consider that 680,000 cubic yards of sand is enough to fill several football stadiums to the top of the stands. KAUFMAN & PILKEY, *supra* note 13, at 29.

43. PILKEY & DIXON, *supra* note 41, at 40.

44. *Id.* at 78-79 (stating that by 1995 total national costs for replenishment projects were between $4 and $5 billion).

45. *Id.* at 369 (citing study of a beach renourishment project along Wrightsville Beach in North Carolina, which found that between fifty-four and sixty-two percent of beach fill was lost within year).

46. Most recently, the Army Corps' proposals to protect the Gulf Coast from future hurricanes and floods have come under attack from scientists. Cornelia Dean, *Corps Proposal for Gulf Draws Criticism from Scientists*, N.Y. TIMES, Dec. 19, 2006, at F2.

47. *See* CARTER, *supra* note 42, at 439 ("Very few remedial solutions have design lives of more than 40-50 years . . . .").

48. *Id.* at 450.

49. *See* GODSCHALK ET AL., *supra* note 42, at 31.

50. National Flood Insurance Act of 1968, Pub. L. No. 90-448, § 1303(c), 82 Stat. 572 (1968) (codified as amended at 42 U.S.C. §§ 4001-4128 (2000)).

sound land use by minimizing exposure of property to flood losses."[51] A nationally subsidized system was necessary, according to Congress, because "many factors have made it uneconomic for the private insurance industry alone to make flood insurance available to those in need of such protection on reasonable terms and conditions."[52]

FEMA, however, did not assume management control over disaster relief and the NFIP until Executive Order 12,127 was issued in 1979.[53] Under the NFIP, FEMA maps flood hazards[54] and identifies communities that may qualify for subsidized insurance.[55] FEMA uses Flood Hazard Boundary Maps (FHBM) to designate areas that are at risk of floods.[56] If a community qualifies, FEMA provides them with minimum land use standards for the development and location of structures, which must be implemented to attain subsidized insurance.[57] If a community adopts FEMA's standards, FEMA then promulgates flood insurance policies and rates for residents of that community.[58] The NFIP has expanded rapidly and today covers 4.5 million properties, representing $500 billion in coverage.[59]

While the NFIP had good intentions, in practice, it has offered coastal communities all carrot and no stick. First, the NFIP has subsidized development along the coast that would not otherwise have been feasible.[60]

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51. 42 U.S.C. § 4001(c)(1) (2006).

52. *Id.* § 4001(b)(1).

53. PHILIPPI, *supra* note 3, at 54.

54. 44 C.F.R. § 59.1 (2007) (defining Flood Hazard Boundary Map (FHBM) as official map created by National Flood Insurance Program (NFIP) Administrator that designates special hazard areas).

55. *See* Christine M. McMillan, Comment, *Federal Flood Insurance Policy: Making Matters Worse*, 44 HOUS. L. REV. 475, 480 (2007).

56. 42 U.S.C. § 4101(a) (describing floodplain as land in community that is "subject to a 1 percent or greater chance of flooding in a given year").

57. 42 U.S.C. §§ 4012(c)(2), 4102(c); *see also* 44 C.F.R. § 59.22(a)(3); Christine A. Klein & Sandra B. Zellmer, *Mississippi River Stories: Lessons from a Century of Unnatural Disasters*, 60 SMU L. REV. 1471, 1491 (2007).

58. *See* 42 U.S.C. § 4014(a); McMillan, *supra* note 55, at 481. The NFIP "covers up to $250,000 per event for a residential structure." *Id.* at 489.

59. McMillan, *supra* note 55, at 493. In 1979, the NFIP had more than 1.8 million policies in force and by 2001 this number had increased to nearly 4.5 million. FEMA, NATIONAL FLOOD INSURANCE PROGRAM: FINANCIAL AND STATISTICAL COMPENDIUM 14 (2001).

60. McMillan, *supra* note 55, at 499-500; *see also* CARTER, *supra* note 42, at 369. The NFIP has been criticized for subsidizing insurance in disaster-prone areas, which "bribes people to scorn common sense, damages the environment, and creates staggering liabilities for taxpayers." James Bovard, *Uncle Sam's Flood Machine*, THE FREEMAN, Jan./Feb. 2006, at 36; *see also* Charlie Crist, Editorial, *The Politics of Disaster*, WALL ST. J., Oct. 10, 2007,

Second, FEMA has little control over enforcement of local ordinances and compliance.[61] Third, the premiums paid by policyholders under the NFIP do not correspond to the risks of living in coastal areas.[62] The premium rates under the NFIP are based on an average of expected losses for a year.[63] These rates are lower than what private insurers would charge because they fail to incorporate the risks of catastrophic losses.[64] Thus, the premiums charged by the NFIP are insufficient "to build loss reserves necessary to cover potential losses from a catastrophic loss year, or potentially even a series of years with high successive losses."[65] While the NFIP grosses about $2.2 billion in premiums, it was faced with $22 billion in claims in 2005 after Hurricane Katrina struck.[66] Finally, the NFIP provides subsidized insurance to property owners, which is far below the cost of similar private insurance.[67] Therefore, growth in disaster-prone areas is encouraged because people do not have to internalize the costs of living in floodplains.

D. Conclusion

A combination of market forces, technological developments, and government incentives have spurred coastal development. These factors have been responsible for perpetuating the coastal community lifecycle. Although such factors help to explain the current predicament surrounding coastal communities, these factors are not determinative of their future.

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at A20 (stating that insurance subsidies essentially transfer risk from coastal homeowners to taxpayers, encouraging homeowners to stay in disaster-prone areas).

61. McMillan, *supra* note 55, at 501; *see also* Houck, *supra* note 6, at 157. In *United States v. Parish of St. Bernard*, FEMA brought suit against a Louisiana parish for failure to enforce flood mitigation methods agreed upon under the NFIP. 756 F.2d 1116, 1119 (5th Cir. 1985). The Fifth Circuit held that the NFIP did not create contractual obligations between communities participating in the NFIP and the United States. *Id.* This holding substantially undermined FEMA's ability to punish a community's noncompliance. McMillan, *supra* note 55, at 501-02.

62. *See* McMillan, *supra* note 55, at 503.

63. Daniel D. Barnhizer, *Givings Recapture: Funding Public Acquisition of Private Property Interests on the Coasts*, 27 HARV. ENVTL. L. REV. 295, 334 (2003).

64. *Id.*

65. *Id.* at 334-35.

66. *See* McMillan, *supra* note 55, at 495-96; *see also* John K. Warren, *Restoring Responsibility and Accountability in Disaster Relief*, 31 WM. & MARY ENVTL. L. & POL'Y REV. 893, 907 (2007).

67. Barnhizer, *supra* note 63, at 333.

III. THE POTENTIAL EVOLUTION OF THE COASTAL COMMUNITY LIFECYCLE

A. Climate Change: A Transformative Force

Political, economic, and social factors have shaped our society's belief that the coast is an inhabitable place. While our beliefs have contributed to the coastal community lifecycle, change and the development of a new coastal ethic is possible in the future. Climate change and the physical and economic costs associated with it are becoming too great for individuals and governments to dismiss. Our society will likely have to physically and cognitively adapt to the effects of climate change.[68]

Although some rogue scientists dismiss the severity of climate change,[69] there is overwhelming consensus among the scientific community that climate change poses a serious threat to humanity.[70] Between 1995 and 2006, the world recorded eleven of the twelve warmest years since global surface temperatures began being recorded in 1850.[71] Consequently, substantial sea level increases have occurred between 1961 and 2003 as glaciers, ice caps, and ice sheets melt.[72] Specifically, between 1961 and 1992, the sea level rose an average of 1.8 mm/yr; however, between 1993 and 2003, this rate increased to an average of 3.1 mm/yr.[73] Rising sea levels are consistent with analysis of satellite data by the Intergovernmental Panel on Climate Change (IPCC) since 1978, which shows a decrease in the

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68. *See* CARTER, *supra* note 42, at 557 ("The potential economic and environmental damage from secular sea-level rise is frightening, certainly billions of dollars will be involved.").

69. *See generally* Ross Gelbspan, *The Heat is On: The Warming of the World's Climate Sparks a Blaze of Denial*, HARPER'S MAG. 82, Dec. 1995; *see also* The Myth of Global Warming, http://www.ourcivilisation.com/aginatur/moregw.htm (last visited Oct. 4, 2008).

70. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, IPCC FOURTH ASSESSMENT REPORT: SUMMARY FOR POLICYMAKERS 2 (2007) [hereinafter IPCC (2007)] ("Of the more than 29,000 observational data series, from 75 studies, that show significant change in many physical and biological systems, more than 89% are consistent with the direction of change expected as a response to warming.").

71. *Id.* at 2. The report provides further context to understand the extent of warm temperatures over the last fifty years: "[a]verage Northern Hemisphere temperatures during the second half of the 20th century were *very likely* higher than during any other 50-year period in the last 500 years and *likely* the highest in at least the past 1300 years." *Id.; see e.g.,* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 1995, at 5 (1996) [hereinafter IPCC (1996)] (reaching similar conclusions).

72. IPCC (2007), *supra* note 70, at 2; *see also* ORRIN H. PILKEY, A CELEBRATION OF THE WORLD'S BARRIER ISLANDS 43 (2003); IPCC (1996), *supra* note 71, at 6.

73. IPCC (2007), *supra* note 70, at 2; *see generally* IPCC (1996), *supra* note 71, at 4.

amount of annual average Arctic sea ice by 2.7 [2.1 to 3.3]% per decade.[74] Conservative estimates assume that the sea level will increase an average of two feet per century, but other reports suggest increases by as much as fifteen feet by 2200.[75] This is particularly concerning because rising sea levels also cause land above sea level to erode fifty to 200 feet for every foot of sea level rise.[76] A report in 2000 by the Heinz Center for Science, Economics and Environment, which looked at the impact of rising sea levels along the United States coast, found that a quarter of all houses within 500 feet of the coast could be lost by 2060 due to rising sea levels.[77]

As temperatures and sea levels rise, coastal communities will be threatened by flooding and more volatile and extreme weather.[78] The IPCC found that between 1900 and 2005, eastern regions of North America experienced substantial increases in precipitation.[79] A further study just released by Environment America found that New England experienced a sixty-one percent increase in the number of big storms over the past sixty years.[80]

Human-created fossil fuel emissions are one of the driving forces behind climate change.[81] The IPPC projects that between 2000 and 2030,

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74. IPCC (2007), *supra* note 70, at 1.

75. James G. Titus, *Does the U.S. Government Realize That the Sea is Rising? How to Restructure Federal Programs So That Wetlands and Beaches Survive*, 30 GOLDEN GATE U. L. REV. 717, 718 (2000); *see generally* Mark Stallworthy, *Sustainability, Coastal Erosion and Climate Change: An Environmental Justice Analysis*, 18 J. ENVTL. L. 357, 361 (2006). Rising sea levels stand to exacerbate coastal erosion. DANIEL SAREWITZ, ROGER PIELKE & RADFORD BYERLY, PREDICTION: SCIENCE, DECISION MAKING, AND THE FUTURE OF NATURE 159 (2000).

76. Titus, *supra* note 75, at 732-33.

77. Cornelia Dean, *Next Victim of Warming: The Beaches*, N.Y. TIMES, June 20, 2006, at F1 [hereinafter *Next Victim of Warming*]; *Some Experts Say It's Time to Evacuate the Coast*, *supra* note 23, at F4. Coastal erosion, which has been exacerbated by human activities and rising sea-levels spawned by glacial melting is another force that threatens coastal communities. *See* STANLEY R. RIGGS & DOROTHEA V. AMES, DROWNING THE NORTH CAROLINA COAST: SEA-LEVEL RISE AND ESTUARINE DYNAMICS 147 (2003). One study conducted in North Carolina found that approximately 629 acres of land that was included in the 1593 miles observed in the study were lost each year. *Id.* at 146. Although the loss was distributed throughout a large area of land, "the cumulative effects of the loss rate through time represent an inevitable and significant change to both North Carolina's coastal system and individual property owners." *Id.*

78. *See* IPCC (2007), *supra* note 70, at 9-12.

79. *Id.* at 2.

80. John Richardson, *Group Blames Warming for Maine Storm*, PORTLAND PRESS HERALD, Dec. 6, 2007, at A1.

81. IPCC (2007), *supra* note 70, at 5. Since the industrial age in the 1750s, the increased concentration of greenhouse gas and aerosols is largely responsible for the acceleration of

carbon dioxide emissions will increase by twenty-five to ninety percent.[82] If green house gases are admitted into the earth's atmosphere at this rate, additional warming will occur and the consequences will be more detrimental than those experienced in the twentieth century.[83] The earth would continue warming for the next century even if all emissions ended tomorrow.[84] The prospect of limiting the damage from climate change through reducing green house gas emissions is grim.

Climate change predictions pose serious questions concerning the role of government in subsidizing continued costs associated with coastal communities. As damages to coastal communities increase due to rising sea levels, floods, coastal erosion, and hurricanes, a new dialogue has the potential to transpire around two central questions: (1) should certain coastal communities be rebuilt after repeated damage or destruction; and (2) if coastal communities should be rebuilt, who should bear the costs?

B. Tension within Governments

Although federal tax dollars are used to subsidize flood insurance, provide disaster relief, and repair damaged infrastructure,[85] local and state

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climate change. *Id.*; *see also* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, IPCC SECOND ASSESSMENT CLIMATE CHANGE 1995, at 3 (1996) [hereinafter IPCC (1995)]. Findings by the IPCC show that "global GHG [green house gas] emissions due to human activities have grown since pre-industrial times, with an increase of 70% between 1970 and 2004." IPCC (2007), *supra* note 70, at 5; *see also* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, SAFEGUARDING THE OZONE LAYER AND THE GLOBAL CLIMATE SYSTEM: ISSUES RELATED TO HYDROFLUOROCARBONS AND PERFLUOROCARBONS 5 (2005). Carbon dioxide is the most significant anthropogenic green house gas, and emissions have increased by eighty percent between 1970 and 2004. IPCC (2007), *supra* note 70, at 5. The concentration of greenhouse gasses "are higher [today] than at any time in at least the past six hundred and fifty thousand years." Michael Specter, *Big Foot: In Measuring Carbon Emissions, It's Easy to Confuse Morality and Science*, THE NEW YORKER, Feb. 25, 2008, at 44.

82. IPCC (2007), *supra* note 70, at 7.

83. *Id.* Even if carbon dioxide emissions were reduced to 1994 levels "they would lead to a nearly constant rate of increase in atmospheric concentrations for at least two centuries." IPCC (1995), *supra* note 81, at 3.

84. Specter, *supra* note 81, at 46. In order to actually minimize the devastating effects of climate change, the world would have to prevent increases in emissions for the next decade and then "reduce them by at least sixty to eighty per cent [sic] by the middle of the century." *Id.*

85. BUSH ET AL., *supra* note 14, at 3. Currently, federal taxpayers contribute to coastal communities through underwriting disaster assistance and the NFIP. *Id.* Federal tax dollars are used to rebuild and replace communities' infrastructure, subsidize loans to businesses, and provide temporary housing for those who are displaced. *Id.* Federal tax dollars are also used to support efforts by the Army Corps to rebuild beaches and to construct coastal

communities are often required to expend considerable resources for similar activities.[86] Generally, federal tax dollars subsidize seventy-five percent of the costs associated with public infrastructure and other damage caused by a disaster, but states and local municipalities have to provide matching funds.[87] Disputes frequently arise between states and the federal government over the exact amount of reimbursements.[88] Even when disaster relief is disbursed by the federal government, state and local governments are responsible for a portion of the costs associated with repairs to infrastructure. Under the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988,[89] the federal government subsidizes repairs for local governments' infrastructure;[90] however, local govern-

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defenses such as seawalls. *Id.* A recent study found that those living in closer proximity to the coast support taxpayer property insurance subsidies while sixty-three percent of those from interior counties and non-coastal states believe that the same subsidies are unfair. INS. INFO. INST., *supra* note 2, at 12.

86. *See Emerging from Isabel: A Review of FEMA's Preparation for and Response to Affected Areas in the Hampton Roads Region: Hearing before H. Comm. on Government Reform*, 108th Cong. 14 (2003) (testimony of Eric Tolbert, Director, Response Division, Federal Emergency Management Agency) [hereinafter *Emerging from Isabel*].

87. 42 U.S.C. §§ 5170b, 5173, 5193 (2000); *Emerging from Isabel*, *supra* note 86. When assistance is "essential to meeting immediate threats to life and property resulting from a major disaster" the federal government can provide seventy-five percent of the costs. 42 U.S.C. § 5170b. Under the Stafford Act, supplemental federal disaster relief is only provided after local and state governments have applied resources. *Id.*

88. Governor Kathleen Blanco of Louisiana has been locked in a bitter battle with the federal government over reimbursement amounts for the state's Road Home program, which provided compensation to homeowners who experienced only wind damage from Hurricane Katrina. David Hammer, *Blanco Move May Signal Cease-fire; Shortfall Had Set Off Fed-state Bickering*, TIMES-PICAYUNE (New Orleans), June 3, 2007, at National 23. The state asserts that it should receive compensation for its disbursements made under the Road Home program because the state was never notified by the federal government that only flood damage, and not wind damage, would be covered by the federal government. *Id.* The federal government argues that this point was made explicit to the state. *Id.* When the costs are of such magnitude the stakes are high because "whoever gets the blame will determine whether Congress picks up the tab or forces Louisiana to tap its current operating budget surplus to keep the Road Home solvent." *Id.*

The tension between states and the federal government is further reflected in comments made by Republican Senator Tom Coburn, who announced that he did not "believe that everything that should happen in Louisiana should be paid for by the rest of the country. I believe there are certain responsibilities that are due the people of Louisiana." Carl Hulse, *G.O.P. Split Over Big Plans for Storm Spending*, N.Y. TIMES, Sept. 16, 2005, at A1 (quotation marks omitted).

89. 42 U.S.C. §§ 5121-5206.

90. Leslie Eaton, *Gulf Hits Snags in Rebuilding Public Works*, N.Y. TIMES, Mar. 31, 2007, at A1.

ments' eligibility for federal funds is contingent on their ability to follow certain requirements such as advancing ten percent of the costs for building projects.[91] Local governments argue that the ten percent requirement makes disaster relief funds unattainable.[92] While ten percent seems like a modest contribution for municipalities, it can still amount to millions of dollars depending on the magnitude of the natural disaster and the cost of repairs.

The tension between states and the federal government concerning who should bear the responsibility for the costs of disaster relief and repairs is likely to intensify in the future. The effects associated with climate change and ensuing sea-level rise will be widespread.[93] A Hurricane Katrina once every thirty years can be dismissed as an isolated event or an act of God, but if a hurricane of similar magnitude struck the United States every year, or every two years, our thinking about coastal communities and responses would likely change.[94] What if a hurricane of such magnitude struck the same location every year? What if the rising sea level started to frequently flood Manhattan? It is now projected that by 2020 a single storm could cause $500 billion in damage.[95] The science surrounding climate change

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91. *Id.*

92. *Id.*

93. *See* CARTER, *supra* note 42, at 557-58.

> The projected rises in sea-level . . . will lead to coast erosion and redistribution of sediments, wetland submergence, flood plain water logging and salt intrusion into coastal aquifers. These changes will, in turn, cause disruption of residential, industrial and commercial activities, sever transport routes and ruin agricultural land. The consequences are staggering, both in human and financial terms . . . .

Id.

94. Hurricane Katrina, with total costs as high as $250 billion, was the most costly disaster in American history. *FEMA and Gulf Coast Rebuilding*: *Hearing Before the Subcomm. on Disaster Recovery and S. Comm. on Homeland Security and Governmental Affairs*, 110th Cong. (2007) (Statement of Ray Nagin, New Orleans Mayor). Katrina killed 1,400 Louisiana residents, displaced 1.3 million people, destroyed 18,000 businesses, and damaged 134,344 housing units and ninety-five percent of the city's 350 buildings. *Id.*; *see also* Klein & Zellmer, *supra* note 57, at 1499-1502 (describing damages inflicted by Hurricane Katrina). The city's infrastructure including utilities, roads, drainage, pumps, bridges, water supply facilities, and communications, were damaged or destroyed by the 480 billion pounds of water that entered the city. *FEMA and Gulf Coast Rebuilding*, *supra.* Such amazing losses have led some experts like Daniel P. Schrag, director of the Harvard University Center for the Environment, to question whether it is rational to spend hundreds of millions of dollars to repair a city that will be "in harm's way once again." *See Some Experts Say It's Time to Evacuate the Coast*, *supra* note 23, at F4 (quotation marks omitted). The stakes of rebuilding in the Gulf Coast are high, considering that FEMA has allocated more than $8.3 billion to state and local governments in Louisiana, Mississippi, and Alabama. Schleifstein, *supra* note 28.

95. Kenneth Chang, *In Study, A History Lesson On the Costs of Hurricanes*, N.Y. TIMES, Dec. 11, 2005, at A1.

suggests that these possibilities stand to become reality. Although we can try to harness technology to better protect the coasts, history and scientific projections suggest that this is a losing battle.

C. Conclusion

In the future, exorbitant costs associated with rebuilding coastal communities combined with the worsening effects of climate change have the potential to push society past a threshold for which it is willing to bear those costs.[96] At this tipping point, a new coastal community ethic is likely to emerge whereby coastal living would be characterized as a private risk rather than a social risk.[97] Under these circumstances, governments could begin to retreat from the coast by withdrawing basic services from coastal communities and refusing to repair damaged infrastructure. Although this result is not certain, the legal implications of such actions are important to consider.

IV. CAN THE GOVERNMENT CHANGE ITS PUBLIC POLICY FOR FREE?

A. Overview

In the future, local and state governments could begin to geographically redefine inhabitable boundaries in an effort to reduce the cost of coastal communities. Rather than attempting to acquire coastal property through eminent domain, which would be cost prohibitive,[98] local and state governments could retreat from the coast. A retreat from the coast could be orchestrated in two ways. First, the federal government could phase out

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96. *See* PHILIPPI, *supra* note 3, at 4-5. Living in certain coastal communities is akin to living on an active volcano: "very scenic and very risky." BUSH ET AL., *supra* note 14, at 12. When the volcano erupts, states and local governments will be forced to expend greater tax dollars to cover damages, and this will likely lead to a new thought process surrounding coastal communities:

> Only when we have learned the economic lessons of the past will we give up spending money on those programs that make it safe and profitable to locate at the rivers' edge, since the end result is only to create greater economic damages. We will instead allow our floodplains to revert back to their natural ecologically healthy states, because it makes good economic sense to do it.

PHILIPPI, *supra* note 3, at 4-5.

97. *See generally* HOWARD KUNREUTHER, DISASTER INSURANCE PROTECTION: PUBLIC POLICY LESSONS 3 (1978). Private risks are those risks that "refer to actions taken by an individual which affect himself but not society." *Id.* Social risks occur "when the general public bears the costs of negative outcomes associated with a particular action." *Id.*

98. *See* Barnhizer, *supra* note 63, at 297.

or decline to provide exceptional services such as subsidized flood insurance. Without the safety net of subsidized flood insurance, property owners would directly bear the risks of living in precarious coastal locations. Because the cost of private insurance would approximate the risks of coastal living, property owners would be forced to internalize the cost of their choices, which could result in many people making alternative decisions.

Second, local or state governments could attempt to retreat from the coast by withdrawing basic services from coastal communities like utilities, roads, and highways. Although private landowners would be allowed to remain in their homes and in their communities, the costs associated with living in these areas would shift from the government to landowners.

The National Flood Insurance Program has existed for over forty years and currently there is nothing to suggest that the political will exists within the federal government to eliminate subsidized flood insurance. The federal government internalizes costs at a much slower rate than local and state governments because its supply of capital from taxes and debt is far greater. For instance, President Bush recently sent Congress a $3.1 trillion budget.[99] Clearly, there are many critics of this level of federal spending, but the average citizen does not internalize these federal costs.

A greater likelihood exists that the American coastline will be redefined by local and state governments.[100] The average citizen is acutely aware of the costs of local and state initiatives.[101] People internalize the costs of government programs through their property taxes. In return, local and state governments reflect their constituencies' sensitivity to taxes and expenditures. The magnitude of coastal destruction in the future and its corresponding costs make it far more likely that local and state governments will be the first to react to these changes.

Local and state governments' attempts to reduce flood and storm related costs and to discourage coastal growth would not be stymied by the continued supply of federal flood insurance subsidies. Property owners would still be permitted to own and maintain their property, but they could

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99. Sheryl Gay Stolberg & Robert Pear, *Bush Presents Budget That Would Increase Deficit*, N.Y. TIMES, Feb. 5, 2008, at A20.

100. *See* Hammer, *supra* note 88; *see also* Noel K. Gallagher, *Voters Fickle on Funding Local Projects; Economic Pressure and Doubts about the Public's Benefit Prompt Many Towns to Reject Referendums*, PORTLAND PRESS HERALD, Nov. 18, 2007, at B1 (stating that many spending measures for infrastructure projects were rejected by voters because of tax implications); William Yardley, *Building Costs Deal Heavy Blow to Local Budgets*, N.Y. TIMES, Jan. 26, 2008, at A1 (describing ways in which local governments are struggling to maintain basic infrastructure in cities and towns).

101. *See generally* Gallagher, *supra* note 100.

no longer depend on local and state governments to provide road repairs, sewer service, or electricity to their property. Regardless of whether federal flood insurance has staying power, local and state infrastructure along the coast may not.

Many interesting legal questions are raised by the collision of property owners' rights with the government's interest in retreating from the coast. One central question relates to the legal basis on which property owners could attempt to recover damages or compensation resulting from the government's changed public policy. Property owners could undoubtedly attempt to recover on various theories of liability, such as promissory estoppel and nuisance. While these claims might have merit and should be explored elsewhere, this Comment specifically analyzes property owners' takings claims in situations where the government withdraws basic services from a coastal community and refuses to rebuild damaged infrastructure.[102]

The outcome of this issue has far reaching implications for property owners, local and state governments, and our coasts. Takings claims, in this context, raise the issue of whether the government can change its public policy for free. If the government can withdraw basic services from endangered coastal communities without having to compensate landowners, then such actions could radically transform the concentration of people who live along the coast.[103] The withdrawal of basic services would provide a substantial disincentive for continued coastal development and would likely lead to the dispersal of many coastal communities. Additionally, a mass exodus from the coast could enable certain coastal areas to return to their "natural state." Governments could potentially purchase land that was previously cost prohibitive and transform vast expanses of coastal land into protected conservation areas. If, however, the government would be required to pay compensation to landowners for takings, then the status quo would likely persist as local and state governments could not afford the overwhelming costs related to compensating each landowner.

To analyze landowners' potential takings claims, this Part first addresses a series of cases in which municipalities refused to extend utilities to

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102. Takings claims arise under the Fifth Amendment, which states that no person shall "be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation." U.S. CONST. amend. V. According to the United States Supreme Court, the Fourteenth Amendment incorporates the Bill of Rights so that it applies to states. WILLIAM A. FISCHEL, REGULATORY TAKINGS: LAW, ECONOMICS, AND POLITICS 65-66 (1995).

103. The withdrawal of basic resources from the coast could be useful in avoiding the problem of "double takes" which have allowed "floodplain developers to 'take' resources from taxpayers" through regulatory takings and flood resources like insurance subsidies. Klein & Zellmer, *supra* note 57, at 1474.

residents.[104] Although service extension cases are factually distinguishable from situations where governments withdraw services, many of the factors used by courts to decide extension cases are analogous. Next, relying on cases where landowners' property has been flooded, this Part explores the merits of landowners' physical takings claims. Then, this Part discusses landowners' takings claims based on a theory of substantial interference.

Finally, this Part examines the ways in which courts may interpret landowners' cases under a regulatory takings framework. This analysis is divided into two subdivisions. First, it evaluates whether *Lucas v. South Carolina Coastal Council* could support landowners' takings claims,[105] then it considers the ways in which the factors used by the Court in *Penn Central Transportation Co. v. City of New York* would affect the takings analysis.[106] Specifically, this Part examines the ways in which a government's actions would influence: (1) the economic value of the landowners' property; (2) the reasonable investment-backed expectations of landowners; and (3) the nature of the government action.[107]

Although certain facts may allow landowners to make persuasive takings claims, this takings analysis suggests that courts are likely to grant governments deference to make important policy determinations regarding coastal development and services.

B. Utility Extension Cases: Courts' Deference to Governments' Public Policy Decisions

1. Overview

Utilities are provided to the public in one of two ways. First, some utilities are provided by municipal corporations that are publicly owned.[108] In these municipalities, the city or town has direct authority and oversight over the utility.[109] In other areas of the country, state legislatures have

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104. Currently, there are no cases on point that address an outcome to this issue.

105. 505 U.S. 1003 (1992).

106. 438 U.S. 104 (1978).

107. *Id.* at 124.

108. MARTIN T. FARRIS & ROY J. SAMPSON, PUBLIC UTILITIES: REGULATION, MANAGEMENT, AND OWNERSHIP 267, 270-71 (1973) ("[T]he extent of public ownership of utilities at both state (including local) and federal levels is generally limited only by public opinion as expressed through legislative bodies, and not by constitutions and courts."). A majority of cities with populations that exceed 5000 people operate municipal water services. *Id*. at 269.

109. *See id.* at 267.

passed statutes that allow private corporations to provide utilities.[110] The process for altering service requirements varies depending on whether services are provided through a government regulated public utility or a municipal operated utility.[111] Despite these differences, courts' analysis of municipal utilities' duty to furnish services is similar to situations where state legislatures alter service requirements for public utilities.[112]

Utility extension cases provide a useful analogy to understand the factors courts may consider when assessing landowners' takings claims against the government for the withdrawal of basic services.[113] These cases

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110. *Id.* at 21, 61-65. Public utilities, which are utilities provided by private businesses generally have two defining characteristics:

> First, they must serve all buyers within their market area without undue discrimination up to the limits of their capacity . . . . Second, public utilities must sell their services at 'reasonable' rates or prices; in application, reasonable prices are prices that will give the utility firm no more than 'reasonable' earnings under prudent management.

Id. at 21.

111. Municipalities retain broad discretion to make determinations concerning the extension of their utilities. *See e.g.*, Wickenburg v. Sabin, 200 P.2d 342 (Ariz. 1948). State legislatures define the parameters regarding service requirements in states where private corporations furnish utilities to residents. *See* 35-A M.R.S.A. § 301 (2002) (stating that Maine public utilities are required to "furnish safe, reasonable and adequate facilities and service"); *see also* R.I. GEN. LAWS § 39-2-1(a) (2007) (requiring "[e]very public utility . . . to furnish safe, reasonable, and adequate services and facilities"); VT. STAT. ANN. tit. 30, § 2801 (2007); 66 PA. CONS. STAT. ANN. § 1406 (2007). States such as New Hampshire, Pennsylvania, and Rhode Island have specific statutory requirements that must exist in order for a public utility to terminate services. N.H. Rev. Stat. § 363-B:1 (2007) (preventing termination of public gas and electric utilities for "any residential service without good cause" and ten days written notice); R.I. GEN. LAWS §§ 39-1.1-1, 39-1.1-2.1 (2007) (preventing public utilities from discontinuing service to households where either all adults are over age of sixty-five or where a person under the age of twelve months is domiciled); 66 PA. CONS. STAT. ANN. §§ 1406, 1503, 1524 (2007) (describing specific factors that authorize a utility to refuse service such as nonpayment, failure to comply with payment agreements, and failure to allow access to meters and service connections).

112. The distinction between municipal operated utilities and public utilities is meaningful in the context of this Comment in so far as it would affect the way in which local or state governments could alter utility services. Municipalities have broad discretion to alter utility services whereas public utilities must follow state laws and administrative regulations. State legislatures, however, have the discretion to amend service requirements and termination provisions. For the purposes of this Comment, I proceed under the assumption that the deference provided to municipalities in providing services is similar to that held by state governments in crafting legislation that affects service requirements.

113. Utility cases are factually distinct from potential takings claims in the coastal context. In utility cases, the government refuses to extend services, but in the coastal context discussed in this Comment, the government would be withdrawing services. Additionally, in utility extension cases the landowners never previously received services whereas in the coastal context the government withdrew pre-existing services.

also illustrate the deference that courts provide to municipal operated utilities to make policy determinations regarding the way in which resources are used. Utility cases suggest that landowners' takings claims against the government for the withdrawal of basic services would be unsuccessful.

2. Municipal Service Extension Cases

The extension of water within municipal boundaries is left to the discretion of the government.[114] This discretion is only restricted in circumstances where the government refuses to provide services that only require ministerial acts.[115] Typically, courts allow municipalities to exercise reasonable discretion to determine whether services are extended so long as municipalities consider either the physical remoteness of the area proposed for expansion or the expense associated with an extension.[116]

Municipalities' authority to make policy determinations is best illustrated by *Lawrence v. Richards*, in which a state court held that a water district was not required to extend water mains to each and every individual

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114. *Wickenburg*, 200 P.2d at 342; Browne v. Bentonville, 126 S.W. 93 (Ark. 1910); Marr v. Glendale, 181 P. 671 (Cal. Dist. Ct. App. 1919); Linck v. Litchfield, 31 Ill. App. 118 (Ill. App. Ct. 1888); Moore v. Harrodsburg, 105 S.W. 926 (Ky. Ct. App. 1907); Lawrence v. Richards, 88 A. 92 (Me. 1913); Schriver v. Mayor & City Council of Cumberland, 181 A. 443 (Md. 1935); City of Greenwood v. Provine, 108 So. 284 (Miss. 1926); Braiser v. Lincoln, 65 N.W.2d 213 (Neb. 1954); Reid Dev. Corp. v. Parsippany-Troy Hills Twp., 107 A.2d 20 (N.J. Super. Ct. App. Div. 1954); Rose v. Plymouth Town, 173 P.2d 285 (Utah 1946).

115. *Wickenburg*, 200 P.2d at 345 (upholding writ of mandamus compelling city to provide services to landowner where burden to city "merely involved the making of an ordinary service connection with existing lines"); *see also Provine*, 108 So. at 286 (stating that if case presented issue where water mains preexisted and only needed to be connected, then "we are inclined to view that the remedy would lie [a writ of mandamus], because the writ would then be for the purpose of compelling the city to perform a duty, a ministerial act or administrative duty, about which it would have no discretion").

116. *Provine*, 108 So. at 285 (holding that city acted within its discretion in refusing to extend water main that was 700 feet from landowner's property because of substantial costs to municipality); *see also Glendale*, 181 P. at 672 (holding that city exercised reasonable discretion in refusing to extend services to landowner whose property was elevated 200 feet beyond the distribution range of city's system); *Harrodsburg*, 105 S.W. at 926 (denying grant of injunction to property owner seeking extension of water mains to remote area within city on grounds that government, rather than courts, are charged with managing city affairs); *Schriver*, 181 A. at 446 (holding that city could not be compelled to extend water mains to property owner where city lacked capacity and finances to complete project); *Rose*, 173 P.2d at 287 (holding that town exercised appropriate discretion in refusing to extend water mains where costs were substantial).

within the water district.[117] The court described parts of the district as containing "scatteringly settled" areas with varying elevations to highlight the absurdity of requiring the water district to provide services to all residents:

> If this contention [made by the plaintiff] has real merit, the consequence is that the trustees, acting for the district, are legally bound to supply water to all inhabitants, no matter how large the cost of the undertaking, now [sic] how small the revenue, and no matter how ruinous and destructive the result might be to the financial ability of the district to carry on its operations. That this contention is not sound is, we think, easily demonstrable.[118]

To prevent a "ruinous and destructive" outcome, the court concluded that the trustees of the water district could "use their judgment and exercise their discretion" in determining when and where services should be extended.[119]

Even in *Braiser v. Lincoln,* where the plaintiff developed his property in reliance on a city ordinance authorizing the extension of water to his property, the state court held that the city had the discretionary authority to repeal the ordinance without destroying the landowner's constitutional property rights.[120] Moreover, the court explicitly rejected the argument that a city ordinance providing for the extension of water mains to the plaintiff's property created an enforceable contract between the plaintiff and the city.[121]

State courts' deferential approach to municipal utility extensions is based on several underlying premises. First, courts believe that extension decisions are best made by legislative or administrative bodies because these democratically elected bodies are connected to the people and able to

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117. *Richards*, 88 A. at 95. The plaintiff, who was seeking a writ of mandamus, argued that he had a vested legal right to water services and that the trustees of the water district were without the authority to exercise their discretion. *Id.* at 94.

118. *Id.* at 95.

119. *Id.*; *see also Harrodsburg*, 105 S.W. at 926 (refusing to grant plaintiff's writ of mandamus against city officials to compel city to extend water mains and electric lines to his property because of discretionary powers vested in city officials to make such determinations).

120. *Braiser*, 65 N.W.2d at 215, 218; *see also* Hollister Park Inv. Co. v. Goleta County Water Dist., 82 Cal. App. 3d. 290, 294 (Cal. Ct. App. 1978) (rejecting land developer's takings claim where city refused to extend new water service connection to property because of water shortage); *Reid Dev. Corp.*, 107 A.2d at 23 (holding that municipality does not have "to take a stake in the speculation" of development of property by extending services to landowner).

121. *Braiser*, 65 N.W.2d at 218.

respond to the public's needs.[122] Second, courts are concerned that the well-being of all residents is threatened by forcing the extension of services to satisfy the needs of a disproportionate few.[123] State courts indicate that municipalities must be given flexibility to determine the way in which tax revenues are spent.[124] A municipality may determine that the forty thousand dollars it would cost to extend a water line is better spent improving roads or repairing schools.[125] Third, courts are reluctant to engage in the act of balancing competing needs because of a belief that governments have greater information and resources to make complex policy decisions.[126] Consequently, decisions in these cases reflect judicial restraint so as not to usurp the governing powers of municipalities.[127]

Most importantly, some utility cases also stand for the proposition that the government may alter its public policy for free even if a landowner has relied on a government service.[128] The courts' holdings in these cases further suggest that citizens have notice that governments frequently alter the course of their public policy and change their laws. Thus, landowners who attempt to recover on a theory of reliance will not prevail.[129]

3. Conclusion

Utilities cases reveal that coastal landowners' takings claims based on the government's withdrawal of services would be dismissed by many state courts. Barring certain facts suggesting bad faith or unreasonableness, courts typically grant governments deference to make policy decisions regarding the extension or withdrawal of basic services from coastal communities. Even claimants who were able to provide facts illustrating

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122. *Harrodsburg*, 105 S.W. at 926 ("The city authorities are on the ground. They live among the people who pay the taxes. They can judge much better than we can as to what the best interest of the city requires.").

123. *See Richards*, 88 A. at 95.

124. *See Harrodsburg*, 105 S.W. at 926.

125. *See id.*

126. *See* City of Greenwood v. Provine, 108 So. 284, 286 (Miss. 1926) (stating that possible extension requires consideration of demand for extension and revenues to be obtained).

127. *Richards*, 88 A. at 94.

128. *See* Brasier v. City of Lincoln, 65 N.W.2d 213, 215, 218 (Neb. 1954); *Hollister Park Inc. Co.* v. Goleta County Water Dist., 82 Cal. App. 3d 290 at 294 (Cal. Ct. App.1978); Reid Dev. Corp. v. Parsippany-Troy Hills Twp., 107 A.2d 20, 23 (N.J. Super. Ct. App. Div. 1954).

129. *See Braiser*, 65 N.W.2d at 215, 218; *see also Hollister Park Inv. Co.*, 82 Cal. App. 3d. at 294 (stating that potential water users do not possess the same rights as existing water users).

a reliance on continued services would be unable to recover compensation according to some courts' decisions. Utilities cases support the argument that either extending or withdrawing services is a policy decision that governments, rather than the courts, have the authority to make.

C. Physical Takings Claims

Coastal landowners could attempt to characterize the government's withdrawal of basic services from the coast as a physical taking. Two key issues would likely influence the success of landowners' physical takings claims. First, landowners would have the burden of proving that the government's withdrawal of services from the coast caused a physical invasion of their land. Second, assuming that landowners could overcome the burden of proving causation, landowners would also need to demonstrate that the government had appropriated their land. A body of case law dealing with physical takings claims and floods indicates that coastal claimants' physical takings claims would likely be resolved in favor of the government.

Any permanent, physical intrusion by the government onto a landowner's property constitutes a per se taking.[130] In *Loretto v. Teleprompter Manhattan CATV Corp.*, the United States Supreme Court focused on two key factors for assessing takings claims: (1) the physical nature of the invasion; and (2) the duration of the invasion.[131] The Court's concern with the invasion of the plaintiff's property, regardless of the extent, related to a belief that to allow a physical invasion of property would be to "empty the [property] right of any value."[132]

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130. Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 441 (1982) (holding state law caused taking by requiring landlords to allow cable companies to place half-inch diameter cables along their buildings); *see also* Lovett v. W. Va. Cent. Gas Co., 65 S.E. 196, 200 (W. Va. 1909) (holding that taking occurred where a gas company laid pipes on plaintiff's property without plaintiff's consent); Sw. Bell Tel. Co. v. Webb, 393 S.W.2d 117, 121 (Mo. Ct. App. 1965) ("We think that to the extent the land is invaded and the owner's proprietary rights in it are taken, the land is taken.").

131. *Loretto*, 458 U.S. at 435; *see also* Hendler v. United States, 952 F.2d 1364, 1376 (Fed. Cir. 1991) (stating that "'permanent' does not mean forever" it can mean "in the language of real property law, an estate for years, that is, a term of finite duration as distinct from the infinite term of an estate in fee simple absolute") (citation omitted).

132. *Loretto*, 458 U.S. at 436. The Court's protection against physical invasions of property appeared to be based on Blackstone's proposition that private property is characterized by one's right to exclude and to control:

> There is nothing which so generally strikes the imagination, and engages the affections of mankind, as the right of property ; [sic] or that sole and despotic dominion which one man claims and exercises over the external things of the world, in total exclusion of the right of any other individual in the universe.

Coastal landowners, who relied on a *Loretto* paradigm to articulate physical takings claims, would likely argue that the government's withdrawal of services allowed for the physical invasion of their property. These arguments would be based on a factual scenario in which claimants' property was flooded and thereby altered as a result of the government's failure to maintain certain flood control devices.

In some instances, landowners could attempt to argue that their cases were similar to other flooding cases because the government's design and creation of drainage systems, pumps, and other watercourses may have altered the landscape to such a degree that their property became especially susceptible to flooding in situations where the government refused to operate its flood control systems.[133] This argument is based on the idea that humans have altered the landscape to such a degree that the cause of coastal flooding could not be characterized as "natural." Coastal claimants' arguments would be limited to the extent that they can persuasively demonstrate that the government's withdrawal of basic services had a causal relationship to their property invasion.[134]

The Supreme Court, along with other state courts, have explicitly distinguished between cases where the government caused intentional flooding and cases where nature is the underlying cause of landowners' permanent physical invasion.[135] In cases where the Supreme Court found

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1 WILLIAM BLACKSTONE, COMMENTARIES ON THE LAWS OF ENGLAND *2; *see also Loretto*, 438 U.S. at 435 (stating that through permanent, physical occupations of another's property the "government does not simply take a single strand from the bundle of property rights: it chops through the bundle, taking a slice of every strand") (quotation marks omitted).

133. *See* Bunch v. Coachella Valley Water Dist., 935 P.2d 796, 797 (Cal. 1997) ("[W]hen a public entity's design, construction, or maintenance of a flood control project poses an unreasonable risk of harm to property historically subject to flooding and causes substantial damage to it, the property owners may recover damages for inverse condemnation . . . ."); *see also* Hamblin v. City of Clearfield, 795 P.2d 1133, 1134 (Utah 1990) ("As a result of these improvements, the natural drainage pattern was altered so that all surface water draining from the subdivision flows toward the Hamblins' property."). A physical takings claim by coastal landowners based on a theory of government alteration of the landscape, while potentially persuasive, would be highly fact specific. It is quite possible that many courts would find these claims to be too attenuated to constitute physical takings.

134. *See* Sanguinetti v. United States, 264 U.S. 146, 149 (1924).

135. *Compare* United States v. Lynah, 188 U.S. 445, 468-69 (1903) (holding that taking occurred where construction of dam impeded natural flow of stream causing permanent flooding over plaintiff's property); Pumpelly v. Green Bay Co., 80 U.S. 166, 177-78 (1871) (holding that government's creation of dam caused continuous flooding of plaintiff's property); United States v. Cress, 243 U.S. 316, 327-28 (1917) (holding that dam caused river waters to rise and permanently invade plaintiff's property); United States v. Dickinson, 331 U.S. 745, 751 (1947) (holding that plaintiff be compensated for taking caused by flooding from government's use of dam to raise river); Hawkins v. City of La Grande, 843

physical takings from flood related incidents, the physical invasion of claimants' property was directly attributable to the government's actions.[136] Thus, when major floods strike, landowners have the burden of proving that their damages were caused by the government.[137] The failure of a government structure to withstand floods, by itself, is insufficient to support a landowner's takings claim.[138] Flooding has been treated by some courts as a superseding cause of all damage, which makes it nearly impossible for landowners to articulate successful physical takings claims.[139] Many coastal landowners would fail to meet the causal requirements for a physical takings claim. Here, the government's contention that landowners would have suffered damages regardless of its decision to withdraw services is supported by the Court's jurisprudence.

P.2d 400, 402 (Or. 1992) (holding that taking occurred where city's discharge of effluent from a sewage treatment plant destroyed plaintiff's crops and killed plaintiff's livestock); *and Hamblin*, 795 P.2d at 1133-34 (holding that plaintiffs may be entitled to compensation for flooding of land caused by city constructed drainage system at nearby subdivision); *with Sanguinetti*, 264 U.S. at 147-48 (denying compensation to plaintiff on grounds that government had not caused the physical invasion of landowner's property); *and* Singleton v. United States, 6 Cl. Ct. 156, 162-63 (Cl. Ct. 1984) (denying compensation to plaintiff whose land was flooded because flooding resulted from a 100-year flood rather than government created dam). These cases illustrate the applicability of the tort concept of proximate causation to takings claims. RICHARD A. EPSTEIN, TAKINGS: PRIVATE PROPERTY AND THE POWER OF EMINENT DOMAIN 47 (1985).

136. *Lynah*, 188 U.S. at 468-69; *see, e.g., Cress*, 243 U.S. at 327-28; *see also Pumpelly*, 80 U.S. at 177-78.

137. *Sanguinetti*, 264 U.S. at 149 ("[I]n order to create an enforceable liability against the Government, it is, at least, necessary that the overflow be the direct result of the structure . . . ."); *see also Singleton*, 6 Cl. Ct. at 163-64 (concluding that extreme flooding provided irrefutable evidence that taking did not occur); *Bunch*, 935 P.2d at 799, 810 (concluding that flood control district was not liable for flood damage where a 300-year flood broke levee and flooded plaintiff's property).

138. *See Sanguinetti*, 264 U.S. at 147 (finding no taking where canal constructed by the government overflowed and flooded plaintiff's property because "[t]he land would have been flooded if the canal had not been constructed"); *see also* Bodin v. Standwood, 901 P.2d 1065, 1066, 1070 (Wash. Ct. App. 1995) (finding no taking where extreme flooding caused city's sewage lagoon to spill over onto plaintiff's property). Using the rationale of *Bunch*, a district that provides flood control services has no affirmative duty to ensure that such services prevent all flooding. *Bunch*, 935 P.2d at 799, 810. When the government is actively providing flood control services, the government's duty is limited to the proper operation of the flood control system. *See id.* at 799, 809. Thus, a government has the ability to choose whether or not to create and operate a flood control system; however, if it operates such a system then it has a duty to ensure that the system functions properly, receives proper maintenance, and is repaired in a timely manner after it is damaged. *See id.* at 799, 808-09.

139. *See Singleton*, 6 Cl. Ct. at 163-64; *see also Bunch*, 935 P.2d at 802.

Even assuming that landowners could overcome the causal component required in physical takings claims involving flooding, the Court has also required that the nature of the flooding "constitute an actual, permanent invasion of the land, amounting to an appropriation of and not merely an injury to the property."[140] Many coastal landowners could not meet the permanent physical invasion standard.[141] The flooding experienced by coastal landowners would most likely be intermittent, which is insufficient to constitute a physical taking because the landowners would retain use and control of their property.[142] In these situations, plaintiffs' legal recourse would appear to arise under a tort theory of negligence rather than a constitutional takings claim.

Additionally, landowners would likely be unable to demonstrate that their entire bundle of property rights had been appropriated by the government. The concept of appropriation has been a central component of courts' physical takings analysis.[143] Courts make determinations concerning appropriation of property based on evidence that reveals the intent of the government's actions.[144] Prima facie evidence against physical appropriations may be established when the government does not manifest intent to usurp a claimant's property rights.[145] It would be difficult for claimants to characterize subsequent flood damage as an appropriation of their land in situations where the government has withdrawn basic services from the coast. Landowners would retain control over their fundamental

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140. *Sanguinetti*, 264 U.S. at 149 (stating that permanent physical invasion of land must amount to "an appropriation of and not merely an injury to the property"); *see also* Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 435 (1982) (stating that "an appropriation is perhaps the most serious form of invasion of an owner's property interests . . . [because] the government does not simply take a single 'strand' from the 'bundle' of property rights: it chops through the bundle, taking a slice of every strand").

141. In some instances a landowner may be able to show that a piece of government property such as a vehicle, utility poll, or building structure was relocated to their property and constituted a permanent physical invasion of their land. In these limited circumstances, landowners may have successful takings claims if the government refused to remove the debris.

142. *Sanguinetti*, 264 U.S. at 149.

143. *See id.*; *see also Loretto*, 458 U.S. at 435.

144. *Compare* United States v. Causby, 328 U.S. 256, 258, 259 (1946) (holding that frequent flights by military aircraft, which caused loud noises and bright lights at night, amounted to a taking because of clear intent by government to occupy airspace above plaintiff's land); *with* Nat'l Bd. of Young Men's Christian Ass'n v. United States, 395 U.S. 85, 92-93 (1969) (concluding that no taking occurred where military briefly occupied plaintiff's property because military's mission was related to protection and preservation of plaintiff's property thereby creating a situation "in which governmental occupation does not deprive the private owner of any use of his property").

145. See *Nat'l Bd. of Young Men's Christian Ass'n*, 395 U.S. at 92-93.

bundle of property rights, including the right to control, use, and exclude others from their property. Indeed, to say that the withdrawal of the government's services from a coastal area amounts to an appropriation of a claimant's property is almost paradoxical because it is unclear what the government would have taken.[146]

1. Physical Takings Conclusion

Coastal landowners would likely be unable to prevail using a physical takings theory. It would be challenging for plaintiffs to argue that their property suffered a permanent physical invasion. Even if one could demonstrate that property was permanently flooded, it would be challenging to prove that the government, rather than nature, was the cause. It would also be difficult to convince a court that the government's purpose in withdrawing basic services from the coast was to intentionally interfere with property rights. Finally, the government's withdrawal of services would not be tantamount to an appropriation of claimants' property. Courts' analysis of physical takings claims reveals a longstanding tension between protecting landowners' sacred bundle of property rights and providing governments with the flexibility to operate.

D. Substantial Interference with Landowners' Relationship to Their Property

1. Overview

Non-regulatory takings claims arise in contexts other than permanent physical invasions of property. A number of state courts have upheld takings claims when the government substantially interferes with plaintiffs' relationship to their property. In these cases, the government's actions often stop short of physically invading a person's property; nevertheless, courts have found that the government has taken a stick from the owner's bundle of property rights. In relying on these cases, coastal claimants could argue, in limited circumstances, that the government's withdrawal of basic services from the coast substantially interfered with their property rights. Ultimately, this argument would likely be rejected by most federal and state courts.

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146. *See Loretto*, 458 U.S. at 435 (discussing what is included in the bundle of property rights).

2. Substantial Impairment: State Court Case Law

Many state courts have found takings where governments' actions eliminate or interfere with landowners' access to their property.[147] Several states have relied upon a "substantial impairment" test to determine whether the government's actions constitute a taking.[148] The substantial impairment test dispenses with the requirement that the government's actions physically alter landowners' property, a requirement that has traditionally been emphasized by federal courts' physical takings analysis.[149] For example, in *Palm Beach County v. Tessler*, the government planned to construct a wall that would block all access to, and visibility of, the plaintiff's beauty salon.[150] The state court concluded that even though there was "no physical appropriation of the property itself," the plaintiff was still entitled to compensation for a taking because of the "substantial loss of access."[151] Similarly, other state courts have focused their attention on the reasonableness and suitableness of landowners' access to their property.[152]

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147. *See* Arizona v. Wilson, 438 P.2d 760, 764 (Ariz. 1968) (holding that taking occurred where State's destruction of landowner's direct access to property was complete); Palm Beach County v. Tessler, 538 So. 2d 846, 849 (Fla. 1989) (holding that substantial loss of access to property constitutes taking despite no physical invasion of property); Harrington v. Sw. Elec. Power Co., 567 So. 2d 731, 733 (La. Ct. App. 1990) (holding that utility pole affecting ingress and egress to landowner's property caused taking because impairment was substantial); Nevada v. Linnecke, 468 P.2d 8, 11 (Nev. 1970) (affirming jury award for landowners because direct access to their property was "substantially impaired" by state's creation of new interstate road); Boehm v. Backes, 493 N.W.2d 671, 675 (N.D. 1992) (holding that closure of street intersection by State was a taking because such action unreasonably impaired landowner's direct access to property); Orcutt v. Town of Richmond, 517 A.2d 1160, 1161 (N.H. 1986) (holding that town's discontinuance of road limiting landowner's frontage on public road was a taking where no other reasonable means of access to property existed); Priestly v. New York, 242 N.E.2d 827, 830 (N.Y. 1968) (awarding damages to landowner after property taken by state made access to property unsuitable); In re County of Rockland, 147 A.D.2d 478, 480 (N.Y. App. Div. 1989) (holding that consequential damages may be awarded if government's action of limiting access to property causes diminution in actual or potential development use); Vallone v. City of Cranston Dep't. of Pub. Works, 197 A.2d 310, 317-18 (R.I. 1964) (awarding landowners severance damages for city's acquisition of sewer easement thereby restricting landowner's use and access of street to access property).

148. *Linnecke*, 468 P.2d at 11 ("We adopt the rule that there is right of action when the highway suffers a substantial change in relation to the property."); *Tessler*, 538 So. 2d at 849; *Harrington*, 567 So. 2d at 733; *Boehm*, 493 N.W.2d at 675.

149. *Compare Tessler*, 538 So. 2d at 849; *and Boehm*, 493 N.W.2d at 675; *with Loretto*, 458 U.S. 419, 441; *and* W. Va. Cent. Gas Co., 65 S.E. 196, 200 (W. Va. 1909).

150. *Tessler*, 538 So. 2d at 847.

151. *Id.* at 849.

152. *Priestly*, 242 N.E.2d at 830; *Orcutt*, 517 A.2d at 1161.

Courts, however, have differentiated between government actions that cause a substantial impairment to property and those actions that merely create a circuitous means of access for landowners.[153]

Relying on a substantial interference theory, coastal claimants could argue that their property rights were inextricably related to their ability to access their land.[154] Moreover, the government's refusal to rebuild infrastructure impaired their ability to both access and use their land, which was equivalent to emptying their property rights of value.[155]

This line of argument may initially sound compelling, but a situation where the government actively alters landowners' ability to access their property is distinguishable from instances where the government declines to maintain preexisting access points for reasons similar to those discussed in the physical takings realm. In the latter situation, the government has neither sought to infringe upon landowners' property rights nor appropriate their land for alternative uses.[156] Similar to municipal utility cases, courts would likely afford governments similar deference to make policy determinations surrounding which roads, bridges, and highways to maintain.[157] Just as governments have the authority to select the roads that get paved or repaired and the potholes that get filled, governments also retain the power to decline to maintain certain roads.[158]

Many coastal claimants would initially be unable to make substantial interference takings claims because they would retain means of ingress and egress to their property following a disaster. These coastal claimants would have to wait for a period of time to elapse until either a natural event destroyed their means of ingress and egress or roads connected to their property fell into such disrepair as to interfere with their access. In both

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153. *See Priestly*, 242 N.E.2d at 830 (concluding that circuitous access to property, while not determinative, diminishes likelihood of a taking); *see also Orcutt*, 517 A.2d at 1161; *In re County of Rockland*, 147 A.D.2d at 480.

154. *See* United States v. Causby, 328 U.S. 256, 265 (1946) (concluding that low flying military planes came "so close to the land that continuous invasions of it affect the use of the surface of the land itself"). Coastal claimants could argue that the government's actions affected their relationship with their property. Just as low flying aircraft created noise and light disturbances that prevented the plaintiff from enjoying his property, plaintiffs in coastal communities could argue that the refusal to rebuild washed-out roads and bridges interfered with their ability to access and use their property. *See id.*

155. *See* Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 436 (1982).

156. *Contra* Sanguinetti v. United States, 264 U.S. 146, 149 (1924); *see also Loretto*, 458 U.S. at 435 n.12.

157. *See e.g.*, Lawrence v. Richards, 88 A. 92, 95 (Me. 1913).

158. *See e.g.*, Moore v. Harrodsburg, 105 S.W. 926 (Ky. Ct. App. 1907) ("The city authorities are on the ground. They live among the people who pay the taxes. They can judge much better than we can as to what the best interest of the city requires.").

situations, costal claimants would face causation challenges that were similar to those presented with physical takings claims.

Lastly, landowners who relied on a theory of substantial interference as the basis of their takings claim would most likely be restricted to bringing their claims in state courts. The United States Supreme Court's takings jurisprudence has not recognized the substantial interference theory in the takings realm as it has been applied by state courts. The potential impediment for coastal claimants in using a substantial interference theory to articulate a state takings claim is that states have the ability to enact new laws or constitutional amendments that redefine the basis of a takings claim.[159] Thus, coastal claimants run the risk that the substantial interference theory could instantaneously evaporate if certain statutes or amendments were enacted.

3. Substantial Impairment Conclusion

A body of state case law has recognized takings claims where an overt government action has substantially interfered with claimants' property rights. The substantial interference theory would likely be unpersuasive to a court in a situation where the government withdrew basic services from the coast because the government's actions would not amount to an appropriation of the landowner's rights. Furthermore, courts have traditionally granted deference to governments to make policy decisions concerning the allocation of government resources.

E. Regulatory Takings

1. Overview

Because coastal claimants' physical takings claims are tenuous, a regulatory takings paradigm could also be used by coastal claimants. Although coastal claimants would be unlikely to prove a regulatory taking under *Lucas v. South Carolina Coastal Council*,[160] those claimants could develop more persuasive takings arguments under the multi-factor test

159. Several states have considered legislation that would limit the scope of eminent domain to prevent its use for the purpose of economic development. *See generally* S.B. 363, 60th Leg., Gen. Sess. (Mont. 2007); L.B. 924, 99th Leg., Gen. Sess. (Neb. 2006); S.B. 2214, 60th Leg., Reg. Sess. (N.D. 2007); S.B. 781, 2007 Gen. Assem., Reconvened Sess. (Va. 2007).

160. 505 U.S. 1003 (1992).

articulated in *Penn Central Transportation Co. v. City of New York*.[161] Despite a few sound legal points, which coastal claimants could make using a regulatory framework, the government would likely prevail. Regulatory takings developed in *Pa. Coal Co. v. Mahon* when the Court held that a state statute prohibiting a coal company from mining anthracite coal was a taking.[162] The Supreme Court reasoned that "[t]he general rule at least is, that while property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking."[163] Since *Pa. Coal*, the Court's takings jurisprudence has developed two types of regulatory takings which are embodied in *Lucas*[164] and *Penn Central Transportation Co.*[165]

2. Lucas and Its Refinements

In *Lucas*, the Court found that a state statute caused a taking because the statute prevented the plaintiff from building any permanent structures on his property.[166] In its holding, the Court defined a new subset of regulatory takings—those which deny a landowner of all economic use of their property.[167] This per se takings theory was premised on the belief that property and value are so interrelated that if property loses all of its value or beneficial use it is nearly the same as losing the property itself.[168] The Court's overarching concern with government regulations that deprive an owner of all economic use of their land is that the property is being used for the public.[169] The *Lucas* per se takings rule was further refined and limited in subsequent decisions by the Supreme Court.[170] Specifically, the Court

161. 438 U.S. 104 (1978).

162. 260 U.S. 393, 412-13 (1922).

163. *Id.* at 415. The statute had gone "too far" because it stripped the coal company of its subterranean rights, which had been negotiated and explicitly stated in a contract. *Id.* at 412.

164. 505 U.S. at 1003.

165. 438 U.S. 104.

166. *Lucas*, 505 U.S. at 1030.

167. *Id.*; *see also* Agins v. City of Tiburon, 447 U.S. 255, 260 (1980); Nollan v. Cal. Coastal Comm'n, 483 U.S. 825, 834 (1987); Keystone Bituminous Coal Ass'n. v. DeBenedictis, 480 U.S. 470, 495 (1987); Hodel v. Va. Surface Mining & Reclamation Ass'n., 452 U.S. 264, 295-96 (1981).

168. *Lucas*, 505 U.S. at 1017.

169. *Id.* at 1018 ("[R]egulations that leave the owner of land without economically beneficial or productive options for its use . . . carry with them a heightened risk that private property is being pressed into some form of public service under the guise of mitigating serious public harm.").

170. *See* Tahoe-Sierra Pres. Council v. Tahoe Reg'l Planning Agency, 535 U.S. 302 (2002) (holding that thirty-two month moratorium on development was not a taking because claimants' land retained some value); *see also* Palazzolo v. Rhode Island, 533 U.S. 606

has emphasized that no economic use, as illustrated in *Lucas*, means "that the categorical rule would not apply if the diminution in value were 95% instead of 100%."[171] Thus, the destruction of one strand in the bundle of property rights, rather than the entire bundle, is insufficient to cause a taking.[172]

Coastal claimants would face two substantial impediments to articulating a valid rationale for the application of *Lucas*. First, a state or local government's withdrawal of basic services from coastal areas and refusal to rebuild damaged infrastructure does not represent a typical regulation. Regulations are usually thought to directly restrict landowners' use of their property. The government's decision to withdraw services from a coastal community places no additional restriction on the way in which plaintiffs can use their property. Therefore, a situation in which the government withdrew basic services or refused to repair damaged infrastructure is distinguishable from *Lucas* where a specific regulation limited the plaintiff's use of his property.[173] The *Lucas* categorical rule cannot apply if no regulation exists.

Even assuming that plaintiffs could somehow convince a court that their rights were impaired by the government's inaction, it would be difficult for plaintiffs to show that the government's refusal to rebuild their infrastructure resulted in the loss of "***all*** economically productive" use of their property.[174] A court would likely find that coastal claimants' land still retained value that was beyond a "token interest."[175] Although a diminution in value may have occurred as a result of a change in the government's public policy, plaintiffs would still be able to sell their property in the real estate market. For example, land trusts or governmental agencies could seek to purchase habitats or create environmental buffer zones. Addition-

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(2001) (holding that denial of development permit was not a regulatory taking because plaintiff's property still had value).

171. *Tahoe-Sierra Pres. Council*, 535 U.S. at 330. The Court has indicated that *Lucas* could apply in circumstances where a landowner retained value that was merely a "token interest." *Palazzolo*, 533 U.S. at 631.

172. *Tahoe-Sierra Pres. Council*, 535 U.S. at 327. The Court has also expressed an unwillingness to apply the *Lucas* standard to claimants' conceptual severance arguments. *Id.* at 332. Although the plaintiffs in *Tahoe* argued under *Lucas* that their property had lost all economic value and beneficial use during a thirty-two month moratorium on development, the Court rejected their conceptual severance argument and concluded that "[l]ogically, a fee simple estate cannot be rendered valueless by a temporary prohibition on economic use, because the property will recover value as soon as the prohibition is lifted." *Id.* at 332.

173. *See Lucas*, 505 U.S. at 1008-09.

174. *Id.* at 1030 (emphasis added).

175. *Palazzolo*, 533 U.S. at 631.

ally, unlike *Lucas*, plaintiffs could still develop and use their property. Even if the government conceded that its refusal to rebuild infrastructure resulted in a substantial loss in property value this would still fall short of the legal standard outlined in *Lucas*. Moreover, the Supreme Court's overriding concern that private property was being "pressed into some form of public service" would be allayed in this scenario because plaintiffs would retain all their original rights to use their property.[176]

A scenario in which the government withdraws basic services from a coastal community does not readily fit under the categorical rule outlined in *Lucas*. Coastal claimants may not be able to demonstrate that the government's actions amount to a regulatory act. Regardless, most coastal claimants could not meet the exceedingly strict standard outlined by *Lucas*.

3. Penn Central: A Multi-factor Approach to Regulatory Takings

Assuming that most coastal landowners would be unable to claim that their property had lost all economic use under *Lucas*, these plaintiffs would likely be able to develop stronger takings claims under *Penn Central*. Under *Penn Central*, the Supreme Court eschewed any "set formula" for determining whether a taking had occurred and instead relied on a multi-factor test to guide its "essentially ad hoc, factual inquiries. . . ."[177] To determine whether the government's statute had caused a taking, the Court considered: (1) the economic impact of the statute or regulation;[178] (2) the reasonable investment-backed expectations of the landowners;[179] and (3)

176. *Lucas*, 505 U.S. at 1018.

177. Penn Cent. Transp. Co. v. New York City, 438 U.S. 104, 124 (1977); *see also Tahoe-Sierra Pres. Council, Inc.*, 535 U.S. at 326-27 (using *Penn Central* multi-factor test to hold that moratorium on development was not a taking); *Palazzolo*, 533 U.S. at 617 (applying *Penn Central* multi-factor test to hold that State's regulations had not caused a taking).

178. *Penn Cent. Transp. Co.*, 438 U.S. at 124. In examining the economic impact of a regulation, the Court acknowledged that diminution in property value caused by a regulation is not a useful way to determine whether a taking has occurred. Pa. Coal Co. v. Mahon, 260 U.S. 393, 413 (1922). This point was emphasized in *Pa. Coal Co.* when the Court stated that "[g]overnment hardly could go on if to some extent values incident to property could not be diminished without paying for every such change in the general law." *Id.*

179. *Penn Cent. Transp. Co.*, 438 U.S. at 124. Simply because a statute may have adversely affected a landowner's future profits does not mean a claimant's reasonable investment-backed expectations have been undermined. *Id.* at 136; *see also* Andrus v. Allard, 444 U.S. 51, 66 (1979). Although the claimant in *Penn Central* lost future profits because the claimant could not make an addition to the preexisting property, the regulation in no way affected the way in which the property had been used "for the past 65 years." *Penn Cent. Transp. Co.*, 438 U.S. at 136.

the character of the government action.[180] Based on the application of these factors, the Court held that a New York City law preventing landowners from building a fifty-story addition to their property did not constitute a taking.[181] The Court rejected the argument that air rights above the plaintiff's property could be conceptually severed.[182] The Court then reasoned that plaintiffs were able to use their land in the same manner as prior to the enactment of the statute.[183]

As was the case with *Lucas*, a court could find that a regulatory takings framework was inapplicable to a factual scenario in which the government had withdrawn basic services because there was no regulation. Assuming, however, that a court used *Penn Central* to analyze plaintiffs' takings claims, plaintiffs may be able to develop persuasive arguments.

a. Economic Impact

Under the economic impact prong of *Penn Central*, coastal claimants' primary line of argument would focus on the diminution of their property value. Coastal claimants could assert that the government's policy of withdrawing basic services from the coast and refusing to rebuild damaged infrastructure caused a diminution in their property value to such an extent as to justify compensation. To further illustrate the economic effects of the government's action on their property, coastal claimants could characterize basic services as inextricably intertwined with their larger bundle of property rights.[184] Thus, they could argue that damage to these property rights reduced the value of their property.

The underlying problem with these arguments is twofold. First, the Supreme Court has been reluctant to hold that a mere change in property value related to a government action constitutes a taking for fear that government would be restricted from ever altering its public policy.[185] Second, one could argue that the only value that has been "taken" from the plaintiffs' property was the value that the government had given to the

180. *Id.* at 124 (stating that the character of the government's action focuses on whether the regulation results in a physical invasion of the landowner's property as compared to an interference that "arises from some public program adjusting the benefits and burdens of economic life to promote the common good").

181. *Id.* at 136.

182. *Id.* at 130.

183. *Id.* at 136.

184. Just as the Court held that air rights could not be conceptually severed in *Penn Central*, plaintiffs could argue that basic services were intricately tied to their larger bundle of property rights and could not be severed.

185. *See Pa. Coal Co. v. Mahon*, 260 U.S. 393, 413 (1922).

plaintiffs' property.[186] Utilities and infrastructure represent goods and services that are provided by governments, which influence property values. Although these services may increase the economic value of property this value is separate and distinct from the inherent value of the property. Public services fall outside the traditional bundle of rights and do not require government compensation.[187] Taken to its logical extreme, if services were treated as part of the bundle of rights, a series of school closures could cause a diminution in property values and require compensation.

Because plaintiffs would still retain value in their property, the economic losses they incurred would represent only the adjusting of benefits for the public welfare.[188]

b. Reasonable Investment-Backed Expectations

Relying on *Penn Central's* second factor of reasonable investment-backed expectations, coastal claimants could generate some of their most persuasive takings arguments. Coastal plaintiffs could present compelling accounts arguing that they purchased and developed their property in the coastal community under the reasonable belief that the government would continue to provide basic services. Moreover, plaintiffs could claim that such services were furnished at the time they purchased the property, and that they moved to the area because it was zoned as an area within the jurisdiction of governmental services. Plaintiffs could also recount the numerous times in which the government had rebuilt storm damaged infrastructure. Finally, plaintiffs could claim that local and state governments encouraged them to purchase and develop coastal property so as to increase and expand the community's tax base. Based on these facts, plaintiffs would assert that the

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186. *See* DONALD HAGMAN & DEAN MISCZYNSKI, WINDFALLS FOR WIPEOUTS: LAND VALUE CAPTURE AND COMPENSATION 15 (1978) (stating that windfalls or betterments enhance property value, but are not related to landowner's actions). A windfall or betterment can be defined as "any increase in the value of land (including the buildings thereon) arising from central or local government action, whether positive, e.g., by the execution of public works or improvements, or negative, e.g., by the imposition of restrictions on other land." *Id.* (quoting ENGLISH EXPERT COMMITTEE ON COMPENSATION AND BETTERMENT, FINAL REPORT, ¶ 260, Cmd. No. 6386 (1942).

187. *Penn Cent. Transp. Co.*, 438 U.S at 130 (rejecting concept of conceptual severance because "'[t]aking' jurisprudence does not divide a single parcel into discrete segments and attempt to determine whether rights in a particular segment have been entirely abrogated").

188. *See id.* at 124, 133 (stating that regulations may have "a more severe impact on some landowners than on others, but that in itself does not mean that the law effects a 'taking'" because governments can promote the public welfare through "adjusting the benefits and burdens of economic life . . . .").

government's sudden decision to deny them services reduced the value of their land and interfered with their reasonable investment-backed expectations.

Coastal claimants could also distinguish their case from *Penn Central* on the basis that if basic services were withdrawn from their communities, they would no longer be able to use their property in the same manner that it had previously been used.[189] Furthermore, coastal claimants would be deprived of reasonable profits from the use of their property; a benefit retained by the plaintiff in *Penn Central* despite the city's law.[190]

The shortcoming of coastal claimants' arguments is that the Supreme Court has been unwilling to find takings in circumstances where a statute may have adversely affected the landowner's future intentions.[191] Coastal claimants' arguments are further weakened if the government can convince a court that public policy is fluid and always evolving in a democratic society. Because the world is not static, public policy must always be ready to adapt to new circumstances and needs. Citizens, including landowners, are aware that the benefits and burdens of society can be adjusted by governments to serve the public welfare.[192] Based on this knowledge and awareness, plaintiffs should not be permitted to claim that the denial of services interfered with their reasonable investment-backed expectations.

In a narrow sense, the government could also argue that its denial of basic services did not prevent people from using their land. Plaintiffs could still inhabit their land, build on their land, and enjoy their land, regardless of whether services were provided. The government would contend that these rights, which were unaffected by the denial of services, represent the core bundle of property rights. Additionally, nothing would prevent landowners from paying a private entity to provide the services that had been withdrawn by the government.

c. The Nature of the Government Action

As long as the government acts reasonably and in good faith in withdrawing basic services from a coastal community, most courts would likely find that the nature of the government's action did not constitute a taking. Thus, the burden would fall upon coastal claimants to demonstrate that the nature of the withdrawal of basic services went beyond merely "adjusting the

189. *See id.* at 136.
190. *See id.*
191. *See id.*
192. *See id.* at 133.

benefits and burdens of economic life to promote the common good."[193] In certain circumstances, coastal claimants may have a compelling argument that the ultimate goal of the government's denial of basic services and refusal to rebuild infrastructure was to depress the real estate market in order to compel landowners to sell their property at reduced prices that were favorable for government acquisition. This argument is plausible because some governments could view the withdrawal of basic services as a means to circumvent the expenses of takings claims and acquire valuable property for public purposes. In these situations, the "underlying fairness rationale" [194] that is explicit in the Takings Clause would be violated because coastal landowners would be unfairly saddled with burdens that ought to be shared collectively by the public.

Some state and federal courts have developed the term "condemnation blight" to describe government actions aimed at reducing property values before formal eminent domain proceedings are instituted.[195] Courts have shown a willingness to compensate plaintiffs where condemnation blight occurs, even when a piece of property is not formally taken.[196]

Actions that may suggest condemnation blight include "the published threat of condemnation, mailing letters and circulars concerning the project to area residents, refusing to issue building permits for improvements coupled

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193. *Id.* at 124.

194. Gideon Parchomovsky, *Takings Reassessed*, 87 VA. L. REV. 277, 293 (2001).

195. W.J.F. Realty Corp. v. Town of Southampton, 351 F. Supp.2d 18, 26, 27 (E.D. N.Y. 2004). Condemnation blight often occurred in the City of New York when the:

> Mayor or his office would make a public pronouncement of the City's plan to renew a deteriorated or slum area, then wait for a number of months for all business and other interests to vacate the area and thereafter file condemnation papers claiming the latter date to be the effective one, with greatly reduced values as a the fair value of the property.

Id. at 26.

196. *Id.*; *see also* Richmond Elks Hall Ass'n v. Richmond Redevelopment Agency, 561 F.2d 1327, 1331 (9th Cir. 1977) (holding that a taking occurred despite Agency's decision to not acquire plaintiff's land because "[a]gency's interference with Elks' property rights was direct and substantial, and that the result of this interference was a significant reduction in the value of the subject property"); Foster v. City of Detroit, 405 F.2d 138, 143, 147 (6th Cir. 1968) (affirming district court's award of compensation to plaintiff where city commenced condemnation activities and then discontinued such activities ten years later); Friendship Cemetery v. Mayor & City Council of Baltimore, 90 A.2d 695, 703 (Md. 1952) (holding that plaintiff's allegations that city's bad faith precondemnation actions, which had led several people to remove bodies from cemetery and discouraged others from purchasing lots, raised question of fact for jury); *In re* Bd. of Educ. of Detroit, 280 N.W.2d 574, 576, 577 (Mich. Ct. App. 1979) (affirming jury award of compensation to landowner whose property's value was substantially decreased by condemnation blight caused by board of education).

with intense building violation inspection, reductions in city services to the area and protracted delay and piecemeal condemnation and razing."[197] Other courts have developed a de facto takings analysis that applies in "exceptional circumstances which substantially deprive him [the landowner] of the use and enjoyment of the property and such deprivation is the immediate consequence of the condemnor's power."[198] The rationale set forth in condemnation blight cases could be used persuasively by coastal claimants in situations where the government's actions manifested an intention to substantially reduce coastal property values for the purposes of government acquisition.

The inquiry as to the nature of the government's actions is fact specific and would vary with each takings case. Nevertheless, the nature of the government's actions would most likely be deemed appropriate in instances where the government had a reasonable purpose or legitimate justification for their actions. A government that withdrew basic services as a means to avoid future storm-related expenditures and protect human life and property would likely pass this deferential test.

Additionally, the government must retain the flexibility to respond to changing external factors like climate change and the will of the people. If courts upheld coastal claimants' takings claims, landowners would forever be entitled to services and governments' public policy would be fixed in time. Although this would protect landowners it would undermine democratic government.

F. Takings Conclusion

Although fact specific, most coastal claimants' takings claims against the government for the withdrawal of basic services and refusal to rebuild damaged infrastructure would be unsuccessful.[199] Coastal claimants'

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197. *In re Bd. of Educ. of Detroit*, 280 N.W.2d at 576.

198. Pa. Dep't of Transp. v. Difurio, 555 A.2d 1379, 1381 (Pa. Commw. Ct. 1989) (internal quotation marks omitted).

199. Although a government's withdrawal of basic services from the coast is unlikely to require compensation to landowners under the Takings Clause, the government's new public policy would likely have certain political costs. In order for the government to discontinue basic services to residents in a coastal community, notice would likely be a minimum prerequisite. Providing people living within these coastal communities with a warning of a future change in public policy would likely comport with the public's sense of fairness and compassion. Notice is associated with a fair opportunity for those living in a vulnerable coastal community to leave. Most importantly, notice suggests that people have a choice and from that choice derives personal responsibility.

Notice represents a political cost to the government's new public policy direction because it requires a certain amount of time to elapse before the intended public policy

strongest contentions for takings claims would arise under theories of substantial interference, interference with reasonable investment-backed expectations, and improper government motive. Intuitively, it seems unfair that longtime coastal landowners could be left to fend for themselves after a sudden withdrawal of basic services without any compensation. From a legal standpoint, however, courts have granted the government deference to craft public policy even if this happens to change peoples' property rights.

The possibilities are endless as to the ways in which a court could try to align these coastal takings cases with more traditional takings jurisprudence. The Supreme Court may adopt a new rule or reemphasize a preexisting rule. Nevertheless, the nature of the government action, as articulated in *Penn Central*, would appear to be central to the outcome of cases under these circumstances. If the government appears to be using its public policy as a backdoor means to acquire property at a reduced price, a court would likely hold that this constituted a taking. If, however, the government is merely altering its public policy in reaction to new external circumstances for the benefit of the public welfare, a court would be less inclined to find a taking.

V. CONCLUSION

Our society is on the verge of a new era in which our conception of the American coastline is likely to change. Financial opportunities, insurance subsidies, and "advancements" in shoreline technology have encouraged massive population growth along the American coastline. Society has created its own "perfect storm" in which a flood or hurricane can inflict devastating and disproportionate harm on a community. Although society has absorbed the costs of coastal communities, climate change and the corresponding costs will serve as the impetus for the development of a new coastal community ethic. This ethic will likely internalize the personal and societal costs of maintaining coastal communities and serve as the catalyst for public policy reform.

State and local governments have only a limited number of ways in which they can respond to the coastal community crisis; they can either: (1) provide the aid necessary to rebuild a community; or (2) they can develop a

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becomes effective. Most notice provisions would likely require governments to cover the costs of rebuilding coastal communities for at least one disaster cycle. Thus, if the government enacted a notice provision immediately following a storm, it would still be responsible for the costs associated with the current disaster.

In some states or municipalities, it may be necessary for the government to provide housing subsidies, job training assistance, and other support services to help those individuals who were affected by the government's new public policy.

new conception of the coast. Both economic and political factors in the near future suggest that the government will choose the latter option. The government's new public policy direction would have political, rather than legal, costs associated with its implementation. With few exceptions, most coastal claimants' takings claims against the government for the withdrawal of basic services would be unsuccessful. Governments' ability to withdraw basic services from coastal communities has potentially far reaching implications that could redefine the American coastline. A mass exodus along the coast could transpire thereby creating numerous possibilities for the way in which coastal lands could be used. The decentralization of populations along the coast could have a significant environmental impact.

Although zoning ordinances, provisions of the NFIA, and environmental regulations represent the traditional tools that have been used to manage coastal communities, this takings analysis suggests another means to regulate coastal communities. States' adoption of a coastal approach that withdraws services from coastal communities will achieve the desired goal of aggressive zoning ordinances and environmental regulations while avoiding legal costs. The withdrawal of services from the coast further provides a powerful disincentive for people to live along the coast. This approach has the potential to break the coastal community lifecycle, save lives, conserve limited resources, and protect coastal environments.