DO Mess With Texas...? Why Rolling Easements May Provide a Solution to the Loss of Public Beaches Due to Climate Change-Induced Landward Coastal Migration

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I. INTRODUCTION

Climate change will have many impacts on our everyday lives, but this paper focuses on a single subset—how both property law and coastal landowners will be forced to adjust to the ocean’s movement inland. This paper explores whether “rolling easements”—a legal instrument often associated with the landmark Texas case of *Severance v. Patterson*—may be implemented in California to ensure public access to beach lands following coastal migration onto private property.

California’s coastline is nearly 850 miles long, and when the undulations of tidal and marshland areas are included that number nearly quadruples to over 3400 miles. Although much of this coastline is undeveloped and preserved as parkland or open space, the value of the view itself and of access to the open water has led to considerable private development of land along the beach. This raises a fundamental policy question for any coastal state:

As communities have discovered the values of attractive waterfront areas, conflicts have arisen as to who will share in the benefits. Will waterfronts become a public asset, a hybrid of a grand promenade and linear park for access and recreational use, or

Coastal lands are extremely valuable, but who owns them? Moreover, when the waterline moves, what impact does that have on ownership of those lands? Finally, how do the effects of climate change on coastlines—both sea-level rise and more frequent and severe storm systems—impact the rights of both public and private individuals to enjoy the benefits of beachfront property?

The Texas Supreme Court faced these questions in the case of *Severance v. Patterson*. In *Severance*, the court assessed whether a sudden landward migration of the beach effected an in-kind migration of a public beach easement that would constitute a taking of petitioner’s property in violation of the Fifth and Fourteenth Amendments to the U.S. Constitution. Texas state law, under the Texas Open Beaches Act (TOBA), has long provided for an easement that moves with the water in order to preserve the public’s

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6. Id.
right to beach access in the state. However, the Severance court held that this type of rolling easement did not apply in the context of sudden changes to the coastline profile brought on by severe storm events (in that case, Hurricane Rita of 2005). Although the court’s holding in Severance limited the application of rolling easements under Texas law, these easements remain a potentially viable legal vehicle for preservation of public access to coastal areas in other states, including California.

As coastal development in California continues to increase, private property rights must be balanced against the public’s right of access and use of these waterfront areas. In many areas of California the beach has both public and private owners. Coastal erosion and sea level rise will continue to create conflicts between these interests. Thus, California will likely be forced to answer the same legal and public policy questions that the Texas courts faced in the Severance case.

This paper explores the viability of rolling easements in California as well as how they might be implemented. California has the opportunity to use rolling easement doctrine to fill the public policy vacuum created by the Severance decision. By ‘messing with Texas’ precedent, California could utilize rolling easements to preserve public access to its beaches in the wake of coastal inundation resulting from climate change.

Determining whether and how rolling easements might be used in California requires an understanding of climate change as a man-made phenomenon and the impacts it has on coastal property. The next sections will outline this critical background, and are followed by a survey of relevant legal doctrines including takings jurisprudence, property law principles and the public trust. This legal context is essential to understanding the feasibility of the rolling easement concept in California.

A. Climate Change

The earth has been steadily warming over the past thirty years as increasing amounts of greenhouse gases (GHGs) are released into the atmosphere. These gases act as a ceiling in the sky, trapping energy—and heat—inside. This process has a warming effect on everything under that

8. Severance, 370 S.W.3d at 732.
9. See id.
‘lid,’ including the ocean, ice and glaciers, landmasses, and the air itself. Although the release of GHGs and this resultant ‘greenhouse effect’ is a normal, even essential element of the maintenance of the earth’s biosphere and ecosystems, in recent history the amount of GHGs released has significantly increased. The scientific community is in near-total consensus that these additional GHG emissions are primarily the result of artificial, human-caused activities.\textsuperscript{10}

The inertia that characterizes climate change and its effects makes attributing responsibility for the phenomenon difficult.\textsuperscript{11} Determining the current rate of GHG emissions—a complicated endeavor when considering all sources and incorporating life-cycle analysis—is a fundamentally different calculation than that required to account for the cumulative level of emissions and their ecological impact. As the Intergovernmental Panel on Climate Change (IPCC) noted nearly fifteen years ago:

\begin{quote}
Inertia is a widespread inherent characteristic of the interacting climate, ecological and socio-economic systems. Thus, some impacts of anthropogenic climate change may be slow to become apparent, and some could be irreversible if climate change is not limited in both rate and magnitude before associated thresholds, whose positions may be poorly known, are crossed.\textsuperscript{12}
\end{quote}

As concentrations of GHGs in the atmosphere increase a larger amount of the sun’s energy is trapped and the earth’s climate responds by getting warmer. However, this energy is not distributed equally among the world’s terrains. Nearly 90\% of the excess energy/heat is stored in the oceans, with most of the remainder leading to melted glaciers and ice caps and sea ice, and only a tiny fraction—around 1\%—warming the air/atmosphere.\textsuperscript{13} As a result, humans are more likely to see the impacts of climate change through physical changes than they are to feel them through warmer ambient temperatures.

### B. Sea-Level Rise

As the oceans absorb increasing amounts of the sun’s energy and heat, and as global temperatures increase, water molecules expand and are joined by a growing volume of melted land ice, leading to sea level rise.\textsuperscript{14}


\textsuperscript{12} Id. at 88.


\textsuperscript{14} See NAT’L RESEARCH COUNCIL, NAT’L ACAD, SEA LEVEL RISE FOR THE COASTS OF CALIFORNIA, OREGON, AND WASHINGTON: PAST, PRESENT, AND FUTURE 1, (2012).
Although sea level rise will not be uniform across regions (owing to differences in coastal depths, receipt of melted glacial ice, and other factors), it is estimated that by the end of the twenty-first century more than 95% of ocean areas will rise, and that some 70% of the world’s coastlines will experience sea level rise within 20% of the global mean.\(^\text{15}\)

Coastal lands are bound on at least one side by the ocean, meaning that as sea level rise moves the water line inland, formerly dry land will be inundated. In low-lying coastal areas, the effect will be amplified, as inland inundation from even minor levels of sea level rise will be significant.\(^\text{16}\)

In particular, regions with extended continental shelves could see the high tide line move 20 to 100 meters inland as a result of a single centimeter of sea level rise.\(^\text{17}\) In areas where private individuals own and have developed the land up to the beach line, rising seas and public access rights are on a collision course with the private property rights of landowners. What was previously private property will be inundated by an ocean that is, by definition, “public.”

C. Changes in Storm Frequency and Magnitude

Climate change will lead to increased storm frequency and severity, though there is no consensus among climate models about whether this will occur along California’s coast.\(^\text{18}\) Storms can vary as a result of the characteristics of the ocean in which they occur, and differences in ocean basins can lead to different climate change-induced effects on storms.\(^\text{19}\) In particular, estimates reveal that the Atlantic Ocean will see more frequent hurricanes, whereas the Pacific Ocean will see stronger storms.\(^\text{20}\) However, even if these predicted effects do not occur, the mere existence of sea-level rise will increase the harm resulting from storm events along the coast as their proximity to human structures and activities grows.\(^\text{21}\)

17. Id. at 1782.
20. Id.
21. Albritton et al., supra note 11, at 1, 8.
II. RELEVANT PRINCIPLES OF PROPERTY LAW

Assessing the potential utility of rolling easements in California requires exploration of fundamental property law concepts. Primary categories of relevant property law include coastal-littoral property law doctrines, takings law and precedent, the public trust doctrine, and state laws governing coastal land use. These legal doctrines will each have unique effects on the way California courts might assess the impacts of sea level rise and increased storm frequency and severity on legal title to coastal lands.

A. Coastal/Littoral Property Law Doctrine

Individual ownership of property is a fundamental part of American jurisprudence. Ownership, use and enjoyment of land along the coast is governed by common law and constrained by other doctrines, including the public trust, land use laws and constitutional takings precedent.

Property that abuts water is known as riparian or ‘littoral,’ meaning property “bordering on the shore; pertaining to the shore of the sea.” Like non-littoral property, which has static and unmoving boundaries, any parcel bound by water may wander, growing or shrinking in size with the waterway’s movement. This riparian dynamic led to the development of the property law principles of ‘accretion’ and ‘avulsion,’ which dictate to whom title belongs depending on the characterization of the water’s movement in both spatial (geographic) and temporal (time) terms.

Henry Philip Farnham’s 1904 treatise *The Law of Waters and Water Rights* thoroughly describes the doctrine of accretion, in explaining *Severance v. Patterson*, as the “gradual and imperceptible addition to the shore of sediment, so that the shore is extended into the water.” Farnham also outlines the opposite “very rare” condition of avulsion as one wherein “a large quantity of land is suddenly added to the shore by its severance bodily from its former location.” The distinction between the two concepts is critical in determining who holds title after a shoreline change. If the shore moves “imperceptibly” the title can change with the water’s movement, but if it moves suddenly, title stays with the original owner.

The treatise further explains that the doctrines of accretion and avulsion attempt to distinguish between a situation where “a sudden disruption of

25. *Id.*
26. *Id.* at 320-1.
a piece of ground from one man’s land to another’s, which may be followed and identified,” and the change resulting, either slowly or rapidly, from floods but which is “utterly beyond the power of identification.” These doctrines and their practical application will prove significant in analyzing the impact climate change and sea level rise will have on private ownership of coastal lands.

Although the rules of accretion and avulsion make sense in the context of water bodies whose movements have a relatively equal likelihood of moving either way, they seem less applicable to the case of oceanfront property facing the continual creep of the waterline in a single direction—inland. An examination of the historical circumstances surrounding the development of these doctrines reveals that it may be appropriate now to depart from them, based on their inapplicability to the facts that characterize coastline movement due to sea level rise.

Professor Joseph Sax was a foremost theorist of water law, natural resources law, and the public trust. Sax has specifically spoken to the question of whether these English common law littoral land principles should apply in the contemporary coastal context. He explains that the doctrines of accretion and avulsion developed when new land resulting from water’s movement was used for livestock grazing, thus the crown “would suffer no harm from the land passing into private ownership.” By contrast, beach submersion and migration resulting from sea level rise creates harm to the public through the loss of access to coastal lands. This fundamental variation in circumstances may indicate a need to re-examine the rules governing littoral land boundaries.

B. Takings Doctrine

Another important principle of property law in coastal land use is the issue of unconstitutional takings. Takings law addresses whether a governmental restriction or prohibition on private land use constitutes a

27. Id. at 321 n.1.
29. See id. at 635.
31. See Byrne, supra note 28, at 633.
32. Id.
taking of private property without just compensation in violation of the Fifth \[^{33}\] and Fourteenth Amendments \[^{34}\] to the U.S. Constitution. Takings claims often arise when government entities act to preserve public access to lands in coastal areas.

Government actions can yield takings claims in two ways. One is by the actual physical occupation of property, such as through eminent domain, and always requires just compensation \[^{35}\]. The second is a ‘regulatory taking’, those regulatory impositions that are “so onerous that [their] effect is tantamount to . . . ouster.” \[^{36}\] There are two types of regulatory enactments: ‘per se takings,’ which eliminate all economic use of the land, and all other regulatory takings \[^{37}\].

Significant jurisprudence has developed surrounding the question of when a regulatory taking requires compensation. In Lucas v. South Carolina Coastal Council the Court held that per se takings required compensation \[^{38}\] unless the regulation at issue essentially codifies a limit on the property’s use that already existed under common law. \[^{39}\] Lucas dealt with the impact of legislation—South Carolina’s Beachfront Management Act—on a private landowner whose property use was limited by the Act. \[^{40}\] Justice Scalia’s majority opinion explains that for regulations prohibiting all economically beneficial use of land (per se takings), “[a]ny limitation so severe cannot be newly legislated or decreed (without compensation), but must inhere in the title itself, in the restrictions that background principles of the State’s law of property and nuisance already place upon land ownership.” \[^{41}\]

The “background principles” that Justice Scalia refers to in Lucas are the common law doctrines of property, contract, and tort. \[^{42}\] Lucas holds that these background principles can form the basis of a defense against a takings claim, and as a result the environmental community is increasingly using this approach as a “shield” in takings cases. \[^{43}\] The Court in Lucas accorded judicial primacy to these “background principles”—or common law rights—of private property holders when weighing them against the

\[^{33}\] U.S. CONST. amend. V.
\[^{34}\] U.S. CONST. amend. XIV, § 1.
\[^{35}\] Peloso & Caldwell, supra note 19, at 62.
\[^{36}\] Id. (citing to Lingle v. Chevron U.S.A. Inc., 544 U.S. 528, 537 (2005)).
\[^{37}\] See Peloso & Caldwell, supra note 19, at 62 (discussing recent Supreme Court decisions on regulatory takings).
\[^{39}\] See id. at 1029–30.
\[^{40}\] See id. at 1008.
\[^{41}\] Id. at 1029.
\[^{42}\] James, L. Huffman, Background Principles and the Rule of Law: Fifteen Years after Lucas, 35 Ecology L. Q. 1, 2 (2008).
\[^{43}\] Id.
public’s rights when it measured the constitutional authority of legislatures to enact such restrictions.44

If a taking is not a ‘per se’ taking, courts evaluate the governmental action in question using the rules outlined in *Penn Central Transportation Company v. New York City.*45 The *Penn Central* analysis requires the courts to weigh a number of factors—the economic impact of the regulation, the character of the governmental action, and the property owner’s reasonable investment backed expectations—to determine if an unconstitutional taking occurred.46 Notably, the burden of proof in the *Penn Central* test is on the private property landowner.47

The Supreme Court has validated property use restrictions proffered by courts.48 In *Stop the Beach Renourishment v. Florida Department of Environmental Protection,* the Court upheld a Florida state beach restoration program that fixed the boundary line between state and private waterfront beach property then added sand onto the state’s submerged lands to preserve the selected boundary.49 The petitioners in that case argued that they had a right to property gains through accretion, and their right had been denied when the state court approved the validity of the beach program.50 Interestingly, although the court did not hold that the beach renourishment program constituted a judicial taking, Justice Scalia’s opinion for four of the justices ruled that state courts are subject to the same takings prohibition as are legislatures.51 This was not an issue in the *Beach Renourishment* case though, as the Court held that the petitioners did not have a superior property right to claim under Florida law that was being taken in the first place, saying their “. . .right to accretions was. . .subordinate to the State’s right to fill.”52

Another important area of takings precedent is the rule regarding development permit requirements laid out in *Nollan v. California Coastal*
Commission\textsuperscript{53} and Dolan v. City of Tigard\textsuperscript{54} The holdings of the two cases are often referred to in combination as the “Nollan/Dolan test.” This test requires that when the government places conditions on the issuance of permits, it must prove that the conditions (1) bear an essential nexus to (Nollan) and (2) rough proportionality with (Dolan) the effects of the activities subject to permitting.\textsuperscript{55} If the government does not make a sufficient showing of both elements, a taking has occurred.

One theory holds that if California had argued that the easement it required of the Nollans was based on the public trust doctrine and the need for access to the ocean, it might have avoided being a taking under the Penn. Central test.\textsuperscript{56} However, given the Nollan court’s novel focus on the practice of ‘exactions,’ it seems unlikely that the Court would have ruled that no taking had occurred, even if the state had made public trust arguments.\textsuperscript{57}

As sea levels continue to rise and inundate greater portions of California’s coastline, the water’s edge will run up to—and eventually over—significant swaths of private property. Previously accessible public beaches will also move upland with the rising water and into areas under private ownership. Any attempt to preserve the public’s access to these lands will surely be met with takings claims and will require a solid legal footing to withstand them.

C. California Takings Law & Jurisprudence

The Tenth Amendment to the U.S. Constitution reserves to the states those powers not explicitly granted to them in the document, including the police power.\textsuperscript{58} Police powers are the states’ authority to act to protect public health, safety and welfare, and are deemed to include the power of land use regulation.\textsuperscript{59} In California, the state constitution delegates significant land use control to local governments,\textsuperscript{60} which work with the various entities listed above in subsection B to regulate land use through their permitting authority. This is a critical function for both state and local governments.

\textsuperscript{53} 483 U.S. 825 (1987).
\textsuperscript{54} 512 U.S. 374 (1994).
\textsuperscript{55} Pidot, supra note 47, at 134.
\textsuperscript{56} Mulvaney & Weeks, supra note 4, at 596, 596 n.67 (citing Sean T. Morris).
\textsuperscript{57} See Alan Romero, Two Constitutional Theories for Invalidating Extortionate Exactions, 78 Neb. L. Rev. 348, 349 (1999).
\textsuperscript{58} U.S. Const. amend. X.
\textsuperscript{60} Id.
Indeed, “[t]he State can no more abdicate its trust over property in which the whole people are interested . . . than it can abdicate its police powers . . .”61

Land use permitting decisions in the state are governed by the Nollan/Dolan test outlined above, as well as other cases further refining the standards and parsing out requirements and limitations regulating coastal land use. The Penn Central factors are used to assess whether a taking has occurred once a court determines that some economic value still exists in the property (thus, not a ‘per se taking’ requiring compensation under Lucas).

Coastal property owners’ use of their property is further limited by another California court case, Avco Community Developers, Inc. v. South Coast Regional Com.62 In Avco, a developer’s project construction timeline overlapped with the passage and enactment of Proposition 20 of 1972, the ballot initiative that created the California Coastal Commission.63 The developer sought an exemption from the Act’s permitting requirements. In this specific case, the grading work had not been complete, and completed grading was a county prerequisite for issuance of a building permit. Although the developer in Avco obtained a grading permit from the county, secured approval of a final tract map, commenced grading, installed subdivision improvements pursuant to county approvals, and spent over $2 million on the project prior to the effective date of the Act, the court denied the exemption.64

The Avco case established the rules for the vesting of coastal development rights. Under Avco, once a developer obtains an actual permit (as opposed to other pre-permit construction or approvals), it has acquired a vested right to complete construction in accordance with the terms of the permit.65 Once the landowner has secured that vested right, the government may not, by virtue of a change in zoning laws, prohibit construction authorized by the permit on which he relied.66 Because the Avco case applied to changes

62. Avco Cmty. Developers, Inc. v. S. Coast Reg’l Comm’n., 553 P.2d 546 (Cal. 1976) (superseded by statute in part, see Cotta v. City & Cty. of San Francisco, 69 Cal. Rptr. 3d 612, 619 n.5 (Ct. App. 2007) (holding that “any change in the rule that a developer has no vested rights in existing zoning must come from the Legislature. Thereafter, the Legislature enacted a statute permitting local governments to freeze zoning early in the development process, before building permits are issued.”)).
63. Avco, 553 P.2d at 546–50.
64. Id.
in zoning laws by governments, it remains to be seen if the same rule would apply to bar the government’s denial of the ability to build on the coast pursuant to a rolling easement once a developer had been issued a permit and thus had a ‘vested right’ to complete construction.

California statute provides another interesting distinction regarding ownership of littoral land changes resulting from accretion, stating that only those arising from “natural causes” accrue to the littoral landowner. Although this code section is limited to land adjacent to rivers and streams, it provides insight into the Legislature’s conception of property rights in the state.

D. Public Trust Doctrine

One critical background principle of California state property law is the Public Trust Doctrine. A part of the common law, the Public Trust Doctrine emanates from ancient Roman law and holds that certain lands, including the sea, are public property held in common in perpetuity. The doctrine states:

By the law of nature these things are common to mankind—the air, running water, the sea, and consequently the shores of the sea. No one, therefore, is forbidden to approach the seashore, provided that he respects habitations, monuments, and the buildings, which are not, like the sea, subject only to the law of nations.

In California the public trust has been held to bar private ownership of the strip of land between the mean low and mean high tide marks, which is determined by averaging the high and low tide levels over 18.6 years. This area is sometimes called the “foreshore” or “wet sand beach.” Conversely, in most states, development has been allowed in the region between the mean high tide line and the vegetation line, sometimes referred to as the “dry sand beach.”

68. Id.
69. Mulvaney & Weeks, supra note 4, at 582 (citing to INSTITUTES OF JUSTINIAN 90 (Thomas Collett Sandars trans., Longmans, Green & Co. ed. 1905)).
70. Peloso & Caldwell, supra note 19, at 57 (citing to Shively v. Bowlby, 152 U.S. 1 (1894); see also Mulvaney & Weeks, supra note 4, at 582–83 (referring to public trust doctrine since English common law after signing of the Magna Charta prohibiting private ownership of beach lands).
71. Peloso & Caldwell, supra note 19, at 57 (citing to Borax Consol. Ltd. v. Los Angeles, 296 U.S. 10, 26–27 (1935)).
73. Id. at xiv. In some states, such as Oregon, the dry beach is public. Stevens v. City of Cannon Beach, 835 P.2d 940, 941 (Or. 1992).
The public trust doctrine was first cited in the 1892 case of *Illinois Central Railway v. Illinois*. In *Illinois*, the Supreme Court held that title through the public trust may not be given away and that states must preserve the public trust. Outlining the government’s role as a trustee on behalf of the public, the Court in *Illinois* stated:

The state can no more abdicate its trust over property in which the whole people are interested, like navigable waters and soils under them, so as to leave them entirely under the use and control of private parties, except in the instance of parcels mentioned for the improvement of the navigation and use of the waters, or when parcels can be disposed of without impairment of the public interest in what remains, than it can abdicate its police powers in the administration of government and the preservation of the peace. In the administration of government, the use of such powers may for a limited period be delegated to a municipality or other body, but there always remains with the state the right to revoke those powers and exercise them in a more direct manner, and one more conformable to its wishes. So with trusts connected with public property, or property of a special character, like lands under navigable waters; they cannot be placed entirely beyond the direction and control of the state.

The public trust, also recognized in California law, holds that beach land below the high tide mark is held in the public trust and must be publicly accessible. Property inland of the mean high tide mark may be privately held, but provisions of state and federal law that control land and water use and development to ensure that the public trust is adequately maintained limit the owner’s use of their land.

**E. Coastal Land Use and Ownership in California**

Federal, state, and local government entities are involved in the control and regulation of coastal development in California. Jurisdiction over coastal land use is governed by a number of statutes, including: The California Coastal Act of 1976, the federal Coastal Zone Management Act of 1972, and state law provisions that regulate coastal use and development.
Act ("CZMA"), the McAteer-Petris Act, and the Suisun Marsh Preservation Act. Coastal land use is also regulated by the California Coastal Commission, San Francisco Bay Conservation and Development Commission ("SFBCDC"), the California Coastal Conservancy, and cities and counties along the coast. Under the authority of these entities and statutory directives, the state of California has developed a federally-approved Coastal Management Program, which holds that the Coastal Commission and SFBCDC manage coastal development, whereas the Coastal Conservancy purchases and protects coastal resources.

These entities’ decisions restricting or prohibiting building and construction or other uses of private property along the beach are often contested as unconstitutional takings of private property without just compensation in violation of the Fifth and Fourteenth Amendments to the U.S. Constitution. As a result, any assessment of the legal options available in California to preserve public access to beach lands in the event of tidal migrations inland must consider the courts’ takings jurisprudence.

III. ARE ‘ROLLING EASEMENTS’ THE ANSWER?

Rolling easements are one possible approach to adapt to rising sea levels. According to the U.S. Environmental Protection Agency ("EPA") Sea Level Rise Project Manager James G. Titus, “there are two primary responses to sea level rise: holding back the sea or allowing the shore to retreat.” In the latter category, rolling easements present a novel legal concept that has been used in an effort to balance the public’s title to coastal land arising from the public trust with private landowners’ right to use and develop their property. “[R]olling easements . . . are policies that allow development, but explicitly prevent property owners from holding back the sea.” The term ‘rolling easement’ has its origins in the common law

82. CAL. PUB. RES. CODE §§ 29000-29612 (West, WestlawNext through 2016 Reg. Sess. laws, Ch. 8 of 2015-2016 2nd Ex.Sess.).
84. Id.
85. U.S. Const. amend. V.
86. U.S. Const. amend. XIV, § 1.
87. Peter Byrne, Rising Seas and Common Law Baselines, 11 VT. J. ENVTL. L. 625, 628 (2010).
89. Id. at 735.
of Texas, was codified in the Texas Open Beaches Act and is explained by James G. Titus as a "public trust that moves with rising sea levels."\textsuperscript{90} In a broad sense, these easements require human activities to yield to naturally migrating shorelines.\textsuperscript{91}

Rolling easements can be a workable solution because they accommodate many of the tests of takings jurisprudence, including that they can be incorporated into reasonable investment-backed expectations and are foreseeable. Rolling easements may also avoid invalidation under the takings analysis of Lucas, as they are based on common law ‘background principles’ of property law such as the public trust.\textsuperscript{92} Viewed in this way, the ‘Lucas rule’ requires the use of each state’s common law of property rights as the baseline from which to determine whether a taking of property has occurred. As a result, what would be a taking in one state would not be a taking in another, making it more difficult to establish legal justifications for the adoption of rolling easements on a national level.

Some take issue with the preferential treatment given to the common law over legislative action\textsuperscript{93} and disagree with the approach taken in Lucas v. South Carolina Coastal Council, wherein the Court used common law property rights as “background principles” that provided a crucial measure of the constitutional authority of legislatures.\textsuperscript{94} The disagreement centers on whether legislative changes and statutory enactments should be vetted against—and held subservient to—the common law, with one advocate of this perspective arguing instead that the question should be only “whether contemporary legislation is fair to all interested parties.”\textsuperscript{95} Although this is an interesting perspective on the appropriate weighing of the legal underpinnings of rolling easements, a review of the options for implementing rolling easements makes clear that when both common law and statute are used in tandem, they present the strongest case for a valid exercise of rolling easement power by states attempting to mitigate the impacts of sea level rise on coastal public lands.

There are several different ways in which the concept of rolling easements may be implemented. Titus’ list includes (1) prohibiting structures that armor against migrating shores, (2) purchasing a property right to take

\begin{itemize}
  \item \textsuperscript{90} Peloso & Caldwell, supra note 19, at 61.
  \item \textsuperscript{91} Titus, supra note 88, at 737.
  \item \textsuperscript{92} Peloso & Caldwell, supra note 19, at 61.
  \item \textsuperscript{93} Byrne, supra note 87, at 627.
  \item \textsuperscript{94} id.
  \item \textsuperscript{95} id.
\end{itemize}
possession of privately owned land whenever the sea rises by a particular amount, (3) including language in a deed that the boundary between public- and privately-owned lands would migrate inland, or (4) passing a statute or ballot initiative clarifying existing property law by stating that all coastal land is subject to rolling easements. These tactics and others all stem from three fundamentally different approaches California could take to establish a legal claim to a rolling easement over a particular parcel: through statute, purchase or donation, or permitting.

IV. ROLLING EASEMENTS IN CALIFORNIA

It is likely that rolling easements could withstand takings scrutiny if enacted in California. The Lucas rule relies heavily on state common law, meaning what would be deemed a taking in one state could be legitimate in another. This makes it helpful to analyze the question both through (1) the different legal bases for establishing rolling easements, and (2) the use of fact-specific hypotheticals.

A. Rolling Easements Through Statute

Texas’ experience in this area serves as a case study in the use of statute to establish a rolling easement. The state of Texas adopted a referendum to amend the state’s constitution to “enshrine the public right of access to the dry sand beach.” This constitutional amendment followed in the state’s tradition that started in statute with the Texas Open Beach Act (TOBA), which states:

[If the public has acquired a right of use or easement to or over an area by prescription, dedication, or has retained a right by virtue of continuous right in the public, the public shall have the free and unrestricted right of ingress and egress to the larger area extending from the line of mean low tide to the line of vegetation bordering on the Gulf of Mexico.]

Although the enactment of a statutory claim of the public’s right of access provides a clear standard, announcing an inviolable right to use privately-owned land threatens a potentially unconstitutional taking of that land without compensation. Titus argues that the statutory option would not be an unconstitutional taking because both the Public Trust Doctrine and the

97. Byrne, supra note 87, at 630.
Doctrine of Erosion\textsuperscript{99} have long held that the beach zone is public property and that it migrates as the shore erodes.\textsuperscript{100}

If the California Legislature enacted a statute similar to the Texas Open Beaches Act, it is possible that ‘rolling easements’ could withstand legal scrutiny under the state’s background principles of property law, as outlined in \textit{Lucas}. Using either the legislative or ballot initiative process (as was used in Texas), California could enact a statute as drafted below:

\begin{quote}
It is the express public policy of the state of California that the public shall have the free and unrestricted right of ingress and egress to the larger area extending from the line of mean low tide/publicly-owned tidelands to the line of mean high tide bordering on the Pacific Ocean, including shifts in the vegetation line resulting from avulsive events or other natural forces. The ecological preservation of, and assurance of continued public access to, these areas are a part of the state’s obligations under the public trust, and are to be maintained and preserved in accordance with that legal obligation.
\end{quote}

In furtherance of this express public policy, the creation, erection or construction of any obstruction, barrier or restraint that interferes with this public easement is deemed unlawful.

\begin{quote}
“In the standard takings analysis the state must first demonstrate that the taking was for a valid public purpose.”\textsuperscript{101} California common law recognizes the public’s title to coastal beach lands through the public trust, codified in the state’s Coastal Act as noted above. As Professor Sax notes, the situation of inundation of previously dry land and the impact on title is properly viewed not as whether or not the individual loses title to nature in a vacuum, but rather as the intersection of two valid claims of title to the land, the individual’s and the state’s.\textsuperscript{102} Thus the question should not only be assessed from the private landowner’s perspective as to whether their property right has or has not been taken, but also from the perspective of the state’s property right in the public trust lands and its obligation to
\end{quote}

\textsuperscript{99} E. Britt Bailey, \textit{From Sea to Rising Sea: How Climate Change Challenges Coastal Land Use Laws} 289, 292 n.29 (2010) (“Erosion and accretion are opposing terms describing the often imperceptible decreasing or broadening of sands along a shoreline . . . Avulsion refers to a sudden and perceptible loss of land abutting water generally caused by a storm-like surge along the shoreline.”) (citing JOSEPH J. KALO ET AL., COASTAL & OCEAN LAW 42 (2nd ed. 2002)).

\textsuperscript{100} Titus, \textit{supra} note 88, at 739.

\textsuperscript{101} Peloso & Caldwell, \textit{supra} note 19, at 76.

preserve and maintain them for posterity. In that case, the private owner’s assertion of their rights via the exclusion of the public and the lack of preservation of the beach could be seen as a taking of the public’s property rights. This view of California’s common law of the public trust supports the ability to enact statutes effecting rolling easements in the state.

Because California has a strong public trust doctrine, and significant statutory authority over coastline management and development, a rolling easement statute may be strongest if its language explicitly states that it is declaratory of existing law. The implication is that it would not create a new claim of right but simply codify an existing one—a background principle—which could prove critical in future takings claims that are assessed under the Lucas rule.

There may be other important legal grounds for public easements in the context of California. The California Coastal Act’s Section 30007.5 states that “conflicts be resolved in a manner which on balance is the most protective of significant coastal resources.” This section could be interpreted as a codification of the state’s public trust doctrine and the state’s obligation to protect public resources against threats including “erosion by private parties.”

Unfortunately, the phrase “erosion by private parties” is not defined, raising a number of compelling statutory interpretation questions in the context of climate change. This “erosion” could be interpreted as a reference to the public trust-based property right, the public’s “title” so to speak, to the beach. Alternatively, it could refer to the erosion of the public trust lands themselves, to actual physical erosion that is caused by “private parties,” or humans. Even if the latter interpretation is correct, it is not clear whether it includes beach movement resulting from sea-level rise and/or more frequent or severe storm events that are the direct and traceable result of global warming. This interpretation begs the question of whether anthropogenic climate change leading to coastline migration through erosion could qualify as “erosion by private parties” for purposes of the protective provisions in the statute. Although it doesn’t appear that these questions have been litigated yet, establishing these connections could greatly solidify the legal basis for the recognition of rolling easements along California’s coastline.

Looking beyond the legal assessment of a possible rolling easement statute, there would be major political impediments to this effort. Any attempt to enact a rolling easement statute in California—either through

103. Id.
104. CAL. PUB. RES. CODE § 30007.5 (West, WestlawNext through 2016 Reg. Sess. laws, ch. 8 of 2015-2016 2nd Ex.Sess.).
the legislative process or through a ballot initiative—would face intense opposition from existing coastal landowners with significant financial resources at their disposal.

B. Rolling Easements Through Purchase or Landowner Donation

Unlike the prior option of affirming the existence of a rolling easement right through statutory declaration and without compensation, the method of paying the landowner (or accepting the landowner’s donation of the easement) provides constitutional safeguards as long as the compensation paid is ‘just’ or sufficient.106 Although this option is a useful one, it is also extremely expensive given the high value of coastal property in California, and is not a practical option beyond areas of significant ecological significance.

C. Rolling Easements Through Permitting

Many entities have jurisdiction over land use along the state’s beaches and must issue permits to those looking to build within or near those protected areas. Coastal land use is regulated by the California Coastal Commission107 and public trust lands including tidelands, submerged lands and the beds of navigable rivers, streams, lakes, bays, estuaries, inlets, and straits are overseen by the state California State Lands Commission.108 These entities oversee coastal development through the issuance of permits and leases, respectively.109 The Coastal Commission recently released its Sea Level Rise Policy Guidance, which recommends the use of rolling easements in its section on Adaptation Strategies, and clarifies that the approaches included under that heading are broader than those featuring recorded leases.110 Thus a rolling easement could be implemented by the Coastal Commission or other entity through a permit, lease or other regulatory device that isn’t an ‘easement’ per se.

106. U.S. CONST. amend. V.
109. Id.
As an example of a different approach that yields a rolling easement-type effect, the Guidance includes an explanation of Section 30253 of the Coastal Act as supporting the Commission’s use of setback requirements for coastal developments.111 Although the requirement ensures continued access to beach land along the shore by limiting development’s encroachment on the water line, footnote 49 takes care to clarify the nature of the approach:

This legal instrument is not an easement but it does provide for ‘planned retreat’ into the future as a site erodes. Once a development is removed, a site may have potential for new development if it is once again set back and restricted against future shoreline protection device construction.112

The ability to include a rolling easement in a coastal development permit is questionable though, given that precedent includes the seminal California Nollan case, wherein the Supreme Court denied the Coastal Commission’s effort to require a beach access easement as a condition of issuing a development permit.113 The Nollan Court didn’t bar the use of easement requirements as permit conditions as a general rule, but it did deny them if they weren’t being required to address the same issue that would provide the Commission with justification to otherwise deny the permit outright.114 In Nollan the Commission had required an access easement based on the claim that the Nollans’ construction blocked the public’s view of the ocean. Had the Commission instead argued that the construction sought to be permitted would have limited beach access, the easement requirement would likely have passed and not been a taking. As a result, land use permitting presents a pathway for implementation of rolling easements, but care must be taken to ensure that the permitting process justification meets the requirements outlined by the Court in Nollan.

The date that the permit was issued could also impact the takings analysis, according to the Penn Central factors. Court precedent holds that the permit holder may not be able to argue a right to develop land or obtain either a permit or waiver based on permitting requirements imposed after the developer has acted in reliance on their individual/private property rights.115 In Avco, the California Supreme Court established rules limiting the ‘vested rights doctrine’ governing development and permits.116 The Court held that a developer did not have a right to finish his or her development that could be based on either the common law or pursuant to

111. Id. at 164–65.
112. Id. at 165.
114. Id. at 837.
116. Id. at 550–57.
the Coastal Zone Conservation Act, a state law enacted after the developer had secured local approvals and completed significant work on the project.117

As a result, properties acquired since that decision should have, under *Penn Central*, distinct investment-backed expectations that there is no ‘vested right’ to develop in these sensitive coastal areas, unless a building permit has been issued (in which case the right is vested). The state can thus utilize its agents’ permitting authority to implement rolling easements along the coast by limiting development and private property uses that inhibit its claim to those lands and avoid related takings claims.

D. Rolling Easements in California Under Specific Conditions

Rolling easements’ validity in California may vary depending on the circumstances of a given case. Although the easements could be implemented using a variety of legal vehicles as previously described, the factual conditions surrounding the coastline’s migration in a given situation could also impact the legal validity of the easement. The two types of climate change-induced coastline migration—sea level rise and storm event-induced erosion—vary in temporal terms that could significantly impact courts’ takings analysis. Assuming that the first *Penn Central* factor, character of government action, is statutory or regulatory (as in the case of enactment of the draft statute) and not a direct physical taking, the timing of the beach’s movement could significantly impact a court’s consideration of the remaining two *Penn Central* factors.

1. Gradual Inundation Through Sea-Level Rise

Could a rolling easement apply in California to coastal private lands inundated over time by climate change-induced sea level rise? Assessing the takings implications of this hypothetical would require use of the *Penn Central* analysis because the denial of armoring or rebuilding permits by the state (as they could violate the state’s rolling easement) would not deprive the property of all economic value since it could conceivably be resided in or used in some fashion up until it was completely inundated.

In the case of sea level rise, the second *Penn Central* factor—the economic impact of regulation or statute—may weigh against a finding of takings because it could be argued as distant and attenuated, since the coastal migration is largely gradual. The third factor—the property owner’s reasonable

117. *Id.* at 801–02.
investment-backed expectations—could also yield support for the rolling easement in the sea-level rise context, due to the foreseeability of the change. The strength of the determination of 'predictability' could vary depending on when property was purchased.\(^\text{118}\) If the state can show that the property owner’s expectations at the time of purchase should have included consideration of sea level rise due to global warming, then a takings claim could be avoided.\(^\text{119}\) However, this outcome is not assured, as in recent years the Supreme Court has held that notice of a regulation, and thus its predictability, does not preclude a takings claim.\(^\text{120}\)

Showing predictability—or foreseeability—is a challenge that could be met in several ways. Existence of a state statute—like the California Coastal Act\(^\text{121}\)—that articulates not only the state’s right to a rolling easement but also the inevitability of climate change-induced global warming and its impact on coastlines through gradual sea level rise would be helpful. Such statutory enactments would put buyers on notice of this condition and help to avoid takings claims when the state later moved to preserve migrating beach lands pursuant to its rolling easement. For example, statutory notice was used in the Texas Open Beach Act to show property owners that their title is subject to loss as a result of natural events.\(^\text{122}\)

Peloso and Caldwell argue that to find that the investment-backed expectations of a property owner are unreasonable, it must be shown that they had constructive notice of the temporal limitations on the land’s title and also that they cannot recover the value of the investment within that timeframe.\(^\text{123}\) The first part of this test can generally be shown through the common law doctrines governing littoral land boundaries (accretion, avulsion and the public trust), dictating that landowners must know that the water boundary of their parcel may change. The second part of the test is more difficult, as it requires a showing “that climate change and its impacts are sufficiently established in the public consciousness such that the property owner should have been aware of the potential that his property would be inundated.”\(^\text{124}\)

Recent developments in California further speak to the potential utility of rolling easements in the context of sea level rise: “Recently, the State Lands Commission has begun adding language to its title settlements and

\(^\text{118}\) Peloso & Caldwell, supra note 19, at 81.
\(^\text{119}\) Id. at 70.
\(^\text{121}\) CAL. PUB. RES. CODE §§ 30000-30900 (West, WestlawNext through 2016 Reg.Sess. laws, Ch. 8 of 2015-2016 2nd Ex.Sess.).
\(^\text{122}\) Peloso & Caldwell, supra note 19, at 100.
\(^\text{123}\) Id. at 81.
\(^\text{124}\) Id.
boundary line agreements to indicate that lands that are currently not part of the public trust, but may be inundated by sea level rise in the future, will be subject to a public trust easement.”125 The fact that state agencies with jurisdiction over coastal development and permitting in California have begun to implement rolling easement-type mechanisms suggests that these legal instruments could withstand takings challenges.

2. Sudden Inundation Through Severe Storm Events

The court in *Severance v. Patterson* bifurcated the state of Texas’ previous recognition of a rolling easement on Gulf Coast beaches by stating that avulsive changes to the coastal profile did not effect a migration of title.126 Although the holding in that case does not apply to California, it reveals some of the legal issues involved in determining the linkage between an individual’s property rights in coastal land and the particular cause of the movement of the beach.

*Severance’s* holding that the particular landowner in the case had not lost his or her title turned in one respect on the statute itself and the Texas OBA’s provision that the public property right must have been based on prescription or dedication, or the retention of a “continuous right of the public.”127 The court held that there was a significant break in time regarding the validity of the public’s right to access the beach because the original land grants in the area contained no mention of public right of access. As a result, the right did not count as “continuous” under the OBA statute, and the rolling easement did not exist.

If California were to enact a rolling easement statute, rolling easements resulting from sudden coastline migration due to storm events could be viewed by courts as a total loss of economic value of the land by the landowner, yielding a ‘per se’ taking under *Lucas*.128 Alternatively, if the court views use of the land up until the occurrence of such a storm as a showing that not all economic value has been lost, the easement would be assessed through the *Penn Central* factors to determine if it effected an

127. TX. NAT. RES. CODE § 61.011(a) (West, WestlawNext through 2015 Regular Session of the 84th Legislature).
unconstitutional taking. The economic impact of the statute, though not complete, would still be far more significant than the economic impact of the loss of property to the easement because of gradual sea level rise. Finally, the reasonable investment-backed expectations are problematic in this hypothetical as it would be nearly impossible for a landowner to recover any investment in property that was covered by the sea.

Grounding a statutory easement in the public trust doctrine—a ‘background principle’ of California property law—could validate the statute and avoid a takings finding. Absent invocation of this ‘per se’ exemption from Lucas, it seems unlikely that a rolling easement statute in California would be effective in the context of severe storm events and resulting avulsive coastline changes.129

V. CONCLUSION

Although their enactment would be complicated by political realities, rolling easements remain a novel and viable policy option to address the erosion of public beach access in California due to climate change. Since only avulsive changes to beach property were at issue in Severance, the primary precedential holding on the rolling easement issue is silent on the legal status of the easements’ application to coastal migration resulting from gradual boundary movement, including through sea-level rise driven by global warming, and is not binding on California courts. Given the frequency of stories of coastline erosion within the state, it is easy to see a test case emerging in the very near future.

Despite the lack of clarity about the best solution to coastline migration, the inevitability of climate change will require approaches that may include the adaptation of longstanding tenets of property law and public policy. Until incidents actually occur and California courts respond, we are left to examine history and its rulings to try to divine answers. As the above analysis illustrates, a carefully drafted statutory conferral of public rolling easements of coastal property in California may withstand judicial scrutiny, but likely only in the context of beach migration due to sea level rise, not storm events. When—not if—the latter situation occurs, California will face a monumental public policy question. We can either sidestep the issue, as Texas did, or we can elect to definitively answer the larger public policy question of who really does—and who should—own the beach in California.

129. See id.