Seawalls and the Public Trust: Navigating the Tension between Private Property and Public Beach Use in the Face of Shoreline Erosion

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I. INTRODUCTION

The ocean never sleeps. All day and night it pounds on the shore, eroding some of the most sought-after and valuable property in the world. Of course, shoreline property owners want to protect their land from erosion, often by constructing seawalls. But these walls can come at a high price; they can cause the beach in front of them to disappear.

Beaches are of vital recreational and commercial value in Hawai‘i, and they are protected by the Public Trust Doctrine. Under the doctrine, all states hold their submerged lands and navigable waters in trust for the public. The doctrine compels Hawai‘i to preserve submerged land, up to the high water mark, for public uses.

When the ocean threatens private buildings, private and public interests in trust lands clash. The State of Hawai‘i and its counties typically allow landowners to armor the shore when the ocean is within a few dozen feet of a habitable structure. By allowing this armoring, which may ultimately destroy Public Trust land, the state is failing in its duty to protect beaches for the benefit of future generations. The state cannot allow armoring that will harm the Public Trust. Rather, to fulfill its fiduciary duty to the public, the state must allow nature to claim land and structures along the shore.

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1. See infra Part II.B.
2. See infra Part II.A.
3. See infra Part IV.A.
4. See infra Part III.
5. See infra Part IV.B.2.
Part II of this comment will describe coastal processes and the effects of seawalls on beaches. Part III will discuss the Public Trust Doctrine, at common law and in Hawai‘i, and Part IV will explore the Public Trust implications of shoreline armoring. Ultimately, the state should allow shoreline owners to use their land while it still exists, but require them to accept that the risk of erosion falls on them. It is a fair way to preserve the rights of the public while still allowing reasonable use of private property.

II. SHORELINE ARMORING CAUSES BEACH LOSS

The only reliable aspect of the shoreline is constant change.\(^6\) Indeed, beaches are "one of Earth's most dynamic environments."\(^7\) Beaches and dunes often depend on each other for survival, as sand constantly shifts among offshore sandbars, the beach, and inland dunes.\(^8\) When a seawall interferes with this system on a chronically eroding beach, that beach will eventually disappear.\(^9\) Thus, shoreline armoring can harm dynamic coastal systems. Unfortunately, as shorelines erode and sea levels rise,\(^10\) coastal landowners in Hawai‘i turn to seawalls to protect their land, despite the well-established detrimental effects of armoring.

A. Beaches and Dunes are Part of an Interconnected System That Naturally Preserves Sandy Beaches

Beaches and landward dunes work together to preserve sand, even if the coast is eroding.\(^11\) Many coastal geologists prefer the term "shoreline retreat" to "coastal erosion" because it indicates that as


\(^7\) Id.

\(^8\) See id. at 11.

\(^9\) Charles H. Fletcher et al., Beach Loss Along Armored Shorelines on Oahu, Hawaiian Islands, 13 J. COASTAL RES. 209, 214 (197); interview with Dr. Charles Fletcher, Chair, Dep't of Geology & Geophysics, Univ. of Haw., in Honolulu, Haw. (Feb. 4, 2008) [hereinafter Interview with Dr. Fletcher 1].


\(^11\) Fletcher, On the Shores, supra note 6, at 1-2.
the shoreline moves landward, sand is not necessarily lost. Often, the beach is just the outer edge of a long layer of sand that extends inland. In such systems, waves across the shore and currents along it create “a three-dimensional sand sharing system.” Accordingly, “impacts to sand resources in one area may echo” throughout the entire system, affecting even distant beaches.

Beaches and dunes store sand when the ocean is calm, and then release it offshore when larger storm waves come in. While offshore, the sand resides in equilibrium. Later, “fair weather waves” move it back onto the beach, and “onshore winds and high tides” move it landward to the dunes. This offshore retreat and inland storage puts beaches in a state of dynamic equilibrium, with sand ebbing and flowing, but always remaining part of a larger quasi-stable system. These sandy beach systems are virtually “indestructible” without human interference. Beach loss occurs when people interrupt this flow.

B. Shoreline Armoring Has Negative Effects on Many Sandy Beaches

With the ocean creeping ever closer to their buildings, many shoreline owners preserve their land with seawalls, despite the harm armoring does to coastal resources. This trend has destroyed beaches. Specifically, “[t]he reliance upon shoreline armoring to mitigate coastal erosion [in Hawai‘i] . . . has instead produced widespread beach erosion resulting in beach narrowing and loss.” Landowners have destroyed twenty-five percent of O‘ahu’s beaches, and 8 kilometers of Maui’s, by armoring. There are three primary contexts in which shoreline armoring will cause beach loss.

12. Id.
13. Interview with Dr. Fletcher I, supra note 9.
14. E-mail from Dr. Charles Fletcher, Chair, Dep’t of Geology & Geophysics, Univ. of Haw. (Apr. 26, 2008, 11:52 HST) (on file with author).
15. Id.
17. Id.; E-mail from Dr. Charles Fletcher, supra note 14.
18. Interview with Dr. Fletcher I, supra note 9.
19. Fletcher, On the Shores, supra note 6, at 4.
20. Fletcher et al., supra note 9, at 214.
22. Interview with Dr. Charles Fletcher, Chair, Dep’t of Geology & Geophysics, Univ. of Haw., in Honolulu, Haw. (Apr. 22, 2008) [hereinafter Interview with Dr. Fletcher II].
First, if a landowner constructs a seawall on a shoreline suffering from chronic long-term erosion, the beach in front of the wall will narrow and disappear. This is because “artificially fixing the shoreline . . . removes upland sand from the sediment budget and reduces sand supplies to the beach”; dunes become impacted behind the armoring, so that they can no longer supply the beach with sand. On a chronically eroding shore, the dunes are a primary source of sand. Hence, when armoring cuts them off from a chronically eroding beach, that beach will be lost.

Second, if a particular beach gains and loses large amounts of sand periodically, it is vulnerable to permanent beach loss from armoring. Specifically, as these shorelines retreat, erosion begins to threaten inland structures. Accordingly, landowners construct walls when the beach is near its minimum width. Under normal circumstances, these beaches would rebound and begin to accrete sand again. However, waves reflect forcefully off of seawalls, effectively doubling the amount of energy on sand in front of them. This increased energy can interfere with accreting sand, and prevent it from returning and stabilizing in front of the wall. This makes these beaches less likely to accrete. Normally, a beach in this context would recover, even after a period of intense erosion. However, with a seawall disrupting energy absorption at the shore, recovery is much less likely. Thus, a landowner armoring to prevent temporary erosion runs the risk of making that erosion permanent.

23. Fletcher et al., supra note 9, at 214.
24. Id. (citing N.C. Kraus, The Effects of Seawalls on the Beach: An Extended Literature Review, 4 J. COASTAL RES., (SPECIAL ISSUE) 4 (1988); O.H. Pilkey & H.L. Wright, Seawalls Versus Beaches, 4 J. COASTAL RES., (SPECIAL ISSUE) 4 (1988)).
25. Interview with Dr. Fletcher I, supra note 9.
26. E-mail from Dr. Charles Fletcher, supra note 14; Fletcher, On the Shores, supra note 6, at 144.
27. Interview with Dr. Fletcher II, supra note 22.
28. Id.
29. Interview with Dr. Fletcher I, supra note 9.
30. Id.; Interview with Dr. Fletcher II, supra note 22.
31. Interview with Dr. Fletcher II, supra note 22.
32. Id.
33. E-mail from Dr. Charles Fletcher, supra note 14; see Fletcher, On the Shores, supra note 6, at 14.
34. Interview with Dr. Fletcher II, supra note 22.
Finally, even steadily accreting beaches may be vulnerable to beach loss caused by armoring. In particular, if accretion on a previously eroded shore has been stable for twenty years, the shoreline landowner may quiet title on the re-accreted land. Once the title in the new land passes to the coastal landowner, he or she may build on it. Then, if the accreted land begins to erode again, the landowner will need to armor to protect the new structures. By armoring, the landowner will cut the accreted sand off from the beach. In turn, this will interrupt the dynamic ebb and flow of the beach-dune system, and will lead to beach narrowing and loss in front of the wall. The public lost much of south Lanikai beach on O'ahu through such a chain of events, and recent data indicates a shift from accretion to erosion may lead to a similar situation on Kailua Beach. Indeed, in an era of sea level rise, such shifts from stable accretion to erosion are likely to become even more common.

Ultimately, once gone, beaches eroded by armoring will not return without further intervention. Specifically, there appears to be no “periodicity to loss and recovery” near seawalls, and accordingly, “presently degraded beach segments are unlikely to experience natural recovery.” Thus, seawalls can destroy the beaches in front of them. However, if landowners allowed their seawalls to degrade, many of the beaches now lost would return.

In Morgan v. Planning Department, the Hawai'i Supreme Court acknowledged that the negative effects of seawalls on coastlines are “of great importance to the people of Hawai'i.” In Morgan, the trial court relied on expert testimony from Dr. Charles Fletcher, Professor and Chairperson of the Department of Geology & Geophysics

35. Id.
36. HAW. REV. STAT § 669-1(e) (Supp. 2007).
37. Interview with Dr. Fletcher II, supra note 22.
38. Id.
39. Id.
40. Id.; E-mail from Dr. Charles Fletcher, supra note 14; see Fletcher, On the Shores, supra note 6, at 16.
41. See EILEEN L. SHEA ET AL., supra note 10, at 32; see also El-Mohamady Eid & Cornelia H. Hulsbergen, supra note 10, at 305.
42. E-mail from Dr. Charles Fletcher, supra note 14.
43. Fletcher et al., supra note 9, at 214.
44. Interview with Dr. Fletcher II, supra note 22.
46. See id. at 181, 86 P.3d at 990.
at the University of Hawai`i at Mānoa. His testimony established that the seawall in question "caused significant adverse environmental effects to the shoreline" and shoreline area, and that armoring had "led to an increased rate of erosion and loss of beach fronting the seawall." The controversy in that case involved a phenomenon known as flanking, in which beaches on either side of a new seawall experience dramatically increased erosion. Specifically, the beach south of the seawall in Morgan originally had only "negligible" erosion. After the wall was constructed, that beach began to erode more than ten feet per year. Although Morgan was not decided on Public Trust principles, the decision made clear the Hawai`i Supreme Court accepts the destructive effects of seawalls, and Hawai`i trial courts can rely on expert testimony from scientists to establish those effects.

Not every seawall causes erosion. In particular, if there is no dune behind the wall, but rather rock or clay, the wall is less likely to cause beach loss because no sand will be trapped behind it. In addition, if a wall is well set back from the shoreline, it is less likely to disrupt accreting sand because no waves reflect off of it. Similarly, if the beach in front of such a wall is accreting rather than eroding, the wall is less likely to harm the beach-dune system because such a system is not immediately dependent on sand impounded behind the wall.

Nevertheless, many beaches in Hawai`i would be negatively affected by armoring. In addition, landowners abutting accreting beaches rarely request permission to armor; generally, owners faced with chronic erosion are the ones who apply to the state or county to build seawalls. The shoreline armoring most valuable to landowners is generally of the type most destructive to beaches. One might assume that the western common law, with its exaltation of private property rights, would resolve this conflict in favor of shoreline property owners. But quite the contrary, under the common law

47. Id. at 183, 86 P.3d at 992.
48. Interview with Dr. Fletcher I, supra note 9.
49. Morgan, 104 Haw. at 184 n.11, 86 P.3d at 993 n.11.
50. Interview with Dr. Fletcher I, supra note 9.
51. Id.; Fletcher et al., supra note 9, at 214.
52. Fletcher et al., supra note 9, at 214; Interview with Dr. Fletcher I, supra note 9.
53. Interview with Dr. Fletcher I, supra note 9.
54. Id.
Public Trust Doctrine, it is the public’s interests in submerged lands that prevail, and the private landowner who must suffer the consequences of erosion.

III. THE PUBLIC TRUST DOCTRINE: ORIGINS AND INTERPRETATION IN HAWAI’I

The Public Trust Doctrine has ancient roots in Hawai’i, both in Roman law, and in traditional Hawaiian custom. In particular, the English common law adopted Roman Public Trust principles, while increasing private ownership of the shore. Later, these common law principles carried over into the colonies, and ultimately to the American states. Now, each state has a slightly different interpretation of the Public Trust. Hawai’i interprets the doctrine broadly and consistently with ancient Hawaiian usage, to include as much land as reasonably possible in its scope.

A. The Basis for the Common Law Public Trust Doctrine

Roman law acknowledged “things which are naturally everybody’s,” including “air, flowing water, the sea, and the sea-shore.” Accordingly, “nobody [could] be stopped from going on to the sea-shore,” where “[t]he sea-shore extend[ed] as far as the highest win-
ter tide.” Thus, in ancient Roman law, private property abutting waterways was subject to the public’s right to the shore.

English common law adopted the Roman principle of Public Trust, and made the dual interests in tidal lands more specific. It divided the title of waters and submerged lands into two sets of rights: the *jus privatum*, or private rights, and the *jus publicum*, the public rights. The King held both, but he had the power to do with the *jus privatum* what he wished, while he held the *jus publicum* only in trust for public benefit. Although English common law tended to increase the rights of private citizens, the *jus publicum* remained the dominant title. Thus, private use could not legally infringe on the public’s rights in submerged lands. Accordingly, any landowner with *jus privatum* title in shoreline property held it “subject to the [jus publicum], and [could] assert no vested right to use those rights in a manner harmful to the trust.” Thus, even at common law, shoreline owners had no right to harm trust land or the public’s ability to use it.

The Public Trust Doctrine persisted as the common law extended into America. The seminal U.S. Supreme Court case *Shively v. Bowlby* described the transition of the doctrine from England to the United States. Specifically, the English claimed what they found in America “by right of discovery,” vesting all “vacant” lands in the King, including submerged lands. After the American Revolution, the rights of the King (not reserved for the union) vested in the colo-

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62. *Id.* at 2.1.3.
63. *Id.*, at 2.1.4 (allowing the public to moor boats and run ropes from trees on the banks of rivers, although “ownership of the banks [was] vested in the adjacent landowners”); Butler, *supra* note 55, at 858.
66. JOSEPH ANGELL, *A TREATISE ON THE RIGHT OF PROPERTY IN TIDE WATERS AND IN THE SOIL AND SHORES THEREOF* 17 (1826) (The policy of the common law was “to assign to every thing capable of occupancy and susceptible of ownership a legal and certain proprietor.”).
70. *Id.* at 14.
nies, including the rights and responsibilities embodied in the dual titles in Public Trust lands. Among the original states, there was "no universal and uniform law" governing the Public Trust. As long as they protected the *jus publicum*, each of the new states had the power to deal with trust lands "according to its own views of justice and policy." Thus, they had the authority to define exactly which lands were held in Public Trust and recognize the scope of the *jus publicum* uses as they saw fit. As new states have joined the union, they have come in on "equal footing" with the original colonies, with the same powers and fundamental duties. Thus, Hawai‘i, with authority equal to the original states, has the power to interpret the Public Trust Doctrine.

**B. Hawai‘i's Interpretation of the Common Law Public Trust Doctrine**

Hawai‘i has the power to define exactly which lands are held in trust, and the scope of the public’s rights in those lands. Consequently, the state has the authority to deal with its Public Trust lands according to its own views of justice and policy, subject to the limitation that its responsibility to protect the *jus publicum* is "inalienable," just as it was for the King at common law. Thus, Hawai‘i holds title to submerged lands, but holds the *jus publicum* as a trustee, with the corresponding trust obligation to protect it.

1. Traditional Aspects of Hawai‘i's Public Trust Doctrine

The Hawai‘i Supreme Court has strongly affirmed the Public Trust Doctrine’s applicability in the state and acknowledged the doctrine’s

71. *Id.* at 14-15.
72. *Id.* at 26.
73. *Id.*
75. Shively v. Bowlby, 152 U.S. 1, 26 (1894).
76. *Id.*; see McBryde Sugar Co. v. Robinson, 54 Haw. 174, 194-95, 504 P.2d 1330, 1343 (1973). (tracing the Public Trust Doctrine from Roman through English to American law and Hawaiian law).
77. *See Phillips Petroleum Co.*, 484 U.S. at 475.
78. MOORE, supra note 64, at 435.
roots in Roman and English law.\textsuperscript{80} Generally, Hawai`i has adopted the common law of England, subject to state and federal constitutional and statutory law, as well as traditional Hawaiian custom.\textsuperscript{81} As early as 1899, the Supreme Court for the Republic of Hawai`i acknowledged the Public Trust principles set out in the U.S. Supreme Court’s \textit{Illinois Central Railroad v. State of Illinois}\textsuperscript{82} decision.

In particular, the Hawai`i Supreme Court followed the rule of \textit{Illinois Central}, that a sovereign’s title in submerged lands:

\begin{quote}
...is different from the title which [it] hold[s] in the public lands which are open to preemption in sale. It is a title held in trust for the people of the state that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein freed from the obstruction or interference of private parties.\textsuperscript{83}
\end{quote}

In addition, the court acknowledged the rule that, “control of property in which the public has an interest cannot be relinquished by transfer . . . . The control of the state for the purposes of the trust can never be lost,” except to promote the public interest in the trust land.\textsuperscript{84} Thus, the State has \textit{no power} to transfer the public interest in trust land, unless that transfer ultimately benefits the public’s use of that land. Just as it was at common law, the public’s rights, or \textit{jus publicum}, is the dominant title in Hawai`i, for “if the public trust is to retain any meaning and effect, it must recognize enduring public rights in trust resources separate from, and \textit{superior to}, the prevailing private interests in the resources at any given time.”\textsuperscript{85} Thus, in Hawai`i and at common law, when public and private interests in trust lands conflict, the public’s needs prevail.

\textsuperscript{80} \textit{In re Water Use Permit Applications}, 94 Haw. 97, 128, 9 P.3d 409, 440 (2000).


\textsuperscript{83} Id. (quoting \textit{Ill. Cent. R.R. Co.}, 146 U.S. at 452).

\textsuperscript{84} Id. (quoting \textit{Ill. Cent. R.R. Co.}, 146 U.S. at 453).

\textsuperscript{85} \textit{In re Water Use}, 94 Haw. at 138, 9 P.3d at 450 (emphasis added); see \textit{Oahu Ry.}, 11 Haw. 717 at *5 (quoting \textit{Ill. Cent. R.R. Co.}, 146 U.S. at 453); see also \textit{Ill. Cent. R.R. Co.}, 146 U.S. at 456 (noting any riparian rights “must be enjoyed in due subjection to the rights of the public”); see also \textit{Angell}, \textit{supra} note 66, at 33-34; \textit{Slade et al.}, \textit{supra} note 55, at 237.
The State of Hawai’i has an inalienable duty to protect submerged lands, particularly against private interests. Specifically, Hawai’i is a “trustee” with “the duty to protect and maintain the trust property and regulate its use.” The state has no power to legislate this duty away, and any attempt to affect, modify, or diminish the state’s control over the *jus publicum* is void. Moreover, Hawai’i may only use its control over submerged land if it “can be done without substantial impairment of the interest of the public.” Thus, though the state has rights in submerged lands, its responsibility to the public dominates those rights. “Just as private trustees are judicially accountable to their beneficiaries for dispositions of the *res*, so the legislative and executive branches are judicially accountable for the dispositions of the public trust.” The state’s first duty is to protect trust assets; ultimately, this is a “categorical imperative and a precondition to all [other] considerations.” In addition, it is not enough to protect them superficially or temporarily, for “[t]he beneficiaries of the public trust are not just present generations, but those to come.” The State of Hawai’i has no power to act in a way that jeopardizes the public’s long-term rights in submerged lands, particularly for the benefit of shoreline property owners, whose private interests are necessarily overridden by the public’s rights.

2. Particularized Aspects of Hawai’i’s Public Trust Doctrine

Every state has the power to interpret essential aspects of the Public Trust Doctrine according to its own notions of justice and policy. Although Hawai’i follows the common law “majority” rule in many aspects of the doctrine, “[g]reat caution . . . is necessary in applying precedents in one State to cases arising in another,” for each state interprets the Public Trust differently. Indeed, Hawai’i’s policy has been to favor “extending to public use and ownership as

94. Shively v. Bowlby, 152 U.S. 1, 26 (1894).
much of Hawaii's shoreline as is reasonably possible."\(^9\) In addition, when applying the common law of real property in Hawai'i, one must take particular care to examine the possible implications of traditional Hawaiian usage, for here, even some of the most entrenched tenets of western real property law, such as the right to exclude, do not carry their traditional weight.\(^9\)

Hawaiian custom had parallels to the common law dual title in trust lands. Indeed, under ancient law, the King of Hawai'i could transfer “[h]is private or feudatory right as an individual participant in the ownership” of a trust resource, a right similar to the \textit{jus privatum}. In contrast, the King could not transfer his “sovereign prerogatives as head of the nation.” Similar to the \textit{jus publicum}, “these prerogatives, powers and duties . . . [h]is majesty . . . [could not] surrender.”\(^9\) Thus, although the foregoing is based on ancient Hawaiian custom, the King’s simultaneous rights in and responsibilities to trust resources echoes the common law Public Trust \textit{jus privatum} and \textit{jus publicum} dichotomy. Ultimately, whether based on common law or traditional Hawaiian custom, the sovereign of Hawai'i, be it the King or the state, has a duty to protect submerged lands, independent of any private interest in the property it may hold.

The Hawai'i Supreme Court interpreted the common law and traditional Hawaiian custom to find the Public Trust at the shoreline is bounded by the highest wash of the waves. In particular, in its 1968 \textit{In re Ashford}\(^9\) decision, the Hawai'i Supreme Court determined that “based on ancient tradition, custom and usage, the location . . . dividing private land and public beaches was along the upper reaches of the wash of the waves.”\(^9\) Five years later, in \textit{County of Hawaii v. Sotomura},\(^10\) the court interpreted \textit{Ashford} as “a judicial recognition of long-standing public use of Hawaii’s beaches . . . that has ripened into a customary right.”\(^10\) Additionally, the \textit{Sotomura} court also


\(^{99}\) \textit{Id}. at 77.

\(^{100}\) Sotomura, 55 Haw. at 182, 517 P.2d at 61.

\(^{101}\) \textit{Id}..
held that, similar to Roman law, in Hawai‘i, the highest tidal water mark is the boundary of the shoreline Public Trust.\(^\text{102}\) Thus, the court in \textit{Sotomura} resolved the boundaries incident to the common law and traditional Hawaiian approaches to submerged lands: each doctrine has the high water mark as its boundary.

In accordance with common law and ancient Hawaiian custom, Hawai‘i has extended the physical scope of the Public Trust lands to its maximum -- to the highest wash of the highest wave of the year. Specifically, the court in \textit{Sotomura} noted that “while the debris line may change from day to day or from season to season, the vegetation line is a more permanent monument, its growth limited by the year’s highest wash of the waves.”\(^\text{103}\) This definition lends a time dimension to shoreline determination, indicating that it is not the current high water mark that delineates the trust lands, but the high water mark \textit{over time} that decides the boundary. Since \textit{Sotomura}, the legislature has codified this time-dependent definition of “shoreline” as “the upper reaches of the wash of the waves, other than storm and seismic waves, at high tide during the season of the year in which the highest wash of the waves occurs.”\(^\text{104}\) In practice, the shoreline in Hawai‘i is the debris line or the vegetation line, whichever is further inland.\(^\text{105}\)

The Public Trust applies to submerged lands just as strongly as it does to the sea, and includes all land touched by waves not caused by natural disasters. Specifically, with tides varying nearly three feet a day during full moon in the winter, much of the “submerged” Public Trust land is often dry and available for public use.\(^\text{106}\) Nevertheless, the fact that it is dry does not diminish its status as trust land, nor the state’s responsibility to protect it.\(^\text{107}\) Indeed, in \textit{Sotomura},

\begin{footnotes}
\item[102] \textit{Compare} JUSTINIAN’S \textsc{Institutes}, \textit{supra} note 60, at 2.1.3 (extending the Public Trust “as far as the highest winter tide”) \textit{with} \textit{Sotomura}, 55 Haw. at 183, 517 P.2d at 63; \textit{see} HAW. REV. STAT. § 205A-1 (1993) (defining shoreline as “[t]he upper reaches of the wash of the waves, other than storm and seismic waves, at high tide during the season of the year in which the highest wash of the waves occurs”); \textit{In re Sanborn}, 57 Haw. 585, 592-93, 562 P.2d 771, 776 (1977).
\item[103] \textit{Sotomura}, 55 Haw. at 182, 517 P.2d at 62.
\item[104] HAW. REV. STAT. § 205A-1.
\item[107] \textit{Sotomura}, 55 Haw. at 183, 517 P.2d at 63.
\end{footnotes}
the Hawai‘i Supreme Court specifically acknowledged that "[i]nd below the high water mark, like flowing water, is a natural resource owned by the state subject to, but in some sense in trust for, the enjoyment of certain public rights." 108 In addition, the court in In re Water Use Permit Applications ("Waihole") specifically indicated that preservation of tidal lands in their natural state is indeed within the scope of the Public Trust. 109 Thus, though only lands touched by waves are included in the Public Trust, the state is still obligated to protect those lands, not just the sea.

Naturally, the boundaries of the Public Trust thus defined are subject to change as the land-sea boundary evolves. 110 For instance, as land accretes, the Public Trust moves seaward. 111 Similarly, avulsion, a sudden extreme seaward shift in oceanfront land, as occurs when lava flows into the sea and hardens, also moves the Public Trust seaward. 112 In contrast, erosion moves the Public Trust inland. 113 Consequently, the Public Trust lands are constantly moving, seaward from accretion or avulsion, or landward from erosion.

Ownership of land at the shore is dynamic as well. Generally, accreted land belongs to the state; however, shoreline landowners may get the benefit of accretion if it is restores previously eroded land. 114 Additionally, in Kobayashi v. Zimring, 115 the Hawai‘i Supreme Court held that avulsion belongs to the state. 116 Though the state holds new land created by accretion or avulsion in trust for the public, only the land subject to tidal influence will be part of the shoreline Public Trust. 117 Similarly, "[w]hen the sea gradually and imperceptibly encroaches upon the land, the loss falls upon the littoral owner, and land thus lost by erosion returns to ownership of the state." 118 Accordingly, property rights once held by a shoreline landowner in fee simple absolute can overnight, with the simple

108. Id. (emphasis added).
110. SLADE ET AL., supra note 55, at 108.
114. See HAW. REV. STAT. § 669-1(e) (Supp. 2007).
116. See generally id.
117. Id. at 737.
118. Sotomura, 55 Haw. at 177, 517 P.2d at 59.
wash of a wave, pass to the state. Thus, as the shoreline changes, private and public rights in the surrounding area change with it.

The basis for the mobile boundary of the Public Trust is that when Hawai'i ceded its land at annexation, it ceded both choate and inchoate property to the union. Specifically, at the time of annexation, "the Republic had an interest in any lands to be added to the Territory of the Hawaiian Islands." Thus, when the Republic ceded "all ... public property of every kind and description ... together with every right and appurtenancy thereunto" to the United States, it ceded its interest in future property of the state as well, including those lands created by avulsion and claimed by erosion. When that right to future land was returned to Hawai'i at statehood, it came back imprinted with the State's common law rights and responsibilities under the Public Trust Doctrine. Hence, any time nature acts to move the shoreline, the Public Trust moves with it, even though the actual land in question was not part of the trust at the moment of statehood.

In general, the Hawai'i Supreme Court has liberally defined the Public Trust Doctrine, extending it to realms removed from the sea. In particular, the court in Waihole held that Hawai'i's Public Trust includes "all water resources without exception or distinction," thus defining the doctrine to include freshwater resources. Waihole also left an opening for an expansive interpretation of Public Trust Doctrine in Hawai'i. The court relied on article XI, section 1 of the Hawai'i State Constitution, which indicates, "all public resources are held in trust by the state for the benefit of its people." The Waihole court explicitly affirmed that the trust thus referred to is the Public Trust. The court then declined to define the "full extent" of the constitution's reference to "all public resources," implying that it is willing to extend the Public Trust beyond tidal lands and fresh water. Later, the Hawai'i Supreme Court reaffirmed this reading of Public Trust into the constitution when, in Morgan v.
Planning Department, it explicitly stated that “[t]he scope of Hawai’i’s Public Trust doctrine is set forth in article XI, section 1 of the Hawai’i Constitution.” Although this liberal interpretation of the doctrine may not be particularly relevant to traditional applications of the Public Trust on the coast, it does give some context to the judicial approach to the doctrine in our state. Indeed, if the Public Trust is to extend to “all public resources,” as held in Waihole and Morgan, then Hawai’i courts are likely apply it firmly at the shoreline, its most traditional setting.

Thus, Hawai’i has embraced the Public Trust Doctrine, both as a common law right and duty of statehood, and as a customary right and duty of the sovereign power of Hawai’i. The doctrine protects not only the ocean water, but also any land that is touched by waves at any point in the year, with few exceptions. It is the state’s duty to protect these submerged lands for the benefit of the public, against all private interests, including those of oceanfront landowners, even if those landowners are poised to lose buildings to the sea.

IV. ANALYSIS

The public has inalienable rights in land destroyed by seawalls. In Hawai’i, wet sand recreation is a protected part of the jus publicum, with which private uses must not interfere. Seawalls that interfere with recreation must be prohibited, notwithstanding current conflicting statutes and practices. Permitting shoreline owners to build, but requiring that they allow their structures to be claimed by the sea if it encroaches upon them, is the most equitable way to resolve the tension between public and private interests at the shore. It gives landowners reasonable use of their property, precludes Fifth Amendment takings claims, and, most importantly, it fulfills the State’s duty to preserve beaches for present and future generations.

A. Beach Loss Substantially Impairs the Shoreline Jus Publicum

The Public Trust Doctrine protects both recreational and commercial uses of wet sand beaches, and those uses suffer when beaches are lost. While the doctrine does not protect every use of trust land,
it can evolve to meet changing public needs. The doctrine did not protect recreation at common law; it protected navigation and commerce. Nevertheless, many states have interpreted the *jus publicum* to include recreation. In addition, recreation is commerce in Hawai‘i, and accordingly, it is a protected use, even under the traditional definition of the *jus publicum*.

Public Trust is a dynamic doctrine. Although it traditionally protected "navigation, commerce and fishing,"[^129] the U.S. Supreme Court has acknowledged the modern rule is "that the States have interests in lands beneath tidal waters which have nothing to do with navigation,"[^130] and that states have the authority to determine the scope of the *jus publicum*.[^131] Ultimately, the Public Trust "evolve[s] in tandem with the changing public perception of the values and uses of waterways,"[^132] and is "sufficiently flexible to encompass changing public needs."[^133] Accordingly, the *jus publicum* is not limited to the traditional Public Trust uses.[^134] Indeed, the United States Supreme Court has validated state interpretations of the doctrine that include such diverse uses as bathing, swimming, recreation, and fishing.[^135] As recreational uses of beaches have become increasingly important to our society, states have begun to protect them as part of the *jus publicum*.

The Public Trust Doctrine in Hawai‘i probably includes recreational use of wet sand areas adjacent to the ocean. For instance, dicta in *Zimring* indicated that the court would include recreation as a Public Trust use; when discussing the trust, the Hawai‘i Supreme Court noted “the State as trustee has the duty to protect and maintain the trust property and regulate its use. Presumptively, this duty is to be implemented by devoting the land to actual public uses, e.g., recreation.”[^136] Thus, the supreme court has clearly contemplated recreation as part of the *jus publicum*. In addition, the court in *Sotomura* recognized that the modern public has a customary right to use Hawai‘i’s beaches; accordingly, that modern right probably includes

[^131]: Id. at 474-75.
[^133]: Id.
[^134]: Id.
[^135]: Phillips Petroleum Co., 484 U.S. at 482.
modern recreational beach use. Ultimately, Hawai‘i appears prepared to include recreation as a protected *jus publicum* use.

Other jurisdictions faced with the issue have interpreted the Public Trust Doctrine to include recreational uses in the *jus publicum*. In particular, in *Matthews v. Bay Head Improvement Association*, the New Jersey Supreme Court relied on the premise that the Public Trust Doctrine includes “bathing, swimming, and other shore activities” to conclude that the public has the right to pass over private property to access the beach for recreation. Similarly, the California Supreme Court based its definition of the *jus publicum* on “public recognition,” thereby including not only recreation, but “the preservation of . . . lands in their natural state,” as uses protected by the doctrine. Accordingly, New Jersey and California have directly included recreational use of the wet sand as part of the *jus publicum*.

Even if recreation was not directly covered by Hawai‘i’s Public Trust Doctrine, it would probably be indirectly protected as commerce. Commerce is a quintessential Public Trust use. Because recreational tourism is such a vital part of Hawai‘i’s economy, recreational use of beaches must be included in the *jus publicum*, even if only indirectly. Specifically, tourism accounts for approximately twenty-five percent of Hawai‘i’s economy, and “the disappearance of Waikiki Beach to erosion could cost the tourism industry nearly 2 billion annually in lost visitor spending, trigger more than 6,000 job losses and shrink state tax revenues by about $125 million

140. *Id.* at 363.
141. *Id.* at 364.
a year.”

Hence, recreational tourism is an essential part of commerce in Hawai‘i. Indeed, the state has already paid a half million dollars to replenish sand on Kūhiō beach in Waikīkī, and Kyoya Hotels and Resorts, owner of the Sheraton Waikīkī, is planning a $3 million dollar sand restoration project for the area in front of their hotel. Kyoya is not spending millions on sand out of good will; on the contrary, the investment is designed to make its hotel more attractive to tourists. Hawai‘i’s economy is dependent on its tourists, and tourists want sand. Hawai‘i’s economy is indeed tied to, and even dependent on, its sand. Ultimately, the Hawai‘i Supreme Court would probably include recreation directly in the *jus publicum*. But even if it did not, the link between beaches and commerce in Hawai‘i is so well established, the court would almost certainly protect recreation indirectly as commerce.

Ultimately, when beaches are lost, both commerce and recreation suffer from the resulting pressure on remaining beaches. Back in 2007, more than seven million people a year were visiting Hawai‘i, causing the Hawai‘i Tourism Authority to comment that the state was, “about at its limits.” Rex Johnson, president and chief executive officer of the authority, was quoted in local papers saying, “[i]f you get beyond [7.5 million tourists a year], you have impacted the residents’ way of life to the point you lose this special thing called aloha . . . . Out of the various marketplaces, we hear the bitches gripes and complaints that aloha is not enough.”

The


146. Interview with Dr. Fletcher I, supra note 9.

147. George Downing, *Displaced to a “T”*, HONOLULU WEEKLY, Apr. 2, 2008, at 6; interview with Dr. Fletcher I, supra note 9.

148. Kim Eaton, *Tourism Authority: Visitor Numbers to Island at Infrastructure Capacity*, WEST HAWAII TODAY, Jan. 12, 2008, available at http://www.westhawaiitoday.com/articles/2008/01/12/local/local01.txt. Recently however, the state’s tourism industry has been declining because of economic downturn; nevertheless, overcrowding on beaches is still an issue, particularly in Waikīkī. Vorsino, supra note 145.

149. Id.
amount of overcrowding from tourism was starting to diminish not only the visitor experience, but also the quality of life for residents. Specifically, as beaches disappear, competition for space on remaining beaches naturally intensifies. In addition, when beach is lost, it prevents lateral access, cutting other beaches off from public access, and further concentrating beach crowds. Overcrowding from beach loss hurts commercial tourism and recreation, and can ultimately diminish the quality of life for residents.

Beach loss fundamentally impairs recreation and commerce, which are protected *jus publicum* uses of trust land. Seawalls can cause beach loss.\(^{150}\) Hence, seawalls can harm the public title in favor of private property, a result contrary to the dominance of the *jus publicum* over the *jus privatum*. Nevertheless, the State of Hawai‘i continues to allow private property owners to armor the shore.

### B. Hawai‘i’s Coastal Zone Management Act Does Not Override the State’s Public Trust Duty and Has Been Inadequate to Prevent Beach Loss

The State of Hawai‘i and its counties have been breaching their duty to protect submerged lands by allowing shoreline armoring under the Hawai‘i Coastal Zone Management Act\(^{151}\) ("CZMA"). The CZMA, the law governing the shore, does not supplant the government’s trust duty. That duty cannot be legislated away. While the CZMA does include language intending to protect beaches, it also allows landowners to armor the shore, and the state and counties continue to permit seawalls under the act. By doing so, the government is failing to protect submerged lands and the *jus publicum* rights therein.

1. The State’s Duty to Protect the Trust is Inalienable and Exists Independently of the CZMA

States may not abdicate their responsibilities to the Public Trust. The U.S. Supreme Court made that clear in *Illinois Central*, which concerned title to a part of Lake Michigan filled and developed by a railroad company.\(^{152}\) The state argued the railroad was “encroaching

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150. *See supra* Part II.B.
upon the domain of the state” by occupying submerged lands.\footnote{Id. at 438.} It made that argument, even though it was the state legislature that granted the railroad “all the right and title of the state in and to the submerged lands” in question.\footnote{Id. at 450.} Ultimately, the court held that, legislation to the contrary notwithstanding, the government had no power to dispose of the submerged land because that land was part of the Public Trust.\footnote{Id. at 453.} “The control of the state for the purposes of the trust,” to protect the \textit{jus publicum}, “can never be lost,”\footnote{Id.} regardless of legislation to the contrary:

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 . . . than it can abdicate its police powers in administration of government and the preservation of peace.\footnote{Id. at 131 (internal punctuation omitted).}

It is an inherent duty of a sovereign American state to protect the \textit{jus publicum} in Public Trust lands. A state cannot surrender this type of duty by deed or legislation.

The Hawai‘i Supreme Court followed \textit{Illinois Central} in \textit{Waihole}, and held the state had to protect the Public Trust, despite legislation partially abdicating that duty. Specifically, the \textit{Waihole} court rejected an argument that the water code “subsumes and supplants whatever common law doctrine of public trust may have previously existed in Hawai‘i.”\footnote{In re Water Use, 94 Haw. at 130, 9 P.3d at 442.} Indeed, the court specifically held that there are powers and duties connected to the Public Trust Doctrine that the state “cannot legislatively abdicate,” and that the Public Trust is “an inherent attribute of sovereign authority that the government ought not, and ergo, cannot surrender.”\footnote{Id. at 131 (internal punctuation omitted).} Thus, under both federal and Hawai‘i law, the state cannot legislate away the power and duties imposed by the Public Trust Doctrine. The State of Hawai‘i remains

\begin{itemize}
\item \footnote{\textit{In re Water Use}, 94 Haw. at 130, 9 P.3d at 442.}
\item \footnote{Id. at 131 (internal punctuation omitted).}
\end{itemize}
duty bound to protect beaches, despite any purported authority to the contrary in the CZMA.

2. There is an Inherent Conflict in the CZMA: It Contains Both a Policy Prohibiting Seawalls and a Process for Obtaining One

The CZMA is full of language intended to protect and preserve coastal resources. Specifically, the objectives of the act include protecting coastal ecosystems, reducing erosion hazards, and protecting beaches. Additionally, the act has specific policies promoting adequate public access along the coast. This should mean that the CZMA prohibits seawalls on chronically eroding shores because they interfere with coastal ecosystems, increase erosion hazards, destroy beaches, and interrupt lateral access. Indeed, the act outright prohibits “private erosion-protection structures” on trust land unless they do no harm to “existing recreational and waterline activities.” All this might imply that a landowner could never build a seawall in Hawai‘i under the CZMA. Nonetheless, the state and counties are failing to implement the policies and objectives of the CZMA by permitting several seawalls per year.

There is a jurisdictional wrinkle in the picture: the state is responsible for permitting from the shoreline seaward, while the counties are responsible from the shoreline inland. In most cases, this leaves virtually all shoreline permitting under the jurisdiction of the counties. However, depending on how far the sea has encroached on private property, landowners may need to build seaward of the shoreline to protect their structures. Thus, if a landowner wants to build a seawall inland of the shoreline, he or she must apply to the county. Conversely, to build seaward of the shoreline, a landowner must apply to the state.

162. See supra Part II.B.
164. Fletcher, On the Shores, supra note 6.
165. Interview with Dr. Fletcher I, supra note 9.
166. See supra Part III.B.2.
Under the CZMA, the state is only directly responsible for the shoreline area seaward; however, its duty to protect Public Trust resources extends to anything that affects them, and cannot be entirely delegated to the counties landward of the shore.\textsuperscript{169} However, the counties still have responsibilities to the trust, as explained by the Hawai‘i Supreme Court in *Kelly v. 1250 Oceanside Partners*.\textsuperscript{170} In that case, seaside development on the Big Island repeatedly caused sediment damage to the adjoining reef. A citizen sued the county, arguing that it had “breached its Public Trust duties” by not preventing the damage.\textsuperscript{171} Although the county argued that only the state has Public Trust duties, the court disagreed, holding the county “has a duty, as a political subdivision of the State, to protect” Public Trust resources.\textsuperscript{172} Accordingly, in Hawai‘i, both the counties and the state are responsible for the protection of the Public Trust: the state generally, and the counties from the shoreline inland.

Despite the protective language in the CZMA objectives and policies section discussed above, some counties have been reluctant to enforce the act. For instance, in *Mahuiki v. Planning Commission*,\textsuperscript{173} the supreme court reviewed a case from Kaua‘i where, despite the County Planning Commission’s “serious misgivings” over a development’s “compatibility with a policy to preserve and protect the environment and resources of the coastal zone,” and their wistful desire to “have the guts” to prevent the damage, the Commission granted it a shoreline Special Management Area development permit under the CZMA. The supreme court later remanded the permit to the Commission to either deny it, or make the required finding that the development would have “no substantial adverse environmental or ecological effect,” or that such an effect would be “clearly outweighed by public health and safety.”\textsuperscript{174} Even though the Commission clearly had the authority to deny the permit based on the project’s adverse environmental effects, it did not have the “guts” to do so. Ultimately, government can be reluctant to deny permits to powerful shoreline landowners, even when the CZMA gives them the authority to do so.

\textsuperscript{169} See supra Part IV.B.1.
\textsuperscript{170} Kelly v. 1250 Oceanside Partners, 111 Haw. 205, 140 P.3d 985 (2006).
\textsuperscript{171} Id. at 220, 140 P.3d at 1000.
\textsuperscript{172} Id. at 226, 140 P.3d at 1006.
\textsuperscript{173} Mahuiki, 65 Haw. at 506, 654 P.2d at 875.
\textsuperscript{174} Id. at 519, P.2d at 882-83.
The actual language of the CZMA fails to draw the hard lines necessary to protect Public Trust resources. For instance, the act requires the counties to “minimize, where reasonable . . . [a]ny development which would reduce the size of any beach . . . [and a]ny development which would reduce or impose restrictions upon public access to tidal and submerged lands [and] beaches.”175 Unfortunately, minimizing beach destruction where reasonable does not achieve the outright prohibition on government sanctioned wet sand beach destruction that the Public Trust Doctrine demands. Restricting public access to tidal and submerged lands is an outright impairment of the jus publicum. Neither the state nor the counties have the power to endorse such impairment, reasonable, minimized, or otherwise.

Additionally, the CZMA process for armoring focuses on the hardship to the landowner if no armoring is allowed, not the impact of armoring on coastal resources. Specifically, a county may grant a variance for a seawall if “shoreline erosion is likely to cause hardship to the applicant if the facilities or improvements are not allowed”176 between the shoreline and the building setback.177 Such a seawall will eventually destroy Public Trust resources if placed on an eroding sandy shoreline. Granted, it is a hardship to watch as one’s shoreline structure is washed away, but that hardship is a private one, and cannot outweigh the public’s hardship as beaches throughout the state are systematically sacrificed for the benefit of private landowners.

Landowners can circumvent the proper process for these variances if they wait long enough to request armoring. A public hearing, which would otherwise be required to grant the variance necessary for a seawall, may be waived if the application is for “[p]rotection of a legal structure costing more than $20,000; provided the structure is at risk of immediate damage from shoreline erosion.”178 This shoreline armoring should never be permitted on a sandy chronically eroding shoreline because such armoring causes beach loss.179 Nevertheless, the state Department of Land and Natural Resources allows property owners with habitable structures threatened by erosion to armor with sandbags without going before the agency’s board for

175. HAW. REV. STAT. § 205A-26(3)(B) to (C) (1993).
179. See supra Part II.
consideration. That board should be carefully considering any request for armoring. It should determine the effects of the armoring on coastal resources, and hear public testimony to determine what the public uses of the shoreline area are, if those uses are protected under the Public Trust Doctrine, and if the proposed armoring will interfere with them. Currently, there is no procedural guarantee that the public’s rights will be considered. The *jus publicum* is the dominant title, and the public’s interests in coastal lands must not only be considered, but must also win out over private ones, even if it means destruction of a structure worth $20,000 or more.

By allowing seawalls under the CZMA, the state and its subdivisions are breaching their duty to protect submerged lands. Although the CZMA purports to protect beaches and coastal resources, its provisions render it ineffective in achieving its objectives and carrying out its policies. This cannot be; the CZMA cannot supplant the state’s Public Trust duty. Seawalls that cause beach loss impair the public’s dominant interest in Public Trust lands in favor of private landowners. Allowing such walls, even under the CZMA, is a clear violation of the Public Trust Doctrine. Ultimately, there is a better way to manage coastal erosion: rather than sacrificing the *jus publicum* to protect private property, allow coastal landowners to use their property while it is still there, but force them to accept that if the sea comes for their buildings, they must let them go.

C. Allowing Shoreline Owners to Build but then Forbidding Harmful Armoring is Preferable to Other Methods of Preserving Beaches

The conflict is clear: the ocean is coming for shoreline structures, and government must respond. Presently, the state and counties are issuing permits for seawalls to protect private property at the expense of the public’s interest in submerged lands, in violation of the Public Trust Doctrine. This cannot continue; it is a blatant breech of the state’s trust duty, and leaves government vulnerable to citizen suits. Dr. Fletcher, an active participant in the

180. *Interview with Dr. Fletcher I, supra note 9; Interview with Dr. Fletcher II, supra note 22.*

181. *See Eileen L. Shea et al., supra note 10, at 32; see also El-Mohamady Eid & Cornelis H. Hulsbergen, supra note 10, at 305; see supra Part II.*

182. *See, e.g., Kelly v. 1250 Oceanside Partners, 111 Haw. 205, 140 P.3d 985 (2006).*
coastal erosion conversation, has suggested increased shoreline set-
backs and a mitigation fund paid into by landowners when their
seawalls destroy beaches as possible approaches to the issue.\textsuperscript{183} Although this desire to preserve beaches in a way fair to landowners is
laudable, shoreline setbacks and mitigation funds are ultimately un-
workable. A solution that strikes the proper balance between private
and public interests allows landowners to use their land while it still
exists, but requires them to let their land and buildings go if the
shoreline encroaches upon them.

1. Shoreline Setbacks Leave Government Vulnerable to Fifth
Amendment Takings Claims and Deny Landowners Use of
Otherwise Developable Property

Substantial setbacks for shoreline development are one popular an-
swer to the problem of shoreline erosion. For instance, in Maui
County, the required setback for coastal buildings is at least twenty-
five feet plus fifty times the annual rate of erosion.\textsuperscript{184} Thus, on a
cost eroding two feet a year, the setback is at least one hundred and
twenty-five feet. Kaua'i has adopted a similar scheme, requiring a
setback of forty feet plus seventy times the annual rate of erosion.\textsuperscript{185}
Both rules have exceptions allowing smaller setbacks for shallow
lots.\textsuperscript{186} Local property rights advocate and Honolulu attorney
Robert Thomas has criticized both schemes, and hinted that if the
setbacks are not applied "carefully," government would be facing
Fifth Amendment takings claims.\textsuperscript{187} Although the setback approach

\textsuperscript{183} Interview with Dr. Fletcher I, supra note 9.
\textsuperscript{184} Maui Dept. of Planning, Shoreline Rules for the Maui Planning Comm'n §
12-203-6 available at http://www.co.mau.hi.us/documents/Planning/CZMP/SSA
\textsuperscript{%} 20Rules.PDF (last visited Feb, 13, 2009).
\textsuperscript{185} Jan TenBruggencate, New Kauai Shoreline Erosion Bill Among Nation's
Most Conservative, http://raisingislands.blogspot.com/2008/02/new-kauai-
\textsuperscript{186} Maui Shoreline Rules § 12-203-6(b).
\textsuperscript{187} Posting of Robert Thomas to InverseCondemnation.com, Aggressive New
Kauai Shoreline Setback Ordinance Adopted, http://www.inversecondemnation.com/inversecondemnation/2008/02/aggressive-
new.html (Feb. 29, 2008); Posting of Robert Thomas to InverseCondemna-
maui_.html (Oct. 6, 2008).
has otherwise met with community support, and is clearly envisioned in the CZMA, Mr. Thomas has a point.

Depending on how government applies shoreline setbacks, they have the potential to be compensable as either total or partial regulatory takings. Under the current Supreme Court interpretation of the Fifth Amendment of the U.S. Constitution, when regulation of land goes “too far,” the government has taken property, which entitles the landowner to just compensation. A regulation limiting the use of land can be either a “total” or “partial” regulatory taking, either of which leaves the government owing just compensation to the landowner.

Aggressive setbacks may be challenged as total regulatory takings. A total regulatory taking occurs when regulation has precluded all economically viable use of a property. For instance, the seminal U.S. Supreme Court total regulatory taking case Lucas v. South Carolina Coastal Council was a challenge to an erosion-based shoreline setback, which left a landowner’s parcel in a zone where legislation prohibited anything more than small walkways or decks. There, the Supreme Court imposed a “categorical rule” that when regulation precludes “all economically beneficial uses” of a parcel of land, the owner must be compensated, regardless of how vital the regulation is to public health and safety. Although the trial court found the regulation made the landowner’s lots economically useless, the Supreme Court did not require the government to compensate Lucas; it remanded the case to the lower court to determine if an exception to the rule applied. Such an exception exists if the owner never had any right to develop in the way that the regulation precludes; that is, if the regulation is a codification of a “background principle” of property law, such as nuisance, custom, or indeed, Public Trust. However, when the Court remanded Lucas,

188. See, e.g., TenBruggencate, supra note 185.
191. U.S. CONST. amend. V.
193. Id.
194. Id. at 1008-9 n.2.
195. Id. at 1018.
196. Id. at 1026.
197. Id. at 1018.
198. Id. at 1029.
199. See id.
it noted that "[i]t seems unlikely that common-law principles would have prevented the erection of any habitable or productive improvements on petitioner's land." Thus, courts may be reluctant to find a Lucas exception to a total regulatory taking, even if the circumstances surrounding the regulation implicate background principles of state law.

Alone, Public Trust principles will probably be insufficient to defend government against most total takings claims based on shoreline setbacks. Shoreline setbacks, if they are so deep and restrictive that they prevent building on an entire parcel, could preclude all economically beneficial uses of land. For instance, because both the Maui and Kaua'i setback schemes have categorical minimums, they could be challenged as total regulatory takings when applied to extremely shallow lots. Although nuisance from tsunami or hurricanes causing parts of ocean-front housing to dislodge and damage inland property is probably a viable defense to total takings claims based on moderate setbacks, a court might not find those arguments convincing if beach loss is the true motive behind the ordinance, as could be argued from a more aggressive erosion-based rule. Ultimately, although Public Trust is a powerful doctrine, at the coast its force diminishes exponentially as the distance from the shoreline increases. To defend a setback based on the Public Trust, government will have to establish how inland development hurts the jus publicum. Thus, the farther inland the setback, the more difficult it will be to defend using Public Trust principles.

Even if a setback does not preclude all building on a property, landowners can still challenge the regulation as a partial taking. For partial takings, "too far" is determined by the extent government has interfered with reasonable "investment-backed expectations" and the "character" of the regulation. Ultimately, this is a fact dependant, ad hoc inquiry, and it is difficult to predict the outcome of any particular case. What is certain is that many shoreline landowners subjected to aggressive setbacks will feel that government has sub-

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200. Id. (citing Curtin v. Benson, 222 U.S. 78, 86 (1911)) (internal quotation marks omitted).
201. TenBruggencate, supra note 185.
substantially hindered their ability to develop their property, and will bring partial taking inverse condemnation lawsuits for compensation.\textsuperscript{206}

Landowners brought a claim with a factual inquiry similar to a partial taking against the County of Kaua‘i in \textit{Brescia v. N. Shore Ohana}.\textsuperscript{207} In that case, a landowner’s subdivision code, combined with the county setbacks, required him to build an odd triangular-shaped house, albeit over 4,000 square feet, to comply with all the applicable regulations.\textsuperscript{208} The landowner sought a variance, arguing he was entitled to one because he had lost “reasonable use” of his property.\textsuperscript{209} Ultimately, the Hawai‘i Supreme Court disagreed, and overturned the lower court’s decision granting the variance as “clearly erroneous.”\textsuperscript{210} Although \textit{Brescia} is not a takings case, it does shed some light on the court’s approach to what reasonable use of coastal property entails. Here, we see the court unwilling to accommodate a coastal landowner with an only partially usable lot. The reasonable investment backed expectation inquiry would probably be similarly decided on similar facts.

Even if the investment backed expectation inquiry weighs against a partial taking, courts will still consider the “character” of a regulation before determining if compensation is due.\textsuperscript{211} Specifically, if the regulation is for health or safety, it weighs against a taking, and if the regulation is for the public welfare, it weighs for a taking.\textsuperscript{212} It is still unclear if counties can successfully justify erosion-based shoreline setbacks as necessary to the public health or safety. Ultimately, there is a strong argument for such an approach, as tsunamis and hurricanes periodically do serious damage to Hawaiian shores.\textsuperscript{213} Nevertheless, when beach loss is the true concern, as could be argued from an erosion-based setback rule, the health and

\begin{thebibliography}{9}
\bibitem{206} Accord, \textit{e.g.}, Brescia v. N. Shore Ohana, 115 Haw. 477, 168 P.3d 929 (2007).
\bibitem{207} \textit{Id.}
\bibitem{208} \textit{Id.} at 497, 168 P.3d at 949.
\bibitem{209} \textit{Id.}
\bibitem{210} \textit{Id.} at 499, 168 P.3d at 951.
\bibitem{212} \textit{Id.}
\end{thebibliography}
safety argument becomes harder to make, and welfare emerges as the more likely basis for the regulation. This in turn shifts the balance towards finding a regulatory taking and requiring just compensation.

Accordingly, aggressive shoreline setbacks will open the counties to costly litigation over Fifth Amendment regulatory takings claims. Although the government has a strong defense against partial takings claims, it will probably have to pay just compensation if setbacks preclude all economically viable use of a parcel. But even if the government wins regulatory takings cases, it still loses, as tax dollars and vital resources are expended in litigation that has no long-term benefit.

There is no long-term benefit to setbacks because they do nothing to resolve the problem of public beaches versus private land raised by coastal erosion; they only delay the clash of public and private interests. Ultimately, the Maui and Kaua'i setbacks only postpone this clash for fifty or seventy years, or even less for shallow lots. Indeed, setback exceptions for shallow lots are particularly troubling; with them, government is simply sacrificing the *jus publicum* so that it can avoid paying just compensation. Ultimately, shoreline setbacks are simply inadequate to protect Public Trust resources.

2. Mitigation Funds Violate the State’s Trust Duties Because They Do Not Preserve the *Jus Publicum* For Future Generations

One popular, and ultimately unworkable, answer to coastal erosion requires landowners who damage coastal resources to pay into a mitigation fund.\(^\text{214}\) For instance, the CZMA compels landowners to pay into such a fund when coastal resources will be “unavoidably damaged by... development.”\(^\text{215}\) Government may use these funds to increase shoreline public access, restore beaches, perform research, and increase coastal management.\(^\text{216}\)

The mitigation fund approach fails because the state is duty bound to protect Public Trust resources, not only for the people of today, but for future generations as well.\(^\text{217}\) Even granting the dubious

\(^{214}\) *See Interview with Dr. Fletcher I, supra note 9; see also HAW. REV. STAT. § 205A-2(c)(1)(B)(ii) (1993).*


\(^{216}\) *Interview with Dr. Fletcher I, supra note 9.*

proposition that a few thousand dollars could adequately compensate
the public for the loss of a beach, it is unlikely that any amount of
money, after filtering through the bureaucratic inefficiencies of gov-
ernment, could compensate the future generations of Hawai'i for that
loss. Ultimately, mitigation funds fail to achieve the ultimate effect
required by the Public Trust Doctrine: protection of tidal lands.

3. Allowing Shoreline Development but Forbidding Damaging
Armoring is Consistent With Hawai'i's Public Trust Doctrine and
Allows Property Owners to Use Their Land While it Still Exists

Properly implemented, the Public Trust Doctrine gives landowners
fair use of their property while it lasts, and leaves the takings to na-
ture. The doctrine is an attractive basis for managing the shore be-
cause it is background principle of state law. Thus, it provides gov-
ernment an excellent defense for all flavors of takings claims.

The primary advantage of basing shoreline management practices
on the Public Trust Doctrine is that it trumps takings claims. The
Hawai'i Supreme Court has held that the rights to Public Trust re-
sources never passed to private ownership when the western system
of property came to use in the islands. Rather, ownership of those
resources "remained in the people of Hawaii for their common
good." Similarly, the Ninth Circuit Court of Appeals held that the
Public Trust Doctrine is a background principle of Washington state
law, and it precluded a regulatory taking claim because the "doctrine
ran with the title to the tideland properties and alone precluded
shoreline residential development." Similarly, Hawai'i landown-
ers cannot argue that government has taken the right to harm the jus
publicum because that right was never part of their title. Not even
the state has that power. No regulation can ever take the right to
harm the public interest in tidelands from property owners because
that right does not exist.

There are also tactical advantages to a no seawall rule. Allowing
the sea to encroach on shoreline structures lets the state deal with
individual landowners as the ocean erodes their particular properties.
A facial attack on a no seawall rule is unlikely to succeed because
such a rule does not necessarily impact all coastal landowners right

218. McBryde Sugar Co. v. Robinson, 54 Haw. 174, 185, 504 P.2d 1330, 1338
(1973).
219. Esplanade Props., LLC v. City of Seattle, 307 F.3d 978, 986 (9th Cir.
2002).
away; landowners who have setback their structures substantially will not be affected for many years, if ever. In contrast, shoreline setback rules apply to everyone all at once, including the most litigious, thus exposing government to litigation with the most powerful and wealthy landowners right from the start.

Both North Carolina and Texas have been successful in implementing policies forbidding shoreline armoring. Under the Texas Open Beaches Act, no structures are allowed shoreward of the high water mark, and the state is preparing to sue landowners to force them to move their houses landward. In order to help mitigate expenses, shoreline landowners may apply to the Texas General Land Office for reimbursement up to $40,000 to relocate or demolish their noncompliant structures. Similarly, shoreline armoring is also prohibited in North Carolina. In Shell Island Homeowner's Association, Inc. v. Tomlinson, a North Carolina shoreline landowner challenged that rule, alleging it was a partial regulatory taking of property. The trial court and the court of appeals both dismissed the suit, finding that landowners failed to state a viable regulatory takings claim. The North Carolina Court of Appeals reasoned that the state was not obligated to compensate landowners for natural occurrences that the state did nothing to cause. The court found the state was not responsible for nature's taking of the land, despite the rule preventing shoreline armoring, because landowners have no inherent right to armor the shore. Thus, both Texas and North Carolina have been successfully implementing no-armoring policies.

Any apparent impracticality in a no-armoring rule is outweighed by the fact that the landowners affected chose to invest close to the ocean. When faced with an outright clash of rights, courts may be


221. Id.


224. Id. at 414.

225. Id. at 410, 417.

226. Id. at 415.

tempted to balance the various interests involved. However, a rule requiring landowners to move their structures back, rather than destroy the beach, is self-balancing. The magnitude of a landowner's loss will be directly proportional to his own folly. If landowners risk their assets by putting them too close to the ocean, their loss is not the public's burden. Landowners have the option of building simple, inexpensive structures close to the water that they can easily move back or rebuild. Alternatively, if they want to build something very expensive, they should build it somewhere safe. Should a landowner choose to build something very expensive right next to the Pacific Ocean, it is a private risk. If the ocean encroaches on that property, it is a private loss, and landowners cannot expect the public to sacrifice its right to the jus publicum because of their imprudence.

It is good policy for government to allow coastal development, but then require landowners to forfeit structures if the shoreline encroaches on them, rather than save them at the expense of the jus publicum. Although, when faced with destruction of property, "[i]t is impossible for any court to fashion a legal doctrine which will equitably compensate all victims," given "the paucity of land in our island state and the concentration of private ownership in relatively few citizens, a policy enriching only a few would be unwise." Indeed, it makes little sense to sacrifice beaches, which benefit all the people of Hawai`i and its visitors, in favor of a small handful of landowners.

V. CONCLUSION

It is fundamentally unjust to let a few private landowners destroy beaches that rightfully belong to everyone. Nevertheless, property owners have the right to use their land. However, they have no right to harm the jus publicum in the Public Trust, nor does the government have the right to let them.

228. See, e.g., PruneYard Shopping Ctr. v. Robins, 447 U.S. 74 (1980) (weighing a property owner's right to exclude and an individual's right to free speech in a shopping mall).
229. E-mail from Philip Reed to author (April 19, 2008, 06:30 HST) (on file with author) (suggesting the term "self-balancing").
Any just response to coastal erosion must account for that very basic distribution of rights. Setbacks fail because they do not let landowners use their otherwise developable property, and only delay the problem. Mitigation funds fail because they harm the *jus publicum* without preserving public benefits for future generations. Allowing property owners to use their land until doing so would harm the *jus publicum* is a simple way of addressing erosion while maintaining the proper balance between the public's rights to the shore and private owners' rights to use their land.

Moreover, not all seawalls cause erosion. "[I]f one accepts the simple proposition that nature is the arena of life and that a modicum of knowledge of her processes is indispensable for survival and rather more for existence, health and delight, it is amazing how many apparently difficult problems present ready solution."\(^{231}\)

When faced with a shoreline landowner's request to armor, government must look to nature and to science to understand the forces at work on that particular part of the shore, and what the effects of armoring will be. If armoring will do no harm to the *jus publicum*, government may allow it. By bridging the gap between law and science, the state and counties can do justice both to coastal landowners, and to current and future generations of the public.

Ultimately, landowners who invest close to the ocean must accept the natural consequences of that decision. If the ocean erodes their property, they must either move their structures landward, or the shoreline seaward.\(^{232}\) Erosion is happening. Sea level rise is coming. The hotels teetering on the shores of Waikīkī will not last forever. Nor should they be allowed to gobble the very resource that they have profited from for so long, a resource on which our economy depends. Hotels do not make Waikīkī special. The beach and the ocean do.

In practice, the state and counties should use waivers and permits to implement Public Trust principles. Government should require coastal landowners to sign waivers indicating that they will tear down or modify any structure within a certain distance of an eroding shoreline. Such a waiver could be a condition of a permit issued under the CZMA. Also, government and landowners must allow harmful armoring to degrade. The state and counties should require


\(^{232}\) But cf. Downing, *supra* note 147, at 6-7 (discussing the negative impacts of Waikīkī beach replenishment on Waikīkī surf breaks and swimming).
permits to repair or maintain any shoreline armoring. When a seawall is already in place, government can directly measure and judge how armoring has impacted the coastal environment. If it has harmed the *jus publicum*, the state has no authority to issue a permit to maintain or repair it, not in Lanikai, not in Waikīkī, not anywhere.

Beaches and sand are even more ancient than the origins of the law that protects them. Today, as it was in ancient Rome and ancient Hawai`i, the public has inalienable rights in submerged lands. The people of Hawai`i need those lands. Not only are beaches a part of the tourist image and experience on which our economy depends, but they are also a fundamental part of the fabric of life here. Moreover, the right to use them belongs to the people. The government simply has no authority to take that right and hand it over to private landowners. Nor does justice require the public to sacrifice that right to those who chose to risk their assets at the edge of the vast and powerful Pacific Ocean.