

DRAWING LINES IN THE SHIFTING SANDS OF CAPE CANAVERAL: WHY COMMON BEACH EROSION SHOULD NOT YIELD A COMPENSABLE TAKING UNDER THE FIFTH AMENDMENT

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I. INTRODUCTION

Picture the scenario: the year is 1863 and the war between the states is on. The naval fleet protecting Washington sits in an Atlantic port. It has been a difficult winter. The unimproved natural harbor protecting the vessels has been subjected to extensive physical damage from storms; the naval vessels have sustained damage as well. Accordingly, the United States, acting under its constitutional mandate to protect navigation, builds a jetty and breakwater designed to protect the harbor and the naval vessels therein. The navigational improvements are a great success. Damage to the harbor is substantially decreased and national security is bolstered. The only drawback of the harbor improvement project appears to be that the undeveloped and largely unpopulated lands to the south are now eroding at slow but constant rates.

One hundred and thirty years later, a posh development is constructed to the south of the harbor project at Town X. Erosion has been slow but perpetual at Town X for 130 years, but wealthy landowners purchase beach-front property there anyway. Shortly thereafter, a Fifth Amendment takings claim is filed against the federal government on behalf of Town X. Residents of Town X claim that the jetty and improvements have obstructed 130 years of sand that would otherwise have reached their beach. They allege that "but for" the harbor improvements, their dry sand beaches would be approximately three times larger. A federal court, caught up in the spirit of the times, awards the property owners of Town X one billion dollars in damages for the sand that never reached them. The already wealthy property owners of Town X gain compensation for property they never owned—a bountiful windfall. And, of course, federal taxpayers pay the bill for benefits that they never receive. Similar inverse condemnation suits are soon pending throughout the country.

The aforementioned hypothetical, which would have seemed fantastic in years past, became disturbingly realistic in 1994, and remains so. In a remarkably similar case, the United States Court of

Appeals for the Federal Circuit issued an opinion in *Applegate v. United States*¹ allowing 320 property owners to sue the Federal Government for a taking² of their dry sand beaches. The nature of the claim was that federal navigational improvements of the Cape Canaveral Harbor in 1951 had taken sand over a forty year period that otherwise would have replenished the plaintiffs' beaches.³ The *Applegate* case is expected to be tried in the Fall of 1996.⁴ A victory by the plaintiffs in *Applegate* will represent an unprecedented extension of takings doctrine, departing significantly from settled Supreme Court precedent, and contravening prudent fiscal and political policy.

During the last ten years, the Rehnquist Court has significantly broadened the scope of compensable takings under the Fifth and Fourteenth Amendments.⁵ Likewise, the Court of Appeals for the Federal Circuit, which hears all appeals of takings claims against the United States,⁶ has also broadened takings doctrine over the last two years.⁷ Since this shift, state and federal courts are now entertaining

1. 25 F.3d 1579 (Fed. Cir. 1994) (holding that the six year Tucker Act statute of limitations, 28 U.S.C. § 1491 (1988), did not bar a Fifth Amendment inverse condemnation action against the federal government, though the government constructed the Canaveral Harbor Project in 1951).

2. Private property may not be taken for public use without the payment of just compensation to the affected property owner. U.S. CONST. amend. V. The Supreme Court has held that the takings clause of the Fifth Amendment is applicable to the states through the Fourteenth Amendment. *Webb's Fabulous Pharmacies, Inc. v. Beckwith*, 449 U.S. 155, 160 (1980); *Chicago B. & Q. R.R. Co. v. Chicago*, 166 U.S. 226, 241 (1897).

3. See generally Plaintiffs' Complaint for Inverse Condemnation, *Applegate v. United States*, 28 Cl. Ct. 554 (1993) (No. 93-5180) [hereinafter *Complaint for Inverse Condemnation*].

4. Tony Boylan, *Lawyer, Residents Await Outcome of Suit Over Erosion*, FLA. TODAY (Melbourne, Fla.), Sept. 24, 1995, at 9A.

5. See, e.g., *First English Evangelical Lutheran Church of Glendale v. County of Los Angeles*, 482 U.S. 304 (1987) ("temporary takings" are compensable, even if the government has relinquished control of the property); *Nollan v. California Coastal Comm'n*, 483 U.S. 825 (1987) (holding that to be valid, land use exactions must have an "essential nexus" between the exaction and the burden sought to be alleviated); *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003 (1992) (establishing a categorical rule that a 100 percent reduction in economic value of land is a "per se taking"); *Dolan v. City of Tigard*, 114 S. Ct. 2309 (1994) (holding that exactions demanded as conditions for development permits must be "roughly proportional" to the impact caused by the new development).

6. See, e.g., *Avenal v. United States*, 33 Cl. Ct. 778 (1995).

7. See, e.g., *Florida Rock Indus., Inc. v. United States*, 18 F.3d 1560 (Fed. Cir. 1994), cert. denied, 115 S. Ct. 898 (1995) (holding that any diminution in value of property may be compensable as a "partial" regulatory taking); *Loveladies Harbor, Inc. v. United States*, 28 F.3d 1171 (Fed. Cir. 1994) (holding that fee ownership may be divided into discrete segments for purposes of determining if a *Lucas* categorical taking has occurred). *Florida Rock* and *Loveladies Harbor* have both come under strong criticism from academia and from some judges on the Federal Circuit. Critics argue both that the decisions contravene Supreme Court precedent, and moreover, stand as examples of unabashed judicial activism. See, e.g., *Florida Rock*, 18 F.3d at 1573 (Nies, C.J., dissenting) ("The majority's theory is contrary to Fifth Amendment 'takings' jurisprudence as delineated by the Supreme Court Labeling its lost use/value theory a 'partial taking' (*ipse dixit*) does not give it any legitimacy."); Michael C. Blumm, *The End of*

more takings claims than ever, prompting some legal scholars to opine that the Takings Clause of the Fifth Amendment has been transformed into the new sword for striking down certain judicially unpopular economic regulations.⁸ Most of this “takings revolution” has occurred in the context of regulatory takings.⁹ The Supreme Court, in contradiction of its relative activism in the regulatory takings arena, has largely eschewed any expansion of the physical takings doctrine despite repeated invitation to do so.¹⁰ *Applegate*, presumably a

Environmental Law? Libertarian Property, Natural Law, and the Just Compensation Clause in the Federal Circuit, 25 ENVTL. L. 171, 173 (1995) (“[U]nderpinning the Federal Circuit decisions is a radically libertarian view of property which countenances an unprecedented vision of judicial activism in reviewing land use [decisions] The result is the creation of a kind of natural law of property development which has no basis in the text of the Constitution, the intent of the Framers, or the history of Anglo-American property law.”).

8. For example, Justice Stevens argues that the Supreme Court’s heightened takings scrutiny in *Dolan*, and other recent takings cases, is very similar to the “substantive due process” analysis used by turn of the century courts to strike down economic regulations in cases like *Lochner v. New York*, 198 U.S. 45 (1905). Specifically, Justice Stevens stated that “both doctrines are potentially open-ended sources of judicial power to invalidate state economic regulations that Members of this Court view as unwise or unfair.” *Dolan*, 114 S. Ct. at 2327 (Stevens, J., dissenting); see also *Nollan*, 483 U.S. at 864 (Stevens, J., dissenting); Blumm, *supra* note 7, at 197-98 (criticizing the Federal Circuit’s decisions in *Florida Rock* and *Loveladies Harbor* (“They reflect a radical libertarian concept of property, grounded in natural law principles and judicial oversight of legislative decision making that will not maximize social welfare as we approach the Twenty-first Century.”)); Edward J. Sullivan, *Substantive Due Process Resurrected Through the Takings Clause: Nollan, Dolan and Ehrlich*, 25 ENVTL. L. 155 (1995).

9. Traditionally, there have been two categories of takings claims under the Fifth Amendment. The first, and more traditional category, is the “physical takings” claim. See generally William Michael Treanor, *The Original Understanding of the Takings Clause and the Political Process*, 95 COLUM. L. REV. 782 (1995). Physical takings claims generally occur when the government physically deprives property owners of the beneficial use of part or all of their land, be it through flood, pervasive noise, or physical trespass by government agents. See, e.g., *Pumpelly v. Green Bay Co.*, 80 U.S. 166 (1871) (finding a physical taking by flooding of land); *United States v. Causby*, 328 U.S. 256 (1946) (holding that frequent low overflights that interfere directly and immediately with use and enjoyment of land requires compensation); *Hendler v. United States*, 952 F.2d 1364, 1376 (Fed. Cir. 1991) (holding that repeated trespass by government on private land may constitute a physical taking).

Regulatory takings are the second, and more recently developed, category of takings. Treanor, *supra*, at 785-98. Regulatory takings occur when government actions deprive private property of such significant value that they are deemed to have gone “too far,” such that compensation is the only way to insure constitutional fairness. *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393, 415 (1922) (“The general rule at least is, that while property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking.”).

10. See *Dolan*, 114 S. Ct. at 2309 (holding that exactions are subject to the “rough proportionality” standard and are not to be treated as physical takings); *Yee v. City of Escondido*, 505 U.S. 519, 527-28 (1992) (holding that a rent control ordinance that made land alienation difficult did not constitute a physical taking); *Stevens v. City of Cannon Beach*, 114 S. Ct. 1332 (1994) (Scalia, J., dissenting from denial of certiorari) (protesting certiorari denial of physical takings claim emanating from doctrine of “custom” on Oregon beaches). Some commentators and federal judges have expressed frustration with the Supreme Court for refusing to extend the scope of the physical takings doctrine. See Jay Plager, *Takings Law and Appellate Decision Making*, 25 ENVTL. L. 161, 165 (1995) (arguing that the Supreme Court “could have disposed of [*Dolan v. City of Tigard*] in a page-and-a-half by declaring it a physical taking”). Judge Plager

physical takings claim, presents a factual scenario that, if ruled a taking, would significantly increase the scope of compensable physical takings nationwide¹¹ and effectively eviscerate well-established constitutional doctrine dating back to the Eighteenth Century.¹²

This article advocates drawing a line in the proverbial sand and resisting the expansion of physical takings doctrine, particularly through its application to the facts of *Applegate*. Though arguably societal good has come from the Supreme Court's extension of regulatory takings,¹³ this article argues that a dramatic expansion of physical takings doctrine will result in harm to American society.¹⁴ Abstract expectancies in public goods are simply an insufficient reason to support a new genre of compensable physical takings claims.¹⁵

Accordingly, Part II of this article delineates the traditional constitutional parameters and defenses of physical takings doctrine and assesses the treatment of these themes during modern times. Part III then presents the factual backdrop of the *Applegate* litigation, and examines the Federal Circuit's controversial resolution of a potentially far-reaching statute of limitations issue. Part IV analyzes the significant legal issues presented in *Applegate*, questioning whether free-floating sand can ever be considered a compensable property interest. Assuming a compensable property interest can exist, Part V addresses whether the government can directly "take" beach sands, given the dynamic nature of ocean and beach systems. Part VI assumes, *arguendo*, that a property interest and causation can be established, and thereby discusses what declaration of compensable taking, if any, would be required in the *Applegate* case given modern takings jurisprudence. Finally, Part VII posits economic and political

neglects to observe, however, that to have declared a physical taking in *Dolan* would have been to effectively overrule *Nollan v. California Coastal Comm'n*, 483 U.S. 825 (1987) and fifty years of state court adjudications of exactions. See *Dolan*, 114 S. Ct. at 2309.

11. See Craig Quintana, *Court Reinstates Suit on Brevard Beach Loss: An Appeals Court Said the Corps of Engineers Had Taken Property While Digging at Port Canaveral*, ORLANDO SENTINEL, June 16, 1994, at B1. "[T]he Army Corps of Engineers is going to be accountable for things they've done all over the country." *Id.* (quoting *Applegate* Plaintiffs' lead attorney Gordon "Stumpy" Harris).

12. See *infra* notes 62-76, 146-68, and accompanying text for a discussion of the navigational servitude doctrine and the public trust doctrine.

13. See generally Frank I. Michelman, *Property, Utility, and Fairness: Comments on the Ethical Foundations of "Just Compensation" Law*, 80 HARV. L. REV. 1165 (1967).

14. See *infra* notes 251-68 and accompanying text for an economic analysis of an expanded physical takings doctrine.

15. *Cf.* Fallini v. United States, 31 Cl. Ct. 53, 57 (1994), *vacated on other grounds*, 56 F.3d 1378 (Fed. Cir. 1995); Avenal v. United States, 33 Cl. Ct. 778, 785 (1995); Broughton Lumber Co. v. United States, 30 Cl. Ct. 239, 243 (1994).

policy arguments against expanding physical takings doctrine into the context of *Applegate*-genre injuries to private property.

II. PHYSICAL TAKINGS DOCTRINE: RECONCILING THE IRRECONCILABLE

A. *The Birth of a Doctrine: Physical Takings by Flood—An Ambiguous Beginning*

The intentional taking of private property for public use is compensable and has been so since the enactment of the Fifth Amendment.¹⁶ The original intent of the Takings Clause was primarily to protect against the uncompensated exercise of eminent domain powers.¹⁷ However, approximately one hundred years after the enactment of the Fifth Amendment, the United States Supreme Court vacated such a strict construction in *Pumpelly v. Green Bay Co.*¹⁸

In *Pumpelly*, no seizure of tangible property occurred. Rather, the Green Bay Company, pursuant to a Wisconsin statute, erected a dam on the Fox River which subsequently flooded Pumpelly's property.¹⁹ The Supreme Court acknowledged that no land had been seized for public use by the State of Wisconsin, but nevertheless concluded that a taking had occurred.²⁰ The Court reasoned that compensation was appropriate because total economic value in the plaintiff's property had been destroyed as a result of government-induced flooding.²¹ However, the Court was careful to narrowly circumscribe the types of value losses that would create an obligation of compensation, limiting the *Pumpelly* holding to cases "where real estate is actually invaded by superinduced additions of water, earth, sand, or other material, or by having any artificial structure placed on it, so as to effectually destroy or impair its usefulness"²²

The Supreme Court first applied *Pumpelly* to find a taking in *United States v. Lynah*.²³ *Lynah* addressed the level of diminution

16. See Treanor, *supra* note 9, at 782.

17. *Id.* at 791-92 ("St. George Tucker, the first legal scholar to offer an interpretation of the [Takings] clause, took the position that it was concerned with physical seizures. In his 1803 treatise, he wrote that the clause 'was probably intended to restrain the arbitrary and oppressive mode of obtaining supplies for the army, and other public uses, by impressment, as was too frequently practiced during the revolutionary war.'") (citation omitted).

18. 80 U.S. 166 (1871).

19. *Id.* at 166-67.

20. *Id.* at 177-78.

21. *Id.*; see also Treanor, *supra* note 9, at 795 n.74.

22. *Pumpelly*, 80 U.S. at 181.

23. 188 U.S. 445, 450 (1903), *overruled in part* United States v. Chicago, M., St. P. & P. R.R. Co., 312 U.S. 592 (1941) (holding that the flooding of 18 inches of water on a South Carolina farm as the result of a dam project rendered the property an "irreclaimable bog" subject to compensation requirement).

required to compel a compensation obligation. Finding for the injured landowner, the *Lynah* Court held that “where the government by the construction of a dam or other public works so floods lands belonging to an individual as to *substantially destroy their value* there is a taking within the scope of the 5th Amendment.”²⁴

In *United States v. Cress*,²⁵ the plaintiff’s property was subjected to intermittent, but inevitably recurring, government-induced overflows from the Cumberland River. The Supreme Court held, for the first time, that a physical invasion of a property interest less than a fee could constitute a compensable taking.²⁶ In response to the federal government’s argument that a compensable taking required complete destruction of a fee’s value, the *Cress* Court held that “it is the character of the invasion, not the amount of damage resulting from it, *so long as the damage is substantial*, that determines the question whether it is a taking.”²⁷ Thus, under the *Cress* standard, the government could be found liable for having taken an easement,²⁸ rather than a fee interest in property, as long as the physical invasion was of the proper character. As Professor Costonis explains, “[t]he flooding cases consistently stress the severity of the trespass by object, whether the interest found to have been taken is a fee or an easement, continuous or otherwise.”²⁹ The plaintiffs in *Applegate* will try diligently to link the facts of their case to *Cress* because of the intermittent nature of the injury in that case. This will not be an easy task.³⁰ As the following discussion illustrates, the facts in *Applegate*

24. *Lynah*, 188 U.S. at 470 (emphasis added). Though the resolution of the “value” issue in *Lynah* remains good law, the case was partially overruled by *United States v. Chicago, M., St. P. & P. R.R.*, 312 U.S. 592 (1941), because a large portion of the flooded property in *Lynah* fell below the mean high water mark, and was thus, non-compensable under the navigational servitude doctrine. *Chicago, M., St. P. & P. R.R.*, 312 U.S. at 598. For a discussion of the development of the navigational servitude doctrine, see *infra* notes 62-76 and accompanying text.

25. 243 U.S. 316 (1917) (finding a taking of property as result of locks and dams along the Kentucky River).

26. *Id.* at 328.

27. *Id.* (emphasis added).

28. *United States v. Cress*, 243 U.S. 316 (1917), and *United States v. Causby*, 328 U.S. 256 (1946), are both examples of compensable “partial takings” cases where the government acquired an “easement” in private property, and therefore, must compensate the property owner for the value of the easement rather than for the value of the fee as a whole. John J. Costonis, *Presumptive and Per Se Takings: A Decisional Model for the Taking Issue*, 58 N.Y.U. L. REV. 465, 546 (1983).

29. Costonis, *supra* note 28, at 547.

30. One critical difference between *Cress* and *Applegate* is that the government caused no physical invasion of land in *Applegate*. It merely interrupted the southerly flow of alluvial sand, so there was no “trespass by object” as there was in *Cress*. See *infra* note 132 and accompanying text.

are more closely aligned with cases in which the Supreme Court has found no compensable taking.

After deciding *Pumpelly*, the Supreme Court exercised great caution in declaring physical takings, finding takings only when required by principles of fundamental fairness.³¹ In particular, the Supreme Court refused to find a taking where physical damage to property was not closely linked to a government project in space and time³² or when flooding was an unforeseeable consequence.³³ For example, in *Bedford v. United States*,³⁴ property owners downstream from a newly constructed revetment in the Mississippi River sued the United States for a taking after the river began eroding their property. The Supreme Court refused to compel compensation, reasoning that:

[i]n the case at bar the damage was strictly consequential. It was the result of the action of the river through a course of years. The case at bar, therefore, is distinguishable from the *Lynah* Case in the cause and manner of the injury. In the *Lynah* Case the works were constructed in the bed of the river, obstructed the natural flow of its water, and were held to have caused, as a direct consequence, the overflow of *Lynah's* plantation. In the case at bar the works were constructed along the banks of the river, and their effect was to resist erosion of the banks by the waters of the river. There was no other interference with natural conditions. Therefore, the damage to appellants' land, if it can be assigned to the works at all, was but an incidental consequence of them.³⁵

In *Sanguinetti v. United States*,³⁶ the plaintiff argued that the destruction of his property by a flood resulted from a nearby canal constructed by the United States.³⁷ The Court, after considering

31. *Cf.* *United States v. Dickinson*, 331 U.S. 745, 748 (1947) ("The Fifth Amendment expresses a principle of fairness and not a technical rule of procedure."). *Pumpelly*, *Cress* and *Lynah* were cases where fundamental fairness mandated compensation. *Pumpelly v. Green Bay Co.*, 80 U.S. 166 (1871); *Cress*, 243 U.S. at 316; *United States v. Lynah*, 188 U.S. 445 (1903), *overruled in part* *United States v. Chicago, M., St. P. & P. R.R. Co.*, 312 U.S. 592 (1941). In all three cases, the plaintiffs, with no reasonable expectation, experienced extensive damage to their respective properties. *Pumpelly*, 80 U.S. at 166-67; *Cress*, 243 U.S. at 318; *Lynah*, 188 U.S. at 467-68. The damage was proven to have been directly caused by a physical invasion resulting from federal public works. *Pumpelly*, 80 U.S. at 177-78; *Cress*, 243 U.S. at 327-28; *Lynah*, 188 U.S. at 468. In essence, these property owners had experienced a de facto ouster from possession, which invoked a right to compensation. See *Gibson v. United States*, 166 U.S. 269, 276 (1897).

32. *Bedford v. United States*, 192 U.S. 217 (1904).

33. *Sanguinetti v. United States*, 264 U.S. 146 (1924).

34. 192 U.S. 217 (1904) (finding that navigation improvements which consequentially caused erosion of private lands were incidental and therefore did not constitute a compensable taking).

35. *Id.* at 225 (emphasis added).

36. 264 U.S. 146 (1924).

37. *Id.*

Pumpelly, Lynah and *Cress*, determined that the facts of *Sanguinetti* were more closely aligned with the *Bedford* scenario and held there was no taking.³⁸ In reaching its decision, the Court found persuasive that:

[i]t was not shown, either directly or inferentially, that the government or any of its officers, in the preparation of the plans or in the construction of the canal, had any intention to thereby flood any of the land here involved, or had any reason to expect that such a result would follow.³⁹

The *Sanguinetti* Court was also persuaded by the plaintiff's inability to show that "the overflow was the direct or necessary result of the structure."⁴⁰

Though the early physical takings cases are difficult to reconcile⁴¹ and may lead to conflicting results, the Court in *Sanguinetti* expressed the most commonly agreed upon standard for physical invasion cases.⁴² "[I]n order to create an enforceable liability against the government, it is at least necessary that the overflow be the direct result of the [navigational] structure, and constitute an actual, permanent invasion of the land, amounting to an appropriation of and not merely an injury to the property."⁴³

38. *Id.* at 149-50.

39. *Id.* at 147-48. Thus, foreseeability appeared to be a concern to the Court in determining if fundamental fairness required compensation. *Cf.* Michelman, *supra* note 13, at 1228-29 n.10.

40. *Sanguinetti*, 264 U.S. at 149-50. Similarly, in *Southern Pacific Co. v. United States*, 266 U.S. 586 (1924), the Supreme Court, relying on *Sanguinetti*, adopted and affirmed the opinion of the Court of Claims, 58 Ct. Cl. 428 (1923), which had held that beach erosion damages emanating from the building of a jetty were unrecoverable because any damages were consequential and removed in time and space from any government action. *Southern Pacific* may carry significant weight in *Applegate* vis-à-vis the issue of causation. *See Southern Pacific*, 58 Ct. Cl. at 428 (discussion on erosion causation).

41. *See Franklin v. United States*, 101 F.2d 459, 463 (6th Cir.) (Simons, J., concurring), *aff'd*, 308 U.S. 516 (1939) ("It is clear, however, from the analysis of the authorities . . . that there is conflict between the holdings in *Pumpelly* and *Lynah* Cases on the one hand and the *Gibson*, *Bedford* and *Jackson* Cases on the other . . .").

42. *See Owen v. United States*, 20 Cl. Ct. 574, 583 (1990) (*Owen II*).

43. *Sanguinetti*, 264 U.S. at 149. *But see* Skip Kirchdorfer v. United States, 6 F.3d 1573 (Fed. Cir. 1993) (holding that a permanent physical taking was established where the United States Navy seized an abandoned warehouse for a period of days).

B. Modern Physical Takings Jurisprudence: A Per Se Rule, But Little Explanation

Prior to 1982 and *Loretto v. Teleprompter Manhattan CATV Corp.*,⁴⁴ all takings cases, whether physical or regulatory, were subject to an ad hoc inquiry to determine whether government action placed unreasonable burdens on a particular landowner for the benefit of the public.⁴⁵ In seeking the proper balance of burden allocation between public and private interests, the United States Supreme Court in *Penn Central Transportation Co. v. New York City*⁴⁶ established three factors for consideration in determining when government action has gone too far so as to constitute a taking: (1) the economic impact of the regulation on the property owner; (2) the degree that the regulation interferes with the property owner's "distinct investment-backed expectations;" and (3) the character of the governmental action.⁴⁷

With regard to the third factor, the character of the governmental action, the *Penn Central* Court instructed that "[a] 'taking' may more readily be found when the interference with property can be characterized as a physical invasion by government," rather than mere economic regulation of private property.⁴⁸ *Penn Central's* "physical invasion" dicta led to the formulation of the Supreme Court's first per se taking rule in *Loretto*.⁴⁹

Loretto involved a claim for compensation against the State of New York by a New York City landlord. The plaintiff's building was subjected to a de minimis physical invasion, specifically, the affixing of cable wire, boxes, plates and screws to the side of the plaintiff's building.⁵⁰ Though acknowledging that the size of the physical

44. 458 U.S. 419 (1982) (holding that legislation requiring landlords to permit cable television companies to install equipment in rental buildings is permanent physical occupation, requiring constitutional compensation).

45. See generally *Pumpelly v. Green Bay Co.*, 80 U.S. 166 (1872); *Northern Transp. Co. v. Chicago*, 99 U.S. 635 (1879).

46. 438 U.S. 104 (1978). The plaintiffs in *Penn Central* were the owners of Grand Central Terminal, which had been designated a historic landmark under a New York City landmark preservation law. *Id.* at 109. The City denied the plaintiffs' request to build a skyscraper on top of Grand Central Terminal because the structure would overwhelm the original design of the terminal and take away from the public's enjoyment of the historic landmark. *Id.* at 117-19. The plaintiffs brought suit, alleging a taking of their property rights above the railroad terminal. *Id.* at 119.

47. *Id.* at 124.

48. *Id.*

49. See *id.* Four years later, the Court cited to *Penn Central's* three-part test in its analysis in *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419, 426 (1982). The *Loretto* Court concluded that a physical invasion of private property authorized by the government constituted a per se taking. "[W]e have long considered a physical intrusion by government to be a property restriction of an unusually serious character for purposes of the Takings Clause." *Id.*

50. *Id.* at 438.

invasion was minimal and the public benefits of the cable installation significant, the Supreme Court nevertheless found that a compensable taking had occurred.⁵¹ In reaching this conclusion, the Court reasoned that government authorization of a permanent physical occupation of private property constituted a compensable taking, regardless of the public interests furthered by the governmental action.⁵² The Court found that "permanent" physical takings are different from other types of governmental actions affecting property because they do "not simply take a single 'strand' from the 'bundle' of property rights: [they] chop through the bundle, taking a slice of every strand."⁵³ Five years later, in *Nollan v. California Coastal Commission*,⁵⁴ the Supreme Court reaffirmed the rule that a permanent physical occupation of land by the government creates an impermissible per se taking requiring just compensation.⁵⁵

Nevertheless, the seemingly simple rule of *Loretto* has raised difficult questions. For example, *Loretto* did not define what constitutes protected "property" for purposes of determining the existence and extent of a physical taking.⁵⁶ *Loretto* did not determine whether a physical taking occurs when the government intermittently and incidentally causes injury to private property in the lawful exercise of its police powers.⁵⁷ Moreover, *Loretto* did not delineate the takings

51. *Id.*

52. *Id.* at 426.

53. *Id.* at 435; accord Michelman, *supra* note 13, at 1184.

The one incontestable case for compensation (short of formal expropriations) seems to occur when the government *deliberately brings it about* that its agents, or the public at large, 'regularly' use or 'permanently' occupy, space or a thing which theretofore was understood to be under private ownership.

Id. (emphasis added).

54. 483 U.S. 825 (1987).

55. *Id.* at 832.

56. Since *Loretto*, the lower federal courts have addressed this issue by borrowing from Supreme Court regulatory takings jurisprudence. See *M & J Coal Co. v. United States*, 47 F.3d 1148, 1154 (Fed. Cir. 1995) (using the *Lucas* approach for analyzing a takings claim involving governmental action); accord *Avenal v. United States*, 33 Cl. Ct. 778, 785 (1995); cf. *Lucas v. South Carolina Coastal Council*, 105 U.S. 1003, 1030-31 (1992) (holding, in the context of a regulatory taking, that protectable property expectancies are defined by "existing rules or understandings that stem from an independent source such as state law to define the range of interests that qualify for protection as property under the Fifth and Fourteenth Amendments").

57. *Loretto v. Manhattan Teleprompter CATV Corp.*, 458 U.S. 414, 435 n.12 (1982) ("Not every physical invasion is a taking. As . . . the intermittent flooding cases reveal, such temporary [takings] are subject to a more complex balancing process to determine whether they are a taking."). As the above language in *Loretto* indicates, *Loretto* does not purport to limit or overrule the holdings in *Bedford* and *Sanguinetti* that consequential injuries to property are generally non-compensable under the Fifth Amendment.

But see *Owen v. United States*, 851 F.2d 1404, 1412 (Fed. Cir. 1988) (*Owen I*) (holding that navigational improvements which changed a river current and allegedly caused a house to topple into the river through erosion could be the basis for a takings claim). The *Owen I* court

analysis that should be applied when a physical invasion amounts to something less than a permanent physical invasion. Is it a per se taking anyway⁵⁸ or is the three-prong *Penn Central* test the appropriate mode for determining compensability?⁵⁹

The physical taking analysis is particularly difficult where the government is not the sole cause of the physical intrusion.⁶⁰ Consider Professor Michelman's analysis of "consequential invasion" cases such as *Bedford* and *Sanguinetti*:

The only generalization deducible from the welter of doctrines variously used to determine compensability in 'consequential invasion' cases is that compensation is owing in some, but not all, such cases. . . . It is clear . . . that although the 'invasion' element is indubitably present in these cases, such accidental, 'unintended' governmental trespasses do not automatically trigger a 'taking.'⁶¹

C. The Primary Defense to Physical Takings: The Navigational Servitude Doctrine

The majority of the early takings cases after *Pumpelly* were resolved not on the basis of *Sanguinetti* (that damage was only consequential), but rather on the basis of the "navigational servitude

stated that "it is 'the permanence of the consequences of the Government act [that] is controlling, and there is no additional requirement that the instrumentality of the consequence be purely a governmental one." *Id.* (quoting *Tri-State Materials Corp. v. United States*, 550 F.2d 1 (Ct. Cl. 1977)). *Owen I* arguably conflicts with *Bedford*, *Sanguinetti* and *Union Pacific*. See *infra* note 181 and accompanying text.

58. Judge Plager of the Federal Circuit appears to take this position. Plager, *supra* note 10, at 163-64.

59. See *infra* notes 217-31 for an analysis of this issue.

60. As one commentator has correctly observed, "[t]hrough the physical invasion rule is said to be a per se rule . . . uncertainty exists about what constitutes a physical invasion." James P. Karp, *An Alternative to the United States Supreme Court's Economic-Based Rationale in Takings Analysis*, 2 VILL. ENVTL. L.J. 253, 261 (1991). Compare *United States v. Cress*, 243 U.S. 316 (1917) (finding a taking of property as a result of locks and dams along the Kentucky River) and *Coates v. United States*, 93 F. Supp. 637 (Ct. Cl. 1950) (holding that the United States was liable for improvements to the Missouri River which incidentally damaged the plaintiff's farmland) with *Sanguinetti v. United States*, 264 U.S. 146, 149-50 (1924) (holding that to recover on a takings claim, the plaintiff must show that flooding damage is the "direct or necessary result" of a navigational improvement) ("[T]he [flooding] injury was in its nature indirect and consequential, for which no implied obligation on the part of the government can arise.") and *Bedford v. United States*, 192 U.S. 217 (1904) (holding that physical invasion which occurred as an indirect consequence of a federal public works project was not a compensable taking) and *Southern Pac. Co. v. United States*, 58 Ct. Cl. 428 (1923) (finding that where the ocean erodes private land as the result of jetty or breakwater, injury is consequential and the government is not liable for damages).

61. Michelman, *supra* note 13, at 1228-29 n.110. Professor Michelman explains that such ambiguity exists with respect to consequential physical invasions because "[t]he sense of moral outrage probably is not so easily kindled when physical invasions appear to be accidents." *Id.*

doctrine.”⁶² The navigational servitude doctrine asserts that property rights in navigable waters and submerged lands are vested in the government of the United States.⁶³ The doctrine, which is nearly as old as the United States itself, developed as an adjunct to the federal commerce power.⁶⁴ The United States’ ownership of navigable waterways helped to fulfill the country’s obligation to provide for commerce among the states.⁶⁵

The navigational servitude doctrine was historically “an interest which permit[ed] the federal government to displace or destroy state-recognized property rights in navigable waters . . . without having to pay compensation.”⁶⁶ The Supreme Court reasoned that the failure to compensate for such property interests is not unfair because “[t]here . . . has been ample notice over the years that such property is subject to a dominant public interest.”⁶⁷ Thus, landowners never have had a compensable expectancy in economic interests preempted by the navigational servitude doctrine.

Since the navigational servitude was a “dominant servitude” over other private property rights in navigable waters, riparian and littoral property historically contested the boundaries of the servitude. The Supreme Court firmly resolved this issue in *United States v. Chicago, Milwaukee, St. Paul & Pacific Railroad*,⁶⁸ holding that the navigational servitude extended to all lands in a navigable stream, submerged or

62. See, e.g., *United States v. Chicago, M., St. P. & P. R.R.*, 312 U.S. 592 (1941); *Lewis Blue Point Oyster Cultivation Co. v. Briggs*, 229 U.S. 82 (1913); *Scranton v. Wheeler*, 179 U.S. 141 (1900); *Gibson v. United States*, 166 U.S. 269 (1897).

63. *Gibson*, 166 U.S. at 271.

64. See *Gilman v. Philadelphia*, 70 U.S. 713, 724-25 (1865) (“Commerce includes navigation. The power to regulate commerce comprehends the control for that purpose, and to the extent necessary, of all the navigable waters of the United States For this purpose they are the public property of the nation.”) (emphasis added).

65. See *Chicago, M., St. P. & P. R.R.*, 312 U.S. at 596 (addressing the wide scope of Congress’ power to improve navigation below the high water mark).

66. David B. Hunter, *An Ecological Perspective on Property: A Call for Judicial Protection of the Public’s Interest in Environmentally Critical Resources*, 12 HARV. ENVTL. L. REV. 311, 360 (1988) (quoting JOSEPH L. SAX, *LEGAL CONTROL OF WATER RESOURCES* 96 (1986)); accord *Gibson*, 166 U.S. at 275.

[R]iparian ownership is subject to the obligation to suffer the consequences of the improvement of navigation in the exercise of the dominant right of the government The legislative authority for [public] works consisted simply in an appropriation for their construction, but this was an assertion of a right belonging to the government, to which riparian property was subject.

Gibson, 166 U.S. at 276.

67. *United States v. Kansas City Life Ins. Co.*, 339 U.S. 799, 808 (1950).

68. 312 U.S. 592 (1941) (holding that in an eminent domain proceeding against land owned by a railroad, the federal government was not required to compensate for lands located between the high and low water marks of the river); see also David Guest, *The Ordinary High Water Boundary on Freshwater Lakes and Streams: Origin, Theory, and Constitutional Restrictions*, 6 J. LAND USE & ENVTL. L. 205 (1990).

otherwise, falling below the ordinary high water mark.⁶⁹ The Court further elaborated that no taking of lands can occur below the high water mark of a navigable stream because “[t]he damage sustained [would result] not from a taking of the riparian owner’s property in the stream bed, but from the lawful exercise of a power to which that property [had] always been subject.”⁷⁰

The navigational servitude doctrine has vested significant power in the United States to improve commerce, including the building of structures within the bed of navigable waters. The doctrine allows the federal government to avoid incurring an obligation to compensate for damages caused below the high water mark.⁷¹ For example, the Supreme Court has held that no taking occurred when the United States dredged a channel, destroying privately owned oyster beds,⁷² altered a river, depriving a landowner of access to deep water for a boat landing,⁷³ and ended a stream’s navigability outright.⁷⁴

The Supreme Court has extended the navigational servitude doctrine to hold that value inherent in the flow of a stream is vested in the government pursuant to the navigational servitude.⁷⁵ Thus, when a

69. *Chicago, M., St. P. R.R.*, 312 U.S. at 597. Of course, by making the high water mark the boundary, the Supreme Court raised new questions about how the high water mark would be determined. See generally John A. Humbach & Jane A. Gale, *Tidal Title and the Boundaries of the Bay: The Case of the Submerged “High Water” Mark*, 4 FORDHAM URB. L.J. 91 (1975) (discussing divergence of opinion from jurisdiction to jurisdiction on the proper setting of the high water mark).

The United States must pay compensation for damages it causes to property above the high water mark. *United States v. Willow River Power Co.*, 324 U.S. 499, 509 (1945) (“High-water mark bounds the bed of the river. Lands above it are fast lands and to flood them is a taking for which compensation must be paid.”).

70. *Chicago, M., St. P. & P. R.R.*, 312 U.S. at 597.

71. See, e.g., *Scranton v. Wheeler*, 179 U.S. 141 (1900); *Gibson v. United States*, 166 U.S. 269, 272 (1897).

It is not, however, to be conceded that congress has [sic] not power to order obstructions to be placed in the navigable waters of the United States, either to assist navigation or to change its direction . . . *It may construct jetties*. It may require all navigators to pass along a prescribed channel, and may close any other channel to their passage.

Id. (citations omitted) (emphasis added). In the context of the *Applegate* litigation, *Gibson* specifically recognizes the construction of jetties as a valid aspect of the navigational servitude power. *Id.*

72. *Lewis Blue Point Oyster Cultivation Co. v. Briggs*, 229 U.S. 82 (1913).

73. *Gibson v. United States*, 166 U.S. 269 (1897).

74. *United States v. Commodore Park, Inc.*, 324 U.S. 386 (1945); accord *Owen v. United States*, 851 F.2d 1404, 1410 (Fed. Cir. 1988).

75. *United States v. Twin City Power Co.*, 350 U.S. 222, 225-26 (1956).

It is argued . . . that the special water-rights value should be awarded the owners of this land since it lies not in the bed of the river nor below high water but above and beyond the ordinary high-water mark. An effort is made by this argument to establish that this private land is not burdened with the Government’s servitude. *The flaw in that reasoning is that the landowner here seeks a value in the flow of the*

governmental action withholds sand or any other commodity that would not otherwise inhere in adjacent riparian lands “but for” the flow of the navigable water, no compensation obligation is created.⁷⁶

III. APPELATE V. UNITED STATES: ONE SMALL STEP FORWARD FOR THE LIBERTARIAN, ONE GIANT STEP BACKWARD FOR THE FEDERAL TAXPAYER

A. *From Godsend to Goat: The Story of the Canaveral Harbor Project*

In 1950, an economic windfall befell the residents of what is now the “Space Coast” of Florida.⁷⁷ The construction of a large harbor at Cape Canaveral pleased the business interests in largely rural and undeveloped Brevard County.⁷⁸ Commerce was expected to significantly improve and transportation costs to decrease because citrus and agricultural producers would no longer have to ship their products by rail to the nearest deep water ports in Jacksonville and Ft. Pierce.⁷⁹ In addition, the government added a military component to the harbor, promising increased jobs and business opportunities.⁸⁰ Tourism revenues were expected to increase in response to the new possibilities for commercial fishing and recreational boating.⁸¹ Things were looking good.

Then, in 1956, things got even better. That year the National Aeronautics and Space Agency (NASA) decided to locate its first space center on lands adjacent to Canaveral Harbor as a result of the construction and improvement of Canaveral Harbor⁸² and the largely

stream, a value that inheres in the Government's servitude and one that under our decisions the Government can grant or withhold as it chooses. It is no answer to say that payment is sought only for the location value of the fast lands. That special location value is due to the flow of the stream; and if the United States were required to pay the judgments below, it would be compensating the landowner for the increment of value added to the fast lands if the flow of the stream were taken into account.

Id. (emphasis added).

76. See *Owen I*, 851 F.2d at 1413; *Pitman v. United States*, 457 F.2d 975, 978 (Ct. Cl. 1972), *overruled in part Owen I*, 851 F.2d at 1404; *cf. Lambert Gravel Co. v. J.A. Jones Constr. Co.*, 835 F.2d 1105 (5th Cir. 1988) (holding that the government can assert a navigational servitude to prevent a contractor from using a sand bar located below the high water mark of river as borrow material).

77. The term “Space Coast” refers primarily to Brevard County, Florida, where the Kennedy Space Center is located, and also to Flagler, Volusia, and Indian River counties.

78. See REPORT OF THE CHIEF OF ENGINEERS, DEPARTMENT OF THE ARMY, SUBJECT: CANAVERAL HARBOR, FLORIDA 3-5 (July 6, 1962).

79. *Id.*

80. *Id.*

81. *Id.* at 5.

82. The rocket booster for the space crafts, namely the Apollo space crafts, had to be transported to the Spaceport by barge. Telephone Interview with Lisa Malone, Chief of the

undeveloped nature of coastal Brevard County.⁸³ With the successful implementation of NASA, Brevard and adjacent counties experienced population explosions.⁸⁴ High-tech defense industries, drawn by the proximity of NASA and Patrick Air Force Base, soon relocated to Brevard County.⁸⁵ But growth was not occurring everywhere. Some beaches south of Port Canaveral began to erode.⁸⁶

In the mid 1960s, previously rural coastal areas first experienced large-scale beach development.⁸⁷ People began building on coastal properties, often without observing prudent set-back provisions. And the erosion continued.⁸⁸ The United States Army Corps of Engineers

Media Services Office, NASA (April 5, 1996). Today the Space Shuttle's external tank is transported by barge to the Spaceport. *Id.* Hence, the special construction of the port was likely critical to NASA's location in Brevard County because of the need to transport equipment by barge. In this way, the harbor was essential to Brevard County's growth and high-tech employment opportunities. *See also* Letter from confidential source on file with author ("... [T]he presence of NASA was dependent upon the development of the port facilities within the Space Coast area.").

83. NASA PUBLIC AFFAIRS, THE KENNEDY SPACE CENTER STORY 1-2 (1991). Brevard County was predominantly undeveloped prior to a population explosion in the early 1960s. In 1950 Brevard County's population was 23,653. 1990 FLORIDA CENSUS HANDBOOK 3 (1994). In 1970, Brevard County's population had grown to 230,006. *Id.* Between 1950 and 1960, Brevard's 371 percent increase in population was greater than the growth of any other county in Florida. *Id.* "The increase [in the 1980s] matched the migration to Brevard in the 1960s, when thousands came to the Space Coast to work for NASA in the early years of the space program." John J. Glisch, *Census Figures Really Add Up in Brevard County a Diversified Economy Created Plenty of Jobs, and Growth Surged in the 1980s by 126,000 Residents to 398,978*, ORLANDO SENTINEL, April 3, 1992, at D1. Therefore, at the time of Canaveral Harbor's construction in 1951, the Brevard County coastline was known as "mosquito county," but not much else. David Ballingrud, *NASA Cutbacks Pull Space Coast Down to Earth*, ST. PETERSBURG TIMES, July 23, 1995 ("Once known as Mosquito County, Brevard became the fastest growing county in the nation during the early days of the space program."). After the construction of the Harbor and subsequent location of the space program, population soared. *Id.* The rural nature of Cape Canaveral and the adjacent coastal areas was critical to NASA's location in Brevard County. NASA PUBLIC AFFAIRS *supra*. Logically, the possibility of aeronautic catastrophes precluded NASA's location in a more populous coastal area. *Cf.* Appendix A (delineating dates when *Applegate* plaintiffs took title to their respective properties).

84. *See* FLORIDA CENSUS HANDBOOK, *supra* note 83, at 3.

85. *See, e.g.*, Richard Burnett, *On the Offensive High-Tech Harris Stays Strong by Moving Away from Defense*, ORLANDO SENTINEL, Feb. 13, 1995 (discussing the history of Automatic Press Co. and noting that "[i]n the late 1960s and the 1970s, Harris expanded into aerospace and . . . moved its headquarters to Brevard County in 1977 to be closer to NASA and Kennedy Space Center").

86. Most objective experts agree that the jetties and other navigational improvements constructed to protect Port Canaveral were at least one of several factors causing the erosion. *See, e.g.*, ORRIN H. PILKEY, JR., ET AL., *LIVING WITH THE EAST FLORIDA SHORE* 14-15, 93-95 (1984) (discussing barrier island migration and the history of beach erosion in Brevard County); *see also infra* notes 198-216 and accompanying text.

87. Between 1960 and 1969 a total of 43,174 homes were built in Brevard County. FLORIDA CENSUS HANDBOOK, *supra* note 83, at 154. This is in comparison to the small total of 5894 homes built in Brevard County at any time prior to 1950. *Id.*

88. Ironically, even the plaintiffs in *Applegate* concede that by the mid-1960s, when most of the beach construction was occurring in Brevard County, the public was "aware that the

studied proposals for reversing the erosion, but the unusual currents created by the flow of the Atlantic around Cape Canaveral, caused the Corps to repeatedly scrap ineffective plans for implementing erosion control mechanisms.⁸⁹

In 1970, the first takings lawsuit concerning the Canaveral Harbor Project, *Pitman v. United States*,⁹⁰ was filed against the federal government, seeking damages for the erosion of beach-front property in Brevard County.⁹¹ The Court of Claims granted summary judgment to the United States on the merits, in part because property damages were consequential to the Canaveral Harbor Project.⁹² More importantly, the court granted summary judgment on the basis of *United States v. Twin City Power Co.*,⁹³ because the plaintiff had no

Canaveral Harbor Project was the cause of significant erosion to Brevard County's sandy beaches." Complaint for Inverse Condemnation, *supra* note 3, at 9. Moreover, few would dispute that NASA was the catalyst behind the population boom and subsequent demand for coastal land in Brevard County during the 1960s. Lynne Bumpus, *Apollo 11, 25th Anniversary: Launch Bought Exciting Days, Bulging Cities*, ORLANDO SENTINEL, July 16, 1994. As one commentator noted:

The engineers, technicians and assorted other workers who dribbled into the area just west of Cape Canaveral in the late 1950s and early 1960s were entering a county where the population had topped out at a little more than 20,000 people. Today, Brevard County's population exceeds 400,000. Titusville had only one gas station and only 4,500 people living in what were actually three towns—Titusville, Indian River City and Whispering Hills. Within three decades, the area had grown to more than 45,000 people [O]nce President John F. Kennedy made the commitment in May 1961 to put an astronaut on the moon by the end of the decade, people poured in.

Id.

As NASA and its supporting high tech industries grew, so too did the value of coastal property in Brevard County. Ballingrud, *supra* note 83, at 1B ("What's been good for NASA over the years has been good for Florida's space coast."). Hence, much of the appreciation in the value of coastal lands was a direct result of the presence of NASA, which could not have located in Brevard County but for the Canaveral Harbor Project. *See supra* note 82. Those that bought coastal land in Brevard County may have been burdened by erosion as of the 1960s. Nevertheless, the burden of erosion was significantly outweighed by the economic benefits bestowed on Brevard County landowners by virtue of the Canaveral Harbor Project and NASA. *See infra* notes 226-30 and accompanying text.

89. *See* Defendant's Consolidated Cross-Motion for Summary Judgment and Response to Plaintiff's Motions for Partial Summary Judgment at Exhibit B, p.6, *Applegate v. United States*, No. 92-832-L (Fed. Cir. 1996).

90. 457 F.2d 975 (Ct. Cl. 1972), *overruled in part Owen I*, 851 F.2d 1404 (Fed. Cir. 1988).

91. *Id.* Mr. Pitman is a plaintiff in the *Applegate* litigation as well. *Applegate v. United States*, 28 Cl. Ct. 554, 563 (1993), *rev'd*, 25 F.3d 1579 (Fed. Cir. 1994).

92. *Pitman*, 457 F.2d at 977. *Accord Sanguinetti v. United States*, 264 U.S. 146, 149 (1924) (holding that the government was not liable for damages where overflow was not the direct result of canal construction and where there was no permanent physical invasion amounting to more than mere injury to the property); *Southern Pac. Co. v. United States*, 58 Ct. Cl. 428 (Fed. Cir. 1923), *aff'd*, 266 U.S. 586 (1924) (holding that where the ocean eroded private land as the result of a jetty or breakwater, injury was consequential and the government was not liable for damages).

93. 350 U.S. 222, 224-25 (1956).

property interest in floating sand, the value of which inhered in the federal government's navigational servitude.⁹⁴ In 1988, however, the Federal Circuit partially overruled *Pitman* in *Owen v. United States (Owen I)*.⁹⁵

With *Pitman* no longer in full effect, suit was commenced in 1992 against the United States Army Corps of Engineers for exactly the same claim that was rejected in 1972. Hence, *Applegate v. United States*⁹⁶ was born.

B. The Statute of Limitations Issue

The *Applegate* plaintiffs⁹⁷ filed their complaint in the Court of Federal Claims in late 1992 seeking hundreds of millions of dollars for the taken sand and for the cost of building a sand transfer facility to replenish eroded sand.⁹⁸ Shortly thereafter, the United States Department of Justice, representing the United States and the Army Corps of Engineers, filed a motion to dismiss the complaint for lack of jurisdiction and for untimely filing under the six year statute of limitations.⁹⁹

The plaintiffs, relying on the "stabilization doctrine" of *United States v. Dickinson*,¹⁰⁰ argued that the statute of limitations should be

94. *Pitman*, 457 F.2d at 978.

95. 851 F.2d 1404, 1412-14 (Fed. Cir. 1988). As will be discussed later, the part of *Pitman* that remained good law after *Owen I* should still bar most recovery in *Applegate*. See *infra* notes 180-83 and accompanying text.

96. 28 Cl. Ct. 554 (1993), *rev'd*, 25 F.3d 1579 (Fed. Cir. 1994).

97. There are now 320 plaintiffs in the litigation and the number appears to be growing by the day. See Defendant's Proposed Protocol for the Selection of Test Cases/Plaintiffs at 2-3, *Applegate v. United States*, 28 Cl. Ct. 554 (1993), (No. 92-832-L) [hereinafter Defendant's Proposed Protocol].

98. *Applegate v. United States*, 28 Cl. Ct. 554, 557 (1993), *rev'd*, 25 F.3d 1579 (Fed. Cir. 1994).

99. *Applegate v. United States*, 25 F.3d 1579, 1581 (Fed. Cir. 1994). Takings claims against the federal government for damages must generally be brought within six years in the Court of Federal Claims. 28 U.S.C. § 2501 (1994). The pleader may make a motion to dismiss for lack of subject matter jurisdiction under FED. R. CIV. P. 12 (b)(1).

When the United States does not provide compensation through eminent domain procedures, the Tucker Act, 28 U.S.C. § 1491 (1988), operates to enforce landowner's compensatory right. Thus, the landowners' claim properly lies within the jurisdiction of the Court of Federal Claims under the Tucker Act.

Applegate, 25 F.3d at 1581 (citations omitted).

100. 331 U.S. 745, 749 (1947) (holding that recurrent flooding of property as the result of dam backwater was a taking, and that the statute of limitations did not bar the claim because property owner could wait until recurrent damage stabilized before filing takings claim). The doctrine announced in *Dickinson* essentially posits that in cases of recurrent flooding and erosion, a plaintiff is not required to resort to piecemeal litigation to avoid being barred by the statute of limitations. *Id.*

When the degree of damage is difficult to assess, the statute of limitations is tolled because:

tolled.¹⁰¹ The Court of Federal Claims rejected the plaintiffs' arguments and granted the motion,¹⁰² reasoning that plaintiffs knew or should have known of the erosion damage by the mid-1960s and should have recognized that their injury would only continue.¹⁰³

The Federal Circuit reversed, holding that the *Dickinson* stabilization doctrine was properly invoked by the plaintiffs.¹⁰⁴ Specifically, the Federal Circuit observed: "In this case . . . the continuous physical taking process is very gradual. The shoreline is slowly receding over a period of years. Moreover, the almost imperceptible physical process has delayed detection of the full extent of the destruction—a necessary precondition of striking a final account."¹⁰⁵ The Federal Circuit also found that alleged representations made by the Corps of Engineers further prohibited the government from asserting the statute of limitations.¹⁰⁶ Potentially more ominous for the government was the dicta utilized by Judge Rader in remanding the case to the district court. In his concluding statement, Judge Rader opined that "[t]hese landowners, suffering an ongoing gradual, physical taking, need not risk premature litigation."¹⁰⁷

[i]f suit must be brought . . . as soon as . . . land is invaded, other contingencies would be running against [the landowner]—for instance, the uncertainty of the damage and the risk of res judicata against recovering later for damage as yet uncertain An owner of land flooded by the Government would not unnaturally postpone bringing a suit against the Government for the flooding until the consequences of inundation have so manifested themselves that a final account may be struck.

Id.

101. *Applegate*, 28 Cl. Ct. at 565.

102. *Id.*

103. *Id.* at 563. The court found particularly persuasive the fact that one of the *Applegate* plaintiffs, Robert Pitman, had himself sued the federal government for the same cause of action in 1970. *Id.*

104. *Applegate*, 25 F.3d at 1584.

105. *Id.* at 1582.

106. *Id.* ("The Corps itself has held forth the promise of a sand transfer plant for years. Authorized in 1962 and proposed again in 1988, the sand transfer plant would reverse the continuous erosion process.")

107. *Id.* at 1584. It is not difficult to see what result Judge Rader is expecting on remand. Fortunately for the Justice Department, if *Applegate* comes back to the Federal Circuit on its merits, the case will probably not be reviewed by the same panel as that which heard the statute of limitations issue. Compare *Applegate*, 25 F.3d at 1580 (Judges Michel, Plager, and Rader) with *Applegate v. United States*, 1996 WL 34821 (Fed. Cir. 1996) (Judges Newman, Clevenger, and Rader).

C. *The First Step Down the Slippery Slope*

The Federal Circuit truly stretched to invoke the *Dickinson* stabilization doctrine in *Applegate*.¹⁰⁸ If *Dickinson* only requires that a property owner be allowed to wait until “consequences of inundation have so manifested themselves that a final account may be struck,”¹⁰⁹ then it is difficult to see how this manifestation did not occur in 1970, when Robert Pitman filed suit against the federal government for an identical claim.¹¹⁰ Mr. Pitman’s claim was ripe when he filed it. Indeed, evidence of erosion was significant in 1970.¹¹¹ Nothing changed so dramatically between 1970 and 1992 that the consequences of the governmental action became ascertainable. The property damage that occurred between 1970 and 1992 was of the same type that the plaintiffs and Mr. Pitman claimed to have noticed by the mid-1960s.¹¹² If, as the Federal Circuit’s dicta in *Applegate* indicates,¹¹³ *Dickinson* requires beach erosion to completely “stabilize” before plaintiffs can settle a “final account” with the government, then the *Applegate* plaintiffs’ claim merits dismissal as unripe.¹¹⁴

Moreover, statements that the Corps of Engineers may have made regarding potential construction of a sand-transfer plant are irrelevant to the accrual of the statute of limitations because the plaintiffs had knowledge of their claim.¹¹⁵ The statute of limitations should not have been tolled because “[m]isstatements, opinions, and even outright fabrications do not toll a claim where plaintiff is on notice or the alleged injury is not inherently unknowable.”¹¹⁶

Under the Federal Circuit’s interpretation of the statute of limitations in *Applegate*, the federal government is unlikely to gain repose

108. Diligent research has not produced a case in any jurisdiction where a court was willing to toll an inverse condemnation statute of limitations for anything approaching forty years.

109. *United States v. Dickinson*, 331 U.S. 745, 749 (1947).

110. *Pitman v. United States*, 457 F.2d 975 (Ct. Cl. 1972), *overruled in part Owen I*, 851 F.2d 1404 (Fed. Cir. 1988).

111. *Pitman*, 457 F.2d at 978.

112. *Applegate v. United States*, 28 Cl. Ct. 554, 563 (1993), *rev’d*, 25 F.3d 1579 (Fed. Cir. 1994).

113. *Applegate v. United States*, 25 F.3d 1579, 1582-83 (Fed. Cir. 1994).

114. The *Applegate* plaintiffs know no more now about the “permanent” extent of their injury than they did in 1970. If stabilization of the plaintiffs’ injury has not yet occurred, then their action is not yet ripe for adjudication. See Defendant’s Proposed Protocol, *supra* note 97, at 9; cf. *Fallini v. United States*, 56 F.3d 1378, 1381 (Fed. Cir. 1995) (refusing to broaden the *Dickinson* doctrine where an unending conflict with the statute of limitations would result).

115. *Applegate v. United States*, 28 Cl. Ct. 554, 563 n.9 (1993), *rev’d*, 25 F.3d 1579 (Fed. Cir. 1994). See *United States v. Kubrick*, 444 U.S. 111, 123 (1979) (holding that the accrual of claim was not postponed where the plaintiff knew of the injury, but had only to discover whether injury was negligently inflicted by the government agency).

116. *Kubrick*, 444 U.S. at 123.

from claims of takings by beach erosion. Presumably, plaintiffs could wait an infinite period, or until every piece of sand has eroded from their beach, before filing a claim for compensation. Taking the *Applegate* court's evaluation of the statute of limitations issue to its logical extreme, any landowner throughout the United States with an eroding beach, which could conceivably be linked to federal government action, could bring an action for compensation against federal taxpayers.¹¹⁷ The time that the government action occurred, whether during the 1930s, the American Civil War, or beyond, would be irrelevant.¹¹⁸ Congress created the six year Tucker Act limitations period to prevent these exact scenarios.¹¹⁹

Over the past two hundred years, the federal government, the individual states, and local communities have constructed numerous jetties, groins and sea walls to aid navigation.¹²⁰ Such navigational improvements have caused erosion similar to the erosion affecting the plaintiffs in *Applegate* around the country.¹²¹ If the resolution of the statute of limitations issue in *Applegate* is interpreted literally, the courts will soon be overflowing, and "inverse condemnation" will become a household term for the federal taxpayer.¹²²

D. Towards Trial on the Merits

Applegate is expected to go to trial on its merits during the Fall of 1996.¹²³ Setting the Federal Circuit's dicta aside, the *Applegate* plaintiffs must prove a great deal to prevail on the merits of their physical takings claim. The plaintiffs essentially must prove three

117. See *Applegate*, 28 Cl. Ct. at 565 ("A decision from [this] court countenancing plaintiffs' theory would open [this] court to a deluge of stale claims. Of course, this is precisely what the congressionally mandated limitations period seeks to prevent.").

118. See generally discussion *supra* pp. 1-3.

119. *Kubrick*, 444 U.S. at 117 (stating that statutes of limitations "represent a pervasive legislative judgment that it is unjust to fail to put the adversary on notice to defend within a specified period of time and that 'the right to be free of stale claims in time comes to prevail over the right to prosecute them'" (citations omitted)).

120. See generally WALLACE KAUFMAN & ORRIN H. PILKEY, JR., *THE BEACHES ARE MOVING: THE DROWNING OF AMERICA'S SHORELINE 195-205* (1983); Tony Boylan, *Homeowners Blame Port Canaveral Jetties for Problem*, FLA. TODAY (Melbourne, Fla.), Sept. 24, 1995, at 8A.

121. See generally PILKEY, *supra* note 86, at 42-45 for a discussion of the extensive use of jetties and other erosion causing coastal engineering on the East Coast of Florida.

122. The Federal Circuit may have recognized that it implicitly eviscerated the Tucker Act statute of limitations in *Applegate*, and accordingly, may narrow *Applegate* to its facts. See, e.g., *Fallini v. United States*, 56 F.3d 1378 (Fed. Cir. 1995) (where wild horses had been drinking plaintiffs' water continuously since 1972, *Applegate* did not apply because plaintiffs were aware of the permanent nature of the damage many years before filing their claim); *Alaska v. United States*, 32 Cl. Ct. 689, 700 (1995) (in the absence of a gradual physical encroachment caused by the government, *Applegate* does not apply).

123. Boylan, *supra* note 4, at 9A.

things. First, they must demonstrate that they have a property interest (compensable expectancy) in the littoral drift sand for which they allege the government has deprived them.¹²⁴ Then they must face the difficult burden of proving that the Canaveral Harbor Project was the direct and proximate cause of their taken compensable expectancy.¹²⁵ If the plaintiffs satisfy these two steps, then the plaintiffs then must convince the court that a permanent physical occupation has occurred before they can take advantage of the *Loretto* per se taking rule.¹²⁶ If the court finds that a temporary taking, instead of a permanent physical taking, has occurred, then the plaintiffs may not fall within the per se rule of *Loretto*.¹²⁷

IV. A PROPERTY INTEREST IN SAND

To state a takings claim under the Fifth Amendment, a claimant must "demonstrate ownership or title" in an economic expectancy "at the time of the taking."¹²⁸ A property interest must be demonstrated whether the claim is characterized as a physical or regulatory taking.¹²⁹

The *Applegate* plaintiffs' property injury is beach erosion allegedly caused by the federal government. However, even the plaintiffs would concede that the federal government did not physically inundate the plaintiffs' beaches, washing away their sand. To have precipitated a traditionally defined physical invasion, as contemplated by *Cress*¹³⁰ and *Dickinson*,¹³¹ the federal government would have to have raised the ocean level or altered the course of beach waters causing flooding of the plaintiffs' beaches.¹³² This dramatic oceanic

124. See *Avenal v. United States*, 33 Cl. Ct. 778, 785 (1995); *Fallini v. United States*, 31 Cl. Ct. 53, 57 (1994), *vacated on other grounds* 56 F.3d 1378 (Fed. Cir. 1995).

125. See *Owen II*, 20 Cl. Ct. 574, 583 (1990).

126. *Loretto v. Teleprompter Manhattan CATV Corp.*, 458 U.S. 419 (1982). Judge Rader's dicta in *Applegate* indicates that he may consider this case to be a temporary taking. *Applegate*, 25 F.3d 1579, 1582-83 (Fed. Cir. 1994) ("With a sand transfer plant in place, the landowners would encounter little, if any, permanent destruction of their shoreline property Of course, installation of the sand transfer plant will not eliminate the Government's obligation to compensate the landowners if the erosion amounts to a temporary physical taking.").

127. See *infra* notes 220-25 and accompanying text.

128. *Fallini*, 31 Cl. Ct. at 57 (holding that there is no ownership right in water on public land where a landowner sued for a taking caused by wild horses drinking water on grazing allotment).

129. *Avenal v. United States*, 33 Cl. Ct. 778, 784-85 (1995).

130. 243 U.S. 316 (1917).

131. 331 U.S. 745 (1947).

132. See *Pitman v. United States*, 457 F.2d 975, 977 (Ct. Cl. 1972), *overruled in part Owen I*, 851 F.2d 1404 (Fed. Cir. 1988). At a minimum, to recover for a direct taking of part of their fee interest, plaintiffs would have to prove that the federal government redirected the ocean current so that it artificially fell with particular force against their properties. See *Southern Pac.*

effect did not happen, and the *Applegate* plaintiffs do not contend that it did. Thus, in the traditional sense, none of the plaintiffs' fee ownership was literally "taken" by the federal government.

This does not end the inquiry, however. The plaintiffs allege a taking of littoral "river of sand," arguing that their beaches would have been replenished with sand "but for" the navigational improvements constructed by the Corps of Engineers.¹³³ Thus, the plaintiffs never possessed the property interest that they alleged was taken. This lack of physical possession does not preclude the plaintiffs from having a protectable property interest, but the plaintiffs' burden is significantly more difficult. The plaintiffs must prove a "compensable expectancy"¹³⁴ in the obstructed beach sand that never reached them.

The plaintiffs argue that as beach-front property owners, they have an economic expectancy in receiving the allegedly obstructed river of sand.¹³⁵ Case law clarifies, however, that not every economic expectancy is a constitutionally protected property interest.¹³⁶ Only those economic interests that have the law to back them are compen-

Co. v. United States, 58 Ct. Cl. 428 (1923), *aff'd*, 266 U.S. 586 (1924) (holding that where the ocean erodes private land as the result of jetty or breakwater, the injury is consequential and the government is not liable for damages). If such a showing were made, their chances of compensation would be uncertain. *Id.* See also *Paty v. Town of Palm Beach*, 29 So. 2d 363 (Fla. 1947) (finding no compensable taking where erosion of plaintiff's property was directly caused by the City of Palm Beach's construction of a groin).

133. See *Applegate v. United States*, 28 Cl. Ct. 554, 556-57 (1993), *rev'd*, 25 F.3d 1579 (Fed. Cir. 1994).

134. The United States Claims Court in *Broughton Lumber Co. v. United States*, 30 Cl. Ct. 239, 243 (1994) explained what a "compensable expectancy" is. Specifically, "[o]ne who claims a taking of an expectancy rooted in a property right must show that the expectancy is reasonable in order to receive compensation. The expectancy must be fortified by law" *Id.* See also *Webb's Fabulous Pharmacies, Inc. v. Beckwith*, 449 U.S. 155, 161 (1980) ("A mere unilateral expectation or an abstract need is not a property interest entitled to protection."); JEREMY BENTHAM, *THE THEORY OF LEGISLATION* 68, 69 (C.K. Ogden ed., Richard Hildreth Trans., 1975).

The idea of property consists in an established expectation; in the persuasion of being able to draw such or such an advantage from the thing possessed, according to the nature of the case. Now this expectation . . . can only be the work of law. I cannot count upon the enjoyment of that which I regard as mine, except through the promise of the law which guarantees it to me.

Id.

135. *Applegate*, 28 Cl. Ct. at 556.

136. See *United States v. Willow River Power Co.*, 324 U.S. 499, 502 (1945) ("[N]ot all economic interests are 'property rights'; only those economic advantages are 'rights' which have the law [sic] back of them, and only when they are so recognized may courts compel others to forbear from interfering with them or to compensate for their invasion."). See also *Kaiser Aetna v. United States*, 100 S. Ct. 383, 392 (1979); *Atlas Corp. v. United States*, 895 F.2d 745, 756 (Fed. Cir.), *cert. denied*, 498 U.S. 811 (1990); *Ballam v. United States*, 806 F.2d 1017, 1020 (Fed. Cir. 1986), *cert. denied*, 481 U.S. 1014 (1987), *overruled on other grounds Owen I*, 851 F.2d 1404 (Fed. Cir. 1988); *Acton v. United States*, 401 F.2d 896, 900 (9th Cir. 1968), *cert. denied*, 895 S. Ct. 1003 (1969).

sable property interests that will support a takings claim.¹³⁷ To determine which economic expectations have the “law in back of them,” the Supreme Court in *Lucas v. South Carolina Coastal Council*¹³⁸ directed that courts examine “existing rules or understandings that stem from an independent source such as state law” to define the various interests that demand for protection as property.¹³⁹ *Lucas* further elaborated that courts must consider pre-existing limitations on property, whether grounded in state or federal law, when determining property expectations.¹⁴⁰ Hence, the navigational servitude doctrine must be considered in conjunction with state law in determining the extent, if any, of the *Applegate* plaintiffs’ compensable expectancies.¹⁴¹

The time when the property is acquired must also be considered in evaluating the scope of a compensable expectancy attached to property. A landowner’s compensable ownership interest inheres in property on the date when the landowner’s title is granted.¹⁴² Thus, to prove a compensable expectancy in the obstructed river of sand, the *Applegate* plaintiffs must demonstrate a reasonable expectation, supported by both state and federal law, to continuously receive the river of sand from the time they took title to their beach-front properties.¹⁴³

As *Lucas* directs, the *Applegate* plaintiffs must rely on Florida law to demonstrate a property interest in the allegedly taken beach sand.¹⁴⁴ This inquiry invokes an analysis of the “public trust doctrine”¹⁴⁵ and its scope under Florida law.

137. *Id.*; cf. BENTHAM, *supra* note 134, at 69 (“Property and law are born together, and die together. Before laws were made there was no property; take away laws, and property ceases.”); Frank I. Michelman, *Property, Federalism, and Jurisprudence: A Comment on Lucas and Judicial Conservatism*, 35 WM. & MARY L. REV. 301, 308-11 (1993).

138. 505 U.S. 1003 (1992).

139. *Id.* at 1030.

140. *Id.* at 1028-29. (“[W]e assuredly would permit the government to assert a permanent easement that was a pre-existing limitation upon the landowner’s title.”) (citing *Scranton v. Wheeler*, 179 U.S. 141, 163 (1900), where a riparian owner’s interest in lands juxtaposed to public navigable water was held subject to the government’s navigable servitude).

141. *See id.* at 1029.

142. *See Loveladies Harbor, Inc. v. United States*, 28 F.3d 1171, 1183 (1994).

143. *See id.* at 1178-79.

144. *See Lucas*, 505 U.S. at 1027-29.

145. “The public trust doctrine is a state doctrine somewhat analogous to the federal navigation servitude in that it recognizes public rights in private property—most often property underlying navigable waters.” Hunter, *supra* note 66, at 367.

A. *Florida Law and the Public Trust Doctrine: Who Owns the Sand in Florida?*

Article X, section 11 of the Florida Constitution provides that “[t]he title to lands under navigable waters, within the boundaries of the state, which have not been alienated, including beaches below mean high water lines, is held by the state, by virtue of its sovereignty, in trust for all the people.”¹⁴⁶

Before the adoption of the 1968 Florida Constitution, article X, section 11 was not codified, but was nevertheless the law of the state per the Florida Supreme Court and common law.¹⁴⁷ Hence, Florida, since statehood, has owned all land, including sand, drifting or otherwise, up to the mean high water line, unless the land was specifically leased or sold to private interests.¹⁴⁸ Thus, plaintiffs’ river of sand, which exists below the mean high water line, is clearly in the public trust.

Under limited circumstances, Florida has recognized property rights in littoral sand against the government in the context of accretions.¹⁴⁹ In *Trustees of the Internal Improvement Trust Fund v. Sand Key Associates*, the court argues that “he who sustains the burden of losses and of repairs, imposed by the contiguity of waters, ought to receive whatever benefits they may bring by accretion,” thus describing one of the public policy justifications behind vesting accretions in upland owners.¹⁵⁰ The upland owner will always gain title to accretions in Florida, as long as that owner did not artificially cause the accretion.¹⁵¹

Sand Key Associates illustrates the extent of the *Applegate* plaintiffs’ property interests in drift sand under Florida law, and indicates that drifting sand is strictly a public good to be maintained in the public

146. FLA. CONST. art. X, § 11.

147. *Hayes v. Bowman*, 91 So. 2d 795, 799 (Fla. 1957) (“[I]t is well settled in Florida that the State holds title to lands under tidal navigable waters and the foreshore thereof (land between high and low water marks). As at common law, this title is held in trust for the people for purposes of navigation, fishing, bathing and similar uses.”).

148. *Id.* There is no indication that any pertinent lease or sale of state sovereignty lands occurred prior to *Applegate*.

149. *Trustees of the Internal Improvement Trust Fund v. Sand Key Assoc.*, 512 So. 2d 934 (Fla. 1987). The court held that:

[T]he riparian or littoral owner has a vested right to new lands formed as a result of . . . accretion[s] The fact that such accretions . . . occurred in part because of artificial improvements does not affect the owner’s title to those lands provided the owner has not constructed the improvements which caused the accretions.

Id. at 938.

150. *Id.* at 937 (quoting *Banks v. Ogden*, 69 U.S. 57, 67 (1864)).

151. *Id.* at 938. Upland owners do not gain title under such circumstances because “to permit the riparian owner to cause accretion himself would be tantamount to *allowing him to take state land.*” *Id.* (quoting *Trustees of the Internal Improvement Trust Fund v. Medeira Beach Nominee, Inc.*, 272 So. 2d 209, 212 (Fla. 2d DCA 1973)) (emphasis added).

trust. If this were not true, then the court would not consider self-created accretions a taking of state lands. Moreover, vesting the accretion in the upland owner implicitly compensates the owner for the erosion that might occur in the future, perhaps as a result of governmental action.¹⁵²

A property right in drift sand is inconsistent with the rule that accretions vest in the upland property owner. In *Trustees of the Internal Improvement Trust Fund v. Medeira Beach Nominee, Inc.*,¹⁵³ as in *Applegate*, a public works project obstructed drifting sand, causing an accretion on one side of a public work and erosion on the other.¹⁵⁴ The court held that the upland property owner gained title to the accretion caused by the public work.¹⁵⁵ If Florida recognized a property interest in drift sand, this holding would not have been possible. Under such an approach, the owners of the accreted sand would be those downstream littoral owners suffering erosion because they would have received the sand "but for" the obstruction by the public work. If vested rights existed in drift sand, arguably the state would owe compensation to upland owners every time it prevented an accretion from forming. This is clearly not the law in Florida.

Unfortunately for the *Applegate* plaintiffs, Florida is one of only a few states to adopt the "common enemy" doctrine vis-à-vis governmentally-induced erosion.¹⁵⁶ In *Paty v. Town of Palm Beach*,¹⁵⁷ a case similar to *Applegate*, the town of Palm Beach erected a groin and seawall to prevent the ocean from washing out city property.¹⁵⁸ The Florida Supreme Court recognized that the groin changed "the natural action and the currents of the ocean so as to cause them to whip around to the south of the groin and to beat against and to excessively wash away plaintiff's land"¹⁵⁹ Nevertheless, the court held that

152. See *Medeira Beach Nominee*, 272 So. 2d at 213.

153. *Id.* at 209.

154. *Id.* at 211.

155. *Id.* at 209.

156. *Paty v. Town of Palm Beach*, 29 So. 2d 363 (Fla. 1947) ("The waters of the sea are usually considered a common enemy."). The "Common Enemy Doctrine" is a creation of the common law which recognizes that the ocean is a common enemy to all landowners, be it the government or private owner. See *The King v. Commissioners of Sewers for the Levels of Pagham*, 8 B. & C. 355, 360 (1828). Accordingly, the doctrine posits that any littoral "landowner may use every precaution not unreasonable to avert damage to his land." *Katenkamp v. Union Realty*, 93 P.2d 1035, 1039 (Cal. 2d Dist. Ct. App. 1939) (reviewing the common law background of the common enemy doctrine but holding the doctrine inapplicable where the defendant was found to be in bad faith).

157. 29 So. 2d 363 (Fla. 1947).

158. *Paty*, 29 So. 2d at 363.

159. *Id.*

the plaintiff had stated no claim for a taking.¹⁶⁰ "The waters of the sea are usually considered a common enemy."¹⁶¹ Therefore,

Any injury or damage which is occasioned by the [government's] doing of a lawful act . . . in the authorized way, is *damnum absque injuria* [a non-compensable injury]. Damage resulting from such an act, to be actionable, must be coupled with some negligence or misconduct, or the act must have been done at a time, or in a manner . . . which render the [state] actor chargeable with want of proper regard for the rights of others. In doing a lawful thing in a lawful way no legal right is invaded, although the act may result in damage to another.¹⁶²

Paty's holding, that damages suffered by littoral owners as a result of public works are generally unrecoverable, and *Paty's* implicit adoption of the common enemy doctrine, bring doubt upon any claim by the *Applegate* plaintiffs that Florida law recognizes a property interest in drift sand against the compelling needs of the government. If under *Paty* the government can alter the current of the ocean, resulting in the liability-free destruction of a privately owned beach, then it is illogical to argue that the government cannot protect public works by the erection of jetties that inadvertently block littoral sand drift and cause a slow process of erosion. Thus, *Paty* indicates that the *Applegate* plaintiffs do not have a compensable expectation of continued sand drift under Florida law.¹⁶³

Moreover, recognizing a private expectation in a public good, like drift sand, would undermine the very foundation of the public trust doctrine. Consider an analogy to another public good, fish populations in Florida waters. The state owns both drifting sand and fish as public goods in trust for the people.¹⁶⁴ Making a certain quantity of drifting sand a protectable property interest under Florida law would be the functional equivalent of granting fishers a property interest in the number of fish they can catch. In both scenarios, littoral

160. *Id.* at 363-64.

161. *Id.* at 364.

162. *Id.*

163. Even if one argues that *Paty* is in conflict with decisions like *Pumpelly*, the compensable expectancy analysis remains unchanged. Since *Paty* is good law, and none of the plaintiffs took title to their land before 1947, see Appendix A, all of the *Applegate* plaintiffs took title to their respective properties during a time when *Paty* was the law of the state. Hence, plaintiffs' compensable expectancies in their properties were limited by *Paty* on the day they took title. See *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003, 1029 (1992). Accordingly, whether *Paty* will remain good law in the future is inapposite to the question of compensable expectancy.

164. See *Foster-Fountain Packing Co. v. Haydel*, 278 U.S. 1, 11 (1928) (affirming the proposition that marine animals are the property of the several states, as sovereigns of the people).

owners and fishers would have come to expect a certain quantity of the public good over time. If property interests were recognized in public goods, like fish and sand, the owners (fishers and littoral owners) of the "property interests" could sue to prevent the state from changing the supply of the public good without providing compensation.¹⁶⁵ The government would be forced to protect the interests of these pseudo "property owners," even if such interests conflicted with the needs of the public. This, of course, indirectly contravenes "the purposes of the [public] trust [doctrine], to wit: the service of the people."¹⁶⁶ The law clearly states that where an economic interest falls within the public trust doctrine, ownership of that economic interest is "that of the people in their united sovereignty,"¹⁶⁷ and such ownership is not to be exercised for the benefit of private individuals as distinguished from the public good.¹⁶⁸

B. Principles of Federal Law: The Navigational Servitude Doctrine

Lucas, and the cases that have interpreted it, direct that the federal navigational servitude is a pre-existing limitation on littoral property requiring consideration when determining the extent of beach-front property rights.¹⁶⁹ The navigational servitude, as previously discussed, vests in the federal government a right to use all lands below the high water mark (or mean high tide line).¹⁷⁰ Assuming, *arguendo*, that the *Applegate* plaintiffs could demonstrate a Florida law property right in the "river of sand," unobstructed by the public trust doctrine, they would still need to prove that the federal government's "dominant servitude" in navigable waters had not preempted the state property right.¹⁷¹

165. Hence, the state could not build a jetty without providing compensation for the consequent decrease in littoral drift sand, nor pass a regulation which restricted the number of fish that could be caught, without providing compensation for the decrease in fish.

166. *Hayes v. Bowman*, 91 So. 2d 795, 799 (Fla. 1957).

167. *Foster Fountain*, 278 U.S. at 11 (citing *Geer v. Connecticut*, 161 U.S. 519, 529 (1896)).

168. *Id.*

169. *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003, 1028-29 (1992) (citing *Scranton v. Wheeler*, 179 U.S. 141 (1900)). See also *United States v. Twin City Power Co.*, 350 U.S. 222, 224-25 (1956) ("[T]he power [of the servitude] is a dominant one which can be asserted to the exclusion of any competing or conflicting one."); *Scranton*, 179 U.S. at 145 (holding that in the context of lands subject to the navigational servitude, "[t]he plaintiff holds the naked legal title, and with it he takes such proprietary rights as are consistent with the public right of navigation and the control of Congress over that right").

170. *United States v. Chicago, M., St. P. & P. R.R.*, 312 U.S. 592, 596-97 (1941).

171. See, e.g., *Lewis Blue Point Oyster Cultivation Co. v. Briggs*, 229 U.S. 82, 89 (1913) (holding that a landowner may, pursuant to state law, hold title to submerged lands under navigable waters, but title is qualified because it is subordinate to the federal right of navigation); *Scranton v. Wheeler*, 179 U.S. 141, 144 (1900).

A case with similar facts to *Applegate, Pitman v. United States*, assessed the extent of the navigational servitude doctrine.¹⁷² The holding in *Pitman* is essentially two-pronged. First, *Pitman*, relying on cases like *Southern Pacific Co. v. United States*,¹⁷³ held that any interruption of littoral flow below the high water mark that causes damage to lands above the high water mark, without entry on the land by the federal government, yields a strictly consequential and thus non-compensable injury.¹⁷⁴ Second, *Pitman* relied on the Supreme Court's decision in *United States v. Twin City Power Co.*¹⁷⁵ to reject recovery on the grounds that littoral drift sand was present solely due to the uninterrupted "flow" of the ocean and was thus non-compensable if taken away by the government.¹⁷⁶ The consequential damage ground was *Pitman's* first justification, and was later overruled in *Owen I*.¹⁷⁷

Owen I arose in a very different context than *Pitman*. In *Owen I*, the federal government conducted substantial dredging and widening of the Tombigbee River. Shortly after the navigational changes to the river were made, the plaintiff's home tumbled into the river, allegedly a victim of erosion below the high water mark.¹⁷⁸ The plaintiff brought suit alleging inverse condemnation. The Court of Claims dismissed the complaint on the basis of *Pitman*, reasoning that any damaging erosion would have occurred below the high water mark, and was thus consequential and non-compensable under *Pitman*.¹⁷⁹

The Federal Circuit reversed, holding that governmentally-induced erosion below the high water mark, which consequentially results in damage to fast lands, can be recoverable.¹⁸⁰ Hence, *Owen I* overruled *Pitman* only as to the issue of consequential damages above the high water mark.¹⁸¹ Moreover, *Owen I* specifically acknowledged

172. 457 F.2d 975 (Ct. Cl. 1972), *overruled in part Owen I*, 851 F.2d 1404 (Fed. Cir. 1988).

173. 58 Ct. Cl. 428 (1923), *aff'd*, 266 U.S. 586 (1924).

174. *Pitman*, 457 F.2d at 977.

175. 350 U.S. 222, 225-26 (1956).

176. *Pitman*, 457 F.2d at 978.

177. 851 F.2d 1404 (Fed. Cir. 1988).

178. *Id.* at 1406.

179. *Id.*

180. *Id.* at 1411-12.

181. See Brief for Appellee at 28 n.6, *Applegate v. United States*, 25 F.3d 1579 (Fed. Cir. 1994) (No. 93-5180). Arguably, the holding in *Owen I* directly contravened Supreme Court precedent. See generally *Sanguinetti v. United States*, 264 U.S. 146, 149 (1924); *Bedford v. United States*, 192 U.S. 217 (1904), *Southern Pac. Co. v. United States*, 58 Ct. Cl. 428 (1923), *aff'd*, 266 U.S. 586 (1924); see also Reply to Plaintiffs' Response to Motion to Dismiss at 17 n.3, *Applegate v. United States*, 28 Ct. Cl. 554 (Fed. Cir. 1994) (No. 93-5180) ("*Owen* is contrary to weight of Supreme Court authority, and any further review in *Owen* was mooted by the inability of the plaintiff there to establish damages caused by the government.").

that the second basis for the *Pitman* decision was still good law as it applied to the facts of *Pitman*.¹⁸²

Thus, after *Owen I*, the law remains clear that the compensable expectancies of littoral property owners do not include economic values that are inherent in the navigational servitude.¹⁸³ Hence, the *Applegate* plaintiffs cannot demonstrate a property interest in the obstructed drift sand, because without the flow of a navigable water, the Atlantic Ocean, *no sand* would ever reach the plaintiffs' beaches.

The United States Supreme Court cases forming the bedrock of the navigational servitude doctrine best illustrate the plaintiff's inability to demonstrate a property interest. Cases such as *Scranton v. Wheeler*,¹⁸⁴ *Gibson v. United States*,¹⁸⁵ *Transportation Co. v. Chicago*¹⁸⁶ and *United States v. Commodore Park, Inc.*¹⁸⁷ stand for the proposition that the United States, pursuant to its navigational servitude, may not only alter the flow of a navigable stream without incurring liability,¹⁸⁸ but may cut off access to the navigable stream outright without owing compensation.¹⁸⁹ Thus, under this precedent, if the United States needed to do so, it could theoretically cut off the flow of the Atlantic Ocean to the *Applegate* plaintiffs without owing compensation for the loss of access to navigable waters and the values inherent in the flow.

182. *Owen I*, 851 F.2d at 1413 (“[T]he Court of Claims in *Pitman* was not incorrect in relying on the Supreme Court’s decision in *United States v. Twin City Power Co.* to reject recovery since the shoreland sand was present solely due to the uninterrupted ‘flow’ of the ocean . . .”).

183. *See id.* *See also* *United States v. Twin City Power Co.*, 350 U.S. 222, 225-26 (1956); *United States v. Appalachian Elec. Power Co.*, 311 U.S. 377, 424 (1940) (“The flow of a navigable stream is in no sense private property”); *United States v. Chandler-Dunbar Water Power Co.*, 229 U.S. 53, 70-76 (1913) (“The Government . . . cannot be required to pay any hypothetical additional value to a riparian owner who had no right to appropriate the current to his own commercial use.”)

184. 179 U.S. 141 (1900) (holding that the federal government may build a pier cutting off riparian owner’s access to navigable water without incurring liability).

185. 166 U.S. 269 (1897) (holding that the United States altering channel so as to cut off navigable landing to riparian owner was non-compensable).

It is not, however to be conceded that Congress has no power to order obstructions to be placed in the navigable waters of the United States, either to assist navigation or to change its direction *It may construct jetties. It may require all navigators to pass along a prescribed channel, and may close any other channel to their passage.*

Id. at 272 (citations omitted) (emphasis added).

186. 99 U.S. 635 (1878) (holding that the United States may completely block the flow of a navigable stream without incurring compensation liability).

187. 324 U.S. 386 (1945) (holding that the United States may destroy navigability of a formerly navigable stream outright without owing compensation).

188. *But see Owen I*, 851 F.2d 1404, 1411-12 (Fed. Cir. 1988) (United States may owe compensation if alteration of flow below high water mark directly and proximately causes damage to fast lands above the high water mark).

189. *See Scranton v. Wheeler*, 179 U.S. 141, 164-65 (1900); *United States v. Commodore Park*, 324 U.S. 386, 393 (1945); *Gibson v. United States*, 166 U.S. 269, 269 (1897); *Northern Transp. Co. v. Chicago*, 99 U.S. 635, 643 (1879).

For example, under *Scranton*, the United States could presumably construct a sea wall adjacent to the plaintiffs' properties, but below the high water mark, completely cutting off plaintiffs' access to the ocean, without owing compensation.¹⁹⁰ Likewise, under *Gibson*, the United States could construct an artificial reef fifty feet off of the plaintiff's property transforming plaintiffs' former "beach front property" into "salt marsh front" property without owing compensation.¹⁹¹ Considering these possible situations, allowing compensation for the loss of value inherent in the flow of navigable water, such as sand, would be absurd. This is especially true because the United States could constitutionally take the far more draconian measure of removing access to the navigable water outright without owing compensation. Thus, even if the *Applegate* plaintiffs could demonstrate a compensable expectancy for drift sand under state law, the manifest weight of authority indicates that the United States would owe no compensation for the obstruction of the sand.¹⁹²

Nevertheless, dicta in *Owen I* adds another factor to the equation and may provide the *Applegate* plaintiffs with their best chance of receiving partial compensation for their alleged losses.¹⁹³ *Owen I* instructed that the *Pitman* reliance on *Twin City Power* was appropriate *only to the extent that the loss of drift sand did not consequentially damage property above the mean high tide line*.¹⁹⁴ The *Owen I* decision appears to indicate that if the obstruction of replacement sand directly and proximately causes damage to non-sand property above the high water mark, such as damage to a house,¹⁹⁵ then the federal government might be liable for compensation.¹⁹⁶ However, no compensation can be demanded for erosion of the dry sand beach, regardless of the total reduction in dry sand, because the natural replacement of beach sand would not occur but for the flow of sand within the navigational servitude.¹⁹⁷

190. See *Scranton*, 179 U.S. at 141.

191. See *Gibson*, 166 U.S. at 269.

192. See *Owen I*, 851 F.2d at 1413; *United States v. Twin City Power Co.*, 350 U.S. 222, 225-26 (1956).

193. That is, of course, if the plaintiffs can demonstrate a state property interest in sand, and direct and proximate causation of their alleged injuries by the Canaveral Harbor Project.

194. *Owen I*, 851 F.2d at 1413.

195. There is evidence that at least a few of the 320 plus plaintiffs in *Applegate* sustained such damage above the high water mark. See Boylan, *supra* note 120, at 1A. If such damage is proximately caused by federal improvements in navigation, it is compensable. *Owen II*, 20 Cl. Ct. 574, 582-83 (1990).

196. *Owen II*, 20 Cl. Ct. at 583.

197. *Owen I*, 851 F.2d at 1413 ("Since the sand comprising the lost shorefront was continually being deposited and moved by the ocean's action, it necessarily lay below the ocean's high-water mark and within the bed of the ocean. As such, its loss would not entitle the riparian

V. DYNAMIC SYSTEMS AND DIRECT CAUSATION: A WEIGHTY BURDEN OF PROOF

Direct causation is the second element the plaintiffs in *Applegate* must satisfy. Plaintiffs must prove that the navigational improvements to Canaveral Harbor “were the direct and proximate cause of damage” to their alleged compensable property interests.¹⁹⁸ Showing a direct and proximate cause will not be an easy task for many of the *Applegate* plaintiffs. To demonstrate sufficient causation, they must show that their property would have been damaged but for the navigational improvements to Canaveral Harbor.¹⁹⁹ This causation prong was fatal on remand for the plaintiff in *Owen II*,²⁰⁰ and may be for some of the plaintiffs in *Applegate* as well.

The ocean is an extremely dynamic system, and on the *Applegate* plaintiffs’ properties, “the sand comprising [the] shorefront property is in a constant state of flux.”²⁰¹ The *Applegate* plaintiffs are a class of 320 property owners spanning a forty-one mile stretch of beach south of the Canaveral Harbor Project.²⁰² For those properties within a few miles of the Canaveral Harbor Project, proof of the Project’s erosion causation may be significant; for more distant properties, evidence of causation will be tenuous or non-existent.²⁰³ As was the case in *Owen II*, many interrelated factors may have contributed to the plaintiffs’ injuries in *Applegate*.

Although an observer would never guess it from the *Applegate* plaintiffs’ arguments, the drifting “river of sand,” which plaintiffs allege is obstructed by the Canaveral Harbor Project, only flows south for part of the year, during the winter and spring months²⁰⁴ During the summer, littoral drift is to the north.²⁰⁵ Because littoral drift flows

owner to compensation under any of the relevant caselaw.”) (emphasis added). *Accord*, U.S. v. Twin City Power Co., 350 U.S. 222, 225-26 (1956).

198. See also *Owen I*, 851 F.2d at 1418; *Sanguinetti*, 264 U.S. at 149-50.

199. See *Owen II*, 20 Cl. Ct. at 583 (following *Tri-State Materials Corp. v. United States*, 550 F.2d 1 (Ct. Cl. 1977)).

200. After the Federal Circuit held in *Owen I* that consequential damages to land above the high water mark were compensable if caused by government action, the Federal Circuit remanded the case to the Claims Court for an adjudication of the causation issue. *Owen I*, 851 F.2d at 1418. On remand the Claims Court concluded that the government had “established other forces and developments that [were] independently sufficient to explain the damage,” and therefore held that no compensable taking existed. *Owen II*, 20 Cl. Ct. at 588.

201. *Owen I*, 851 F.2d at 1413.

202. See *Applegate v. United States*, 25 F.3d 1579, 1580 (Fed. Cir. 1994); Defendant’s Proposed Protocol, *supra* note 97, at 2.

203. See *Boylan*, *supra* note 120, at 8A; Defendant’s Proposed Protocol, *supra* note 97, at 17-19.

204. *PILKEY*, *supra* note 86, at 94.

205. *Id.* Net littoral drift, however, is to the south. *Id.*

north and south, depending on the season, the Canaveral Harbor Project cannot physically be the sole cause of the damaging erosion.²⁰⁶

Some of the same factors which led to a finding of non-causation in *Owen II* are present in *Applegate*. For example, Brevard and adjacent counties have been the subject of numerous natural disasters since the construction of the Canaveral Harbor Project. Hurricanes and winter storms have been particularly vexatious for Brevard County beaches over the last fifty years.²⁰⁷ Consider the account of Professor Pilkey:

The March and November 1962 storms caused extensive erosion along all Brevard beaches. The Lincoln's Birthday storm in February 1973 caused dune overtopping and 5 to 25 feet of horizontal beach retreat along the county beaches accompanied by tides 4 to 6 feet above normal. The October 1974 storm caused severe flooding and beach erosion because of tides 3 to 5 feet above normal and gale-force winds. Finally, the winter storms of 1981 and 1983 caused continuing severe beach and dune retreat.²⁰⁸

Moreover, Brevard County beaches have been hit with a series of severe summer storms in the last two years, including direct hits from Hurricane Erin and Tropical Storms Jerry and Gordon.²⁰⁹ These summer storms have been a significant factor in the damage of property belonging to some of the *Applegate* plaintiffs.²¹⁰

Other factors which appear to have contributed to the erosion of the *Applegate* plaintiffs' properties include: the continued steepening of the inner continental shelf adjacent to Brevard County beaches,²¹¹ rising sea levels,²¹² and the destruction of protective dunes during the construction process.²¹³ In addition, privately constructed revetments

206. A showing of sole causation, however, is not a *sine qua non* for recovery of just compensation under the Fifth Amendment. *Tri-State Materials Corp. v. United States*, 550 F.2d 1, 4 (Ct. Cl. 1977).

207. PILKEY, *supra* note 86, at 95.

208. *Id.*

209. Boylan, *supra* note 120, at A1; see Lou Misselhorn, *Hope Washed Away with Beaches: Storm Sets Scene for Serious Erosion Damage*, FLA. TODAY (Melbourne, Fla.), Dec. 1, 1994, at 1A.

210. See Boylan, *supra* note 120, at A1; Misselhorn, *supra* note 209, at 1A. This fact may be of significance if, as *Owen I* directs, only consequential damages distinct from the navigational servitude are recoverable.

211. PILKEY, *supra* note 86, at 106 ("Geologists do not completely understand why this steepening occurs, but it does make the beaches more vulnerable to erosion in the future."). Replacement sand comes primarily from two sources on the East Coast of Florida, littoral drift sand, for which the net drift is south, and sand that is pushed up from the continental shelf and taken ashore by waves. *Id.* at 23, 29. When the continental shelf becomes steeper, less sand is washed ashore by the waves. *Id.* at 106.

212. *Id.* at 29, 50.

213. *Id.* at 52-53.

and seawalls on neighboring properties may have exacerbated erosion on the properties of particular *Applegate* property owners as well.²¹⁴

The foregoing analysis indicates that although some *Applegate* plaintiffs may demonstrate that the Canaveral Harbor Project was a factor in increased erosion,²¹⁵ many will have difficulty in establishing that the erosion on their individual piece of property was the “direct and necessary result” of the Canaveral Harbor Project.²¹⁶

VI. REVISITING *PENN CENTRAL*: TEMPORARY, PERMANENT AND PER SE TAKINGS

Even if the *Applegate* plaintiffs can demonstrate a compensable expectancy in obstructed sand drift and show that the obstructed sand directly and proximately caused property damage, they still may not have successfully stated a compensable claim for a per se taking.

As previously discussed, one unanswered question in physical takings jurisprudence is whether those physical takings that do not rise to the level of a permanent physical invasion may still be regarded as per se takings requiring automatic compensation.²¹⁷ Language in *Loretto* appears to indicate that a balancing approach is appropriate in the context of physical invasion by flooding and erosion.²¹⁸ Specifically, “[n]ot every physical invasion is a taking As . . . *intermittent flooding cases reveal*, such temporary limitations are subject to a more complex balancing process to determine whether they are a taking.”²¹⁹

214. *Id.* at 46-50.

215. *Cf.* *Pitman v. United States*, 457 F.2d 975, 978 (Fed. Cir. 1972), *overruled in part Owen I*, 851 F.2d 1404 (Fed. Cir. 1988) (“There is no doubt that plaintiff has sustained damages and that a substantial portion of the damages he claims are due to the construction and maintenance of the Canaveral Harbor Project.”).

216. In finding *no evidence* of government causation, *Owen II* never was required to determine the quantum of evidence necessary to show proximate causation, though the court did cite *Sanguinetti* for the traditional rule that compensable erosion damage must be the “direct and necessary result” of government action. *Owen II*, 20 Ct. Cl. at 583 (citing *Sanguinetti v. United States*, 264 U.S. 146, 149-50 (1924)).

Dicta in *Owen I*, however, may indicate that the Federal Circuit is setting the foundation for applying a more plaintiff-favorable causation standard. *Owen I*, 851 F.2d at 1418 (“On remand the government . . . will be free to prove that the alleged destruction *was either not the result of its action or was such an indirect consequence of it as not to be a compensable taking.*”) (emphasis added). Thus, the degree of causation that will be demanded in *Applegate* remains an open question. If the Federal Circuit invokes the “such an indirect consequence” dicta from *Owen I*, the *Applegate* plaintiffs will likely prevail on the causation issue. If the plaintiffs are required to show that their damages were the “direct and necessary result” of the Canaveral Harbor Project, the result will likely be similar to the result reached in *Owen II*; i.e., interrelated non-government factors negating inference of direct and proximate causation.

217. *See supra* notes 58-60 and accompanying text.

218. *Loretto v. Manhattan Teleprompter CATV Corp.*, 458 U.S. 419, 436 n.12 (1982).

219. *Id.* (emphasis added).

The Court of Federal Claims has followed *Loretto* to hold that a non-permanent physical invasion, or “temporary taking,” invokes the three-prong *Penn Central* ad hoc analysis normally applied in the context of regulatory takings.²²⁰ If the taking of plaintiffs’ beach sand is only temporary, which dicta by Judge Rader indicates is the case in *Applegate*,²²¹ then according to *Loretto*, no per se taking has occurred.²²² If a taking is not per se, then an ad hoc inquiry must be conducted to determine if a compensable taking has occurred.²²³ Thus, the *Applegate* plaintiffs may not have the benefit of the *Loretto* per se taking rule for permanent physical invasions even if they satisfy the other requirements necessary to state a physical takings claim.

Utilization of *Penn Central*, rather than *Loretto*, means that the plaintiffs may be denied compensation if it is shown that governmental action in *Applegate* has not gone “too far” so as to require compensation.²²⁴ This distinction could be critical in *Applegate* because of the economic prosperity that the Canaveral Harbor Project and NASA brought to previously rural and undeveloped Brevard County.²²⁵

Arguably, without the presence of NASA, which would not have located in Brevard County without the presence of Canaveral Harbor,²²⁶ and the high-tech job base that NASA spawned,²²⁷ the *Applegate* plaintiffs’ property values at their 1951 sizes would be lower than their values today at their smaller 1996 sizes. NASA was the primary catalyst for the Brevard County real estate development explosion of the 1960s²²⁸ and caused the rapid growth of commerce

220. *Preseault v. United States*, 27 Cl. Ct. 69, 95 (1992), *aff’d in part, vacated in part*, 66 F.3d 1167 (Fed. Cir. 1995) (holding that where the government had taken reversionary interest for term of years lease no permanent physical occupation had occurred) (“Unless a taking is deemed per se, the court examines three factors set out in *Penn Central* to ascertain if public action works a taking.”) (citation omitted), *withdrawn*, 66 F.3d 1190 (1995). *But cf.* *Skip Kirchdorfer, Inc. v. United States*, 6 F.3d 1573, 1583 (Fed. Cir. 1993); *Hendler v. United States*, 952 F.2d 1364, 1376 (Fed. Cir. 1992); *Plager*, *supra* note 10, at 203-04.

221. 25 F.3d 1579, 1582-83 (Fed. Cir. 1994)

With a sand transfer plant in place, the [Plaintiffs] would encounter little, if any, permanent destruction of their shoreline property Of course, installation of the sand transfer plant will not eliminate the Government’s obligation to compensate the landowners if the erosion amounts to a temporary physical taking.

Id.

222. *Loretto*, 458 U.S. at 436 n.12.

223. *Id.*

224. *See generally Penn Central Transp. Co. v. New York City*, 438 U.S. 104 (1978); *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393, 415 (1922).

225. *See supra* notes 75-87 and accompanying text.

226. *See supra* note 82 and accompanying text.

227. *See supra* notes 82-85 and accompanying text.

228. *Id.*

and tourism in Brevard County.²²⁹ Without NASA, the *Applegate* plaintiffs would likely own rural ocean front property; certainly valuable, but probably worth considerably less than the present day value of property on Florida's famous "Space Coast."²³⁰

Given the direct economic benefit that the Canaveral Harbor Project has bestowed on plaintiffs' properties,²³¹ in an ad hoc *Penn Central* balancing inquiry, a court would likely find no compensable taking because a "reciprocity of advantage" would arguably exist, negating plaintiffs' economic harm from the erosion.²³²

229. See *supra* notes 77-89 and accompanying text.

230. *Id.*

231. The federal government has substantially increased the value of the *Applegate* plaintiffs' properties in one other significant way. The federal government operates the National Flood Insurance Program, 42 U.S.C. § 4011 et. seq. (1989 and Supp. V 1993), which subsidizes flood insurance for coastal property owners. See 42 U.S.C. § 4017 (1989 & Supp. V 1993). The National Flood Insurance Program makes it possible for coastal property owners to insure beachfront homes from acts of nature such as hurricanes and floods. For many beachfront homeowners, private insurance would be unobtainable or prohibitively expensive in the absence of the National Flood Insurance Program. See generally *Revitz v. Terrell*, 572 So. 2d 996, 997 (Fla. 3d DCA 1990) (noting that homeowner's insurance for house located in coastal flood zone would cost \$350 per year when eligible for federally subsidized flood insurance, but \$36,000 per year to insure when ineligible for federal program).

Affordable homeowner's insurance would not be available to many of the *Applegate* plaintiffs absent the intervention of the federal government in facilitating flood insurance. The inability to obtain such insurance would substantially diminish the value of the *Applegate* plaintiffs' properties. Interview with Sandra P. Stockwell, Board Certified Specialist in Florida Real Estate Law (March 3, 1996) [hereinafter Stockwell Interview].

Diminution in value would primarily occur for two reasons. First, many potential coastal residents would eschew purchasing coastal property because of the extreme cost of protecting their investment through unsubsidized flood insurance. Compare *Revitz*, 572 So. 2d at 997-98, with 42 U.S.C. § 4001 (b) (1989 & Supp. V 1993). Second, institutional lenders would be unwilling to issue mortgages on property where flood insurance is unobtainable or prohibitively expensive because lenders would have little means of protecting their collateral from flood hazards and hurricanes. Stockwell Interview, *supra*. Accordingly, in the absence of the National Flood Insurance Program, most prospective buyers of coastal property would be ineligible for bank financing. *Id.* This would drastically reduce the demand for, and value of, coastal property because it would effectively eliminate sophisticated buyers from the coastal real estate market. *Id.*

Given the foregoing, it would be manifestly unjust to require the federal government to compensate the *Applegate* plaintiffs for erosion induced diminution in property value; much of that value would not exist in the first instance were it not for federally subsidized flood insurance.

232. See *Penn Central Transp. Co. v. New York City*, 438 U.S. 104, 124 (1978) (identifying economic impact on property owner as a relevant factor in determining if a taking has occurred); cf. *Laughlin v. United States*, 22 Cl. Ct. 85, 113 (1990), *aff'd on other grounds*, 975 F.2d 869 (Fed. Cir. 1992) (finding no taking on basis of "doctrine of relative benefits").

Moreover, under the *Penn Central* approach, plaintiffs' takings claim would likely be rejected because almost all plaintiffs took title to their respective properties with the reasonable investment-backed expectation that their property was eroding, and that the erosion was likely to continue. See *Penn Central*, 438 U.S. at 124; see also *infra* notes 246-50, accompanying text, and Appendix A.

VII. PUBLIC POLICY AGAINST FINDING A TAKING IN APPLGATE: A HARD LOOK BEFORE OPENING THE PROVERBIAL FLOODGATE

If the United States Claims Court and the Federal Circuit agree that the Corps of Engineers has created a per se physical taking in *Applegate*, many of the public policy arguments against compensation in future cases will become inapposite.²³³ Thus, the United States Claims Court and the Federal Circuit should carefully weigh public policy and Supreme Court precedent before declaring that the facts of *Applegate* create a new variety of per se physical taking.²³⁴ If a per se physical taking is found in *Applegate*, the United States Claims Court would lose the flexibility to consider the facts of each individual case in determining the government's liability.²³⁵ Due to this loss of control, the plaintiffs' victory in *Applegate* would be the catalyst for a flood of similar litigation from around the country.²³⁶ In any event, the Federal Circuit and the United States Claims Court should consider the following policy issues before declaring a per se taking in *Applegate*.

A. Reasonable Investment-Backed Expectations

Any damages awarded in *Applegate* must correspond to the *Applegate* plaintiffs' reasonable investment-backed expectations.²³⁷ "Reasonable investment-backed expectations," or what a property owner can reasonably expect his property rights to encompass, are formed on the date that title to land is taken.²³⁸ As Professor Mandelker explains, "[i]nvestment-backed expectations held by

233. See Plager, *supra* note 10, at 163-64 ("Just compensation is demanded by the Fifth Amendment if you have a physical taking; it does not matter how big, how small, or what the underlying public policy, how important, or how unimportant. If you have a physical taking by government, you get paid. That is what the Fifth Amendment says; that is what *Loretto v. Teleprompter Manhattan CATV Corp.* says . . ."). One public policy argument that would not be disregarded, however, would be that of reasonable investment-backed expectations because the determination of such expectations are critical to ascertaining the extent of a property interest. See *infra* notes 236-50 and accompanying text.

234. Because of the harshness of *Loretto's* rule of per se takings, the Supreme Court has been loathe to extend the physical takings doctrine outside the context of a direct and permanent invasion of private property by the government. See sources cited *supra* note 10.

235. See Plager, *supra* note 10, at 163-64.

236. Cf. Quintana, *supra* note 11, at B1 ("[T]he Army Corps of Engineers is going to be accountable for things they've done all over the country.") (quoting *Applegate* plaintiffs' lead attorney Gordon "Stumpy" Harris).

237. Investment-backed expectations are critical in determining the extent of a property interest, regardless of whether the takings claim is characterized as a per se physical taking or a regulatory taking. *Avenal v. United States*, 33 Cl. Ct. 778, 785 (1995).

238. See *M & J Coal v. United States*, 47 F.3d 1148, 1153-54 (Fed. Cir. 1995). This is also true regardless of whether the property owner later alleges a physical or regulatory taking of property. *Id.*

property owners arise at the time of purchase and the information they have then about their property gives them meaning.”²³⁹ Thus, the objective facts that landowners know or should know about their property at the time title is taken are imperative in determining the amount of property value that has been physically taken by government action.²⁴⁰

If a landowner “knows” upon purchase of property that the property is eroding, then the landowner is aware that the property has a restraint, causing it to have less value. Presumably, the landowner pays less for the land due to the erosion.²⁴¹ Thus, a loss of property occasioned by further erosion, if reasonably contemplated at the time of purchase, has inflicted no compensable injury on the landowner because “[i]n economic terms, it could be said that the market had already discounted” for the erosion of the land.²⁴² A physical taking should be compensable only when erosion continues and surpasses the reasonable expectations of the property owner when the property was purchased.

Even if the *Applegate* plaintiffs could demonstrate that they had a property interest which was taken as a direct result of the Canaveral Harbor Project, compensation would be appropriate only to the extent of their reasonable investment-backed expectations.²⁴³ Thus, only plaintiffs who suffered more erosion than they could have reasonably expected to suffer at the time of purchase should be awarded compensation.²⁴⁴

Under this premise, the time the *Applegate* plaintiffs acquired their respective properties and how much damage befell the properties

239. Daniel R. Mandelker, *Investment-Backed Expectations in Takings Law*, 27 URB. LAW. 215, 227 (1995).

240. See *M & J Coal*, 47 F.3d at 1153-54.

241. See *Loveladies Harbor, Inc. v. United States*, 28 F.3d 1171, 1177 (Fed. Cir. 1994). Whether a plaintiff lacks *actual knowledge* of a limitation on purchased property, and accordingly pays a higher price than he should have, is irrelevant because purchasers of land are held to constructive knowledge of reasonably ascertainable property conditions. See *M & J Coal*, 47 F.3d at 1154.

242. *Loveladies*, 28 F.3d at 1177. Assuming that the loss of value occasioned by erosion could constitute a cognizable taking claim, the person with the right to bring suit for a taking would be the person who owned the land when the erosion first began, and not the subsequent purchaser who paid a lower price. *Id.*

In legal terms, the owner who bought with knowledge of the restraint could be said to have no reliance interest. In economic terms, it could be said that the market had already discounted for the restraint, so that a purchaser could not show a loss in his investment attributable to it.

Id.

243. See generally Mandelker, *supra* note 238, at 227.

244. Such a result would be fair because the lower purchase price paid would cease to “implicitly compensate” the landowner at the point where erosion damages exceeded reasonable expectations of future erosion damage.

subsequent to the time of purchase must be determined. Plaintiffs allege that the Canaveral Harbor Project first began causing erosion in October of 1951.²⁴⁵ Accordingly, they have demanded damages for the loss of all sand *on every piece of property* in the litigation since October 1951.²⁴⁶

Ironically, plaintiffs also allege that the general public in Brevard County was aware of the continuing erosion by 1966.²⁴⁷ By the plaintiffs' own admission, all of the plaintiffs who purchased their properties after 1966 had actual or constructive knowledge of the continuing erosion. Thus, they would have paid less money for their respective properties. Documents filed with the Court of Federal Claims disclose some revealing statistics. Of the 320 plaintiffs in the *Applegate* litigation, only one owned property in October of 1951 when the erosion first began, and only twenty-one owned their properties prior to 1966.²⁴⁸ Eighty of the 320 plaintiffs purchased their respective properties within the last six years.²⁴⁹

Several conclusions can be drawn regarding plaintiffs' reasonable investment-backed expectations as they relate to stating a physical takings claim in *Applegate*. First, the law is clear that no plaintiff may seek compensation for the loss of an economic value that predates any interest in the affected property.²⁵⁰ Thus, no plaintiff may recover for damages dating back to 1951, unless the plaintiff took title to the property in 1951. Second, many of the plaintiffs have already implicitly received full compensation for any taking, by paying a lower price for their respective properties.²⁵¹ Third, there will be a few plaintiffs, particularly those that took title prior to 1966, whose reasonable investment-backed expectations permit them to receive compensation for the drift sand loss.

One conclusion is inescapable: Awarding all *Applegate* plaintiffs total damages sought since 1951 would result in the single greatest case of unjust enrichment in American jurisprudence. Many plaintiffs would realize a tremendous profit on their land in a very short period of time, in some circumstances, the profit possibly exceeding the present value of the properties themselves. And of course, the federal

245. Defendant's Proposed Protocol, *supra* note 97, at 5-6.

246. *Id.*

247. Complaint for Inverse Condemnation, *supra* note 3, at 9.

248. See Appendix A.

249. *Id.* At least five particularly ambitious Plaintiffs joined the lawsuit less than one year after purchasing their property. *Id.*

250. See *Cooper v. United States*, 8 Cl. Ct. 253, 255 (1985).

251. *Loveladies Harbor, Inc. v. United States*, 28 F.3d 1171, 1177 (Fed. Cir. 1994).

taxpayer would pay the bill, and receive no tangible, nor theoretical benefit in return.

B. Societal Efficiency

Compensating most of the plaintiffs in *Applegate* for the alleged injuries to their properties would be societally inefficient and contrary to fundamental principles of fairness. Before deciding to broaden the scope of physical takings doctrine to encompass the facts of *Applegate*, the Claims Court and the Federal Circuit must cautiously weigh the costs and benefits of rendering such a decision. In the context of physical takings claims, Professor Michelman suggests that conflicting claims between public and private rights to land can be resolved by focusing on the efficient use of societal resources.²⁵² Professor Michelman defines efficiency as the “augmentation of the gross social product where it has been determined that a change in the use of certain resources will increase the net payoff of goods (however defined or perceived) to society ‘as a whole.’”²⁵³ Such efficiency can be reached through government action that “maximiz[es] . . . the output of the entire resource base upon which competing claims of right are dependent.”²⁵⁴ When the government maximizes the benefits of natural resources, such as the ocean, through public works projects, like navigational improvements, private landowners often suffer incidental burdens as a result of the government’s wealth maximization.²⁵⁵ Under circumstances where a public works project has led to greater societal efficiency, Professor Michelman would grant compensation to incidentally burdened property owners only when the public work’s overall cost to affected property owners is greater than the overall benefit yielded to society from the project.²⁵⁶

252. Michelman, *supra* note 13, at 1173.

253. *Id.*

254. Joseph L. Sax, *Takings, Private Property and Public Rights*, 81 YALE L.J. 149, 172 (1971).

255. This was clearly the case in *Applegate*. See *Applegate v. United States*, 28 Cl. Ct. 554 (1993), *rev'd*, 25 F.3d 1579 (Fed. Cir. 1994).

256. Michelman, *supra* note 13, at 1177-78. No compensation is required where societal benefits outweigh incidental costs because:

to insist on full compensation to every interest which is disproportionately burdened by a social measure dictated by efficiency would be to call a halt to the collective pursuit of efficiency. It would require a tracing of all impacts, no matter how remote, speculative, or arguable, and a valuation of all burdens, no matter how idiosyncratic or imponderable. If satisfactory performance of such an obligation is not absolutely impossible, at least it is clear that in many situations its costs would be prohibitive.

Id. at 1178-79; see also Michael L. Gold, Note, *Loretto v. Teleprompter Manhattan CATV Corp.: The Propriety of a Per Se Rule in Takings Claims*, 16 J. MARSHALL L. REV. 419, 431 (1983).

Professor Michelman's economic analysis would seem to help explain the reasoning behind the parameters of the navigational servitude doctrine.²⁵⁷ The Supreme Court recognized early that the benefits of improved navigation would yield great societal benefits in increased commerce, energy production and flood prevention.²⁵⁸ The potentially prohibitive cost of compensating every owner whose riparian property was incidentally affected by water flow adjustments would negate the social benefits of implementing important public works. The Supreme Court, having completed an informal cost benefit analysis, appears to have set the navigational servitude doctrine at parameters which would allow for compensation only when the costs of compensation would not outweigh the societal benefit of navigational improvements. Hence, the Court invoked the modern rule that property damage from navigational improvements is compensable only if the damage is directly caused by the government, and occurs above the high water mark.²⁵⁹

In *Applegate*, the federal government improved local commerce and national defense by building a harbor in largely rural Brevard County.²⁶⁰ The government, even if it could have predicted the extent of future erosion, could not have predicted with any certainty where future erosion might occur,²⁶¹ and thus, any attempt to compensate landowners would ultimately have lead to unjust enrichment of some and inadequate compensation of others. For the federal government to now face potentially open-ended liability forty years after constructing navigational improvements, would contravene societal efficiency and simple common sense.²⁶²

The benefits of the Canaveral jetty, allegedly the main culprit in obstructing the sand flow, are significant. The jetty protects commercial vessels, many of which are owned and operated by local

257. The navigational servitude doctrine has repeatedly barred claims that would have otherwise qualified as physical takings, if not for the geographic location of the injury below the high water mark. See, e.g., *United States v. Cherokee Nation of Oklahoma*, 480 U.S. 700, 704 (1987).

258. See *United States v. Chicago, M., St. P. & P. R.R.*, 312 U.S. 592 (1941); *Gibson v. United States*, 166 U.S. 269 (1897); *Gilman v. Philadelphia*, 70 U.S. 713 (1865).

259. See *Chicago, M., St. P. & P. R.R.*, 312 U.S. at 597 (addressing the wide scope of Congress' power to improve navigation below the high water mark); *Owen v. United States*, 851 F.2d 1404, 1408 (Fed. Cir. 1988).

260. See *supra* notes 77-89 and accompanying text.

261. See PILKEY, *supra* note 86, at 106-07. To this day, experts disagree on exactly how far along the coast Port Canaveral affects littoral sand flow. Estimates range from three miles to eighteen miles. Boylan, *supra* note 120, at 9A.

262. Compensation in *Applegate* is particularly inappropriate given that the Army Corps of Engineers constructed the Canaveral Harbor Project without any expectation of owing compensation for indirect beach erosion. How could the Corps have anticipated owing such compensation with cases like *Southern Pacific*, *Sanguinetti*, and *Twin City Power* on the books?

interests, from damaging waves. Nevertheless, the cost of compensating all incidentally affected landowners for lost sand would be prohibitive, potentially reaching hundreds of millions of dollars.²⁶³

The potential for disproportionate cost becomes particularly apparent when one considers the hundreds of navigational jetties that have been constructed along America's coastline over the last 150 years.²⁶⁴ Some researchers estimate that "a jetty can deprive beaches of sand for as far as fifty miles if other conditions are right."²⁶⁵ One can only imagine the cost to taxpayers if every ocean jetty in the United States created an obligation to compensate every incidentally affected property owner for fifty miles on the eroding side of every jetty.²⁶⁶ The cost of actual compensation would not include the enormous transaction costs that would accompany litigating the actual damage to each piece of allegedly affected property. Moreover, costs to society could be exacerbated because the federal government might refuse to undertake universally supported public works projects for fear of strategic behavior by local residents and the inability to avoid future litigation.²⁶⁷

Thus, from an economic perspective, the allegations of takings in *Applegate* are exactly the types of claims which should be barred as economically inefficient.²⁶⁸ The costs of adjudicating and compensating the claims of every incidentally injured property owner, many of whom would have acquired their property long after most erosion

263. See Quintana, *supra* note 11, at B1. The exorbitant damages sought by the *Applegate* Plaintiffs could easily turn to unjust enrichment if sand renourishment projects are successful. Under such circumstances, the benefit to society of compensating property owners would be much decreased because the funding would be allocated to those who had suffered little or no permanent injury. Cf. *Applegate v. United States*, 25 F.3d 1579, 1582 (Fed. Cir. 1994) ("With a sand transfer plant in place, the landowners would encounter little, if any, permanent destruction of their shoreline property.").

264. KAUFMAN & PILKEY, *supra* note 120, at 195-205.

265. Boylan, *supra* note 120, at 9A.

266. Cf. Michelman, *supra* note 13, at 1179 ("[T]he possibility should be noted that the outlay which the social treasury would have to make to cover compensation claims occasioned by an obviously net-positive measure might be prohibitive simply because the amount could not be raised by taxation without destabilizing the economy.").

267. *Id.*

[I]t may be quite impracticable to identify in advance all the losses which may flow from [government action], or to predict the values which a compensation settlement would assign to them. If it were the accepted practice to entertain all plausible claims to be compensated for losses disproportionately imposed by public measures, public decision-makers probably would reject some proposals for no better reason than that they could not be sure of net gain after all the compensation returns were in.

Id.

268. See *id.*; Sax, *supra* note 253.

had occurred,²⁶⁹ would negate any aggregate societal benefit acquired from the presence of navigational jetties in the protection of commerce.

C. The Proper Role of the Judiciary, Separation of Powers and Deference to the Elected Branches

Congress made a legislative choice that the social welfare would be served by creating a deep water harbor on the east coast of Florida.²⁷⁰ As a direct consequence, substantial economic opportunity was created in Cape Canaveral and adjacent coastal towns. As an indirect consequence, sand belonging to no one, except perhaps the state of Florida,²⁷¹ allegedly ceased replenishing the plaintiffs' beaches at the same volume. No property of the plaintiffs was taken, no governmentally-induced incursions of water flooded plaintiffs' beaches. A judicial decree awarding the plaintiffs hundreds of millions of dollars over forty years after the construction of the Canaveral Harbor Project would overstep the judicial role, tantamount to awarding damages for a "constitutional tort" rather than a traditionally defined physical taking.²⁷² Perhaps, in retrospect, Congress or the Army Corps of Engineers should have allocated more funds towards beach renourishment projects in Brevard County, but this was a choice for the elected branches of government to make.²⁷³

269. See Appendix A.

270. Cf. *United States v. Twin City Power*, 350 U.S. 222, 224 (1956) ("It is not for courts . . . to substitute their judgments for congressional decisions on what is or is not necessary for the improvement or protection of navigation.").

271. See *Hayes v. Bowman*, 91 So. 2d 795, 799 (Fla. 1957). For a discussion of littoral sand ownership under Florida law, see *supra* notes 128-68 and accompanying text.

272. See Blumm, *supra* note 7, at 192-93. Unfortunately, recent opinions of the Federal Circuit appear to fully bear out Professor Blumm's concerns. It would now appear that any colorable common law tort committed by the federal government is the equivalent of a constitutional violation. For a somewhat unsettling opinion, see *Skip Kirchdorfer, Inc. v. United States*, 6 F.3d 1573, 1583 (Fed. Cir. 1993) ("[B]reaking and entering without permission constitutes a taking . . . requiring compensation under the Fifth Amendment.").

273. See Note, *Taking a Step Back: A Reconsideration of the Takings Test of Nollan v. California Coastal Commission*, 102 HARV. L. REV. 448, 461 (1989) ("Absent a flaw in the elective or legislative process, the legislature—a representative body—is presumably better suited than an appointed judiciary to assess accurately the costs and benefits to its constituents of any given regulation.").

The building of a sand-transfer plant, as the *Applegate* plaintiffs request, is exactly the kind of political decision that gets made with sufficient political pressure. Wealthy beach-front property owners can hardly be seen as politically powerless. See, e.g., *Brevard County Beach Renourishment Authorization, March 21, 1996: Hearings Before the Subcomm. on Water Resources of the House Comm. on Transportation and Infrastructure*, 1996 WL 5510374 (1996) (statement of Congressman Dave Weldon) (requesting that subcommittee authorize \$69 million towards further beach renourishment projects for Brevard County in 1996). Further evidence of political clout is readily apparent. In response to political pressure, the Corps implemented a sand bypass project in 1994 designed to "mitigate future erosion impacts from the inlet." *Id.* Since the 1994

The federal courts should not impose on the United States a constitutional obligation to compensate for the loss of drifting beach sand, a public good.²⁷⁴

VIII. CONCLUSION

A takings declaration in *Applegate* would be in direct contravention of well-settled Supreme Court precedent, as well as simple common sense. Beaches are dynamic creatures. It is absurd for littoral property owners to expect that beaches will remain static over time, particularly when title is taken during a period of visible erosion. If one accepts the benefits of living on the ocean, one must likewise be willing to shoulder the burdens that may arise.²⁷⁵

A declaration of taking in *Applegate*, combined with the Federal Circuit's previous evisceration of the Tucker Act statute of limitations,²⁷⁶ would open the federal courts to a flood of stale and champertous litigation, potentially dating back hundreds of years. The truly deserving would escape compensation in favor of the litigious, and the federal taxpayer would pay a potentially open-ended bill.

The Federal Circuit has, with increasing frequency, chosen to ignore the teachings of *Pennsylvania Coal* and *Penn Central* which instruct courts to find takings only when a government action goes "too far" or when "justice and fairness require that economic injuries caused by public action be compensated by the government, rather

implementation of the sand bypass project, the Corps has placed approximately 1.25 million cubic yards of beach quality sand on the eroded beaches south of Canaveral Harbor. See Defendant's Consolidated Cross-Motion for Summary Judgment and Response to Plaintiff's Motions for Partial Summary Judgment at Exhibit B, p.p.8-10, *Applegate v. United States*, 25 F.3d 1579, 1581 (Fed. Cir. 1994). Moreover, the Corps of Engineers has placed nearly 6 million cubic yards of beach quality sand on the beaches south of Canaveral Harbor since 1972. *Id.* With continued political pressure, it is likely that the *Applegate* Plaintiffs will get the full panoply of erosion control measures they desire, and thus, presumably their erosion injury will disappear through the political process. *Cf.* *Applegate v. United States*, 25 F.3d 1579, 1581 (Fed. Cir. 1994) ("[T]he sand transfer plant would reverse the continuous erosion process. With a sand transfer plant in place, the landowners would encounter little, if any, permanent destruction of their shoreline property.").

274. *Cf.* *United States v. Willow River Power Co.*, 324 U.S. 499 (1945).

The Fifth Amendment . . . does not undertake . . . to socialize all losses, but those only which result from a taking of property. If damages from any other cause are to be absorbed by the public, they must be assumed by act of Congress and may not be awarded by the courts merely by implication from the constitutional provision.

Id. (emphasis added).

275. *Cf.* *Board of Trustees of the Internal Improvement Trust Fund v. Sand Key Assoc.*, 512 So. 2d 934, 937 (Fla. 1987) ("[H]e who sustains the burden of losses and of repairs, imposed by the contiguity of waters, ought to receive whatever benefits they may bring by accretion . . .") (quoting *Banks v. Ogden*, 69 U.S. 57, 67 (1864)).

276. *Applegate v. United States*, 25 F.3d 1579, 1581 (Fed. Cir. 1994).

than remain disproportionately concentrated on a few persons.”²⁷⁷ Presumably, permanent physical takings, as traditionally defined, always go “too far.” However, can it be said that justice is truly served when compensation is required for every physical injury to private property, no matter how peripheral, and regardless of reasonable investment-backed expectations and societal cost? The Federal Circuit’s recent opinion in *Applegate* appears to answer the question affirmatively. We should all share the hope of Justice Stevens in *Dolan* that the recent attempts at expansion of physical takings doctrine in the Federal Circuit do not signal a return to the “superlegislative power the Court exercised during the *Lochner* era.”²⁷⁸

277. *Penn Central Transp. Co. v. New York City*, 438 U.S. 104, 124 (1978).

278. *Dolan v. City of Tigard*, 114 S. Ct. 2309, 2329 (1994) (Stevens, J., dissenting).

APPENDIX 1

Dates Plaintiffs Acquired Interest in Claimed Properties

DATE	PLAINTIFF #	DATE	PLAINTIFF #	DATE	PLAINTIFF #
UNKNOWN	288	10/12/72	123	03/19/79	189
UNKNOWN	270	12/28/72	179	03/28/79	61
UNKNOWN	28	01/01/73	50	03/29/79	155
08/11/50	112	01/08/73	184	03/29/79	150
12/26/51	8	02/16/73	183	04/02/79	145
06/26/52	112	04/03/73	222	04/25/79	193
07/12/57	277	05/18/73	14	04/29/79	2
08/01/57	297	06/04/73	217	04/30/79	193
08/03/57	288	08/00/73	184	05/07/79	281
08/07/57	95	02/15/74	14	06/29/79	30
09/29/58	69	05/15/74	14	07/02/79	160
01/01/59	47	05/15/74	137	07/03/79	33
05/08/59	131	06/05/74	51	08/01/79	18
06/24/60	323	06/21/74	213	08/09/79	18
04/19/62	75	01/01/75	175	08/28/79	136
01/01/63	113	01/01/75	283	11/14/79	273
05/16/63	176	02/21/75	80	12/31/79	11
12/19/63	226	03/24/75	14	00/00/80	319
12/27/63	272	06/20/75	221	01/10/80	115
08/23/64	218	08/11/75	192	02/06/80	280
08/23/64	260	11/17/75	237	06/04/80	202
08/03/65	17	12/20/75	19	06/20/80	37
11/03/65	298	05/20/76	251	07/07/80	206
12/10/65	4	09/23/76	299	08/08/80	114
10/08/66	119	10/29/76	12	08/13/80	234
11/15/66	60	12/28/76	157	08/13/80	278
07/21/67	224	12/28/76	287	08/29/80	76
7/31/67	308	01/01/77	10	09/04/880	36
08/18/67	22	03/01/77	159	09/05/80	82
11/27/67	279	05/06/77	89	09/26/80	100
12/08/67	128	05/16/77	162	09/30/80	121
04/26/68	215	05/31/77	214	10/10/80	254
08/27/68	223	10/03/77	166	12/01/80	55
01/01/69	272	02/01/78	46	01/11/81	41
04/24/69	86	04/07/78	52	01/27/81	179
06/27/69	163	04/11/78	52	01/30/81	66
12/31/69	139	05/15/78	148	03/16/81	121
03/17/70	93	06/01/78	311	03/31/81	141
07/01/70	25	07/29/78	44	05/01/81	165
12/14/70	295	08/31/78	214	05/03/81	207
03/23/71	248	09/01/78	85	05/24/81	142
06/14/71	43	10/10/78	230	07/14/81	101
12/02/71	97	11/27/78	210	07/23/81	274
01/01/72	65	12/15/78	62	08/14/81	1
01/01/72	21	01/01/79	172	09/01/81	158
04/14/72	98	01/02/79	42	10/01/81	165
05/24/72	198	01/31/79	209	10/20/81	83

DATE	PLAINTIFF #	DATE	PLAINTIFF #	DATE	PLAINTIFF #
11/12/81	241	05/23/85	72	08/21/88	91
12/30/81	188	06/26/85	187	09/01/88	144
01/04/82	249	07/12/85	29	09/01/88	284
04/01/82	87	08/15/85	125	09/13/88	6
04/09/82	40	08/26/85	135	10/12/88	276
04/21/82	78	09/04/85	261	10/15/88	118
05/03/82	13	10/07/85	77	10/31/88	79
05/14/82	262	10/16/85	267	11/30/88	132
06/04/82	288	10/30/85	266	01/01/89	181
09/02/82	63	10/30/85	266	01/16/89	185
09/02/92	203	01/01/86	134	02/01/89	38
10/14/82	211	02/07/86	200	03/15/89	219
11/04/82	288	05/21/86	275	03/16/89	9
11/14/82	262	07/07/86	201	03/27/89	164
12/01/82	16	09/15/86	45	033/28/89	288
12/31/82	39	10/15/86	235	05/04/89	23
00/00/83	236	10/20/86	271	05/11/89	56
01/09/83	294	12/01/86	152	05/19/89	24
04/11/83	106	12/15/86	64	05/24/89	103
04/15/83	117	12/17/86	231	07/27/89	147
09/00/83	294	12/24/86	54	07/28/89	252
10/07/83	111	12/29/86	288	08/31/89	265
11/18/83	168	00/00/87	225	09/01/89	179
01/01/84	143	04/10/87	182	10/10/89	122
01/03/84	120	04/15/87	288	10/26/89	208
01/03/84	242	04/15/87	126	11/15/89	70
02/15/84	154	06/09/87	256	11/15/89	70
03/20/84	194	06/15/87	45	01/06/90	263
03/22/84	88	07/10/87	156	01/09/90	216
04/16/84	296	07/29/87	285	01/09/90	216
05/22/84	247	08/01/87	303	01/19/90	286
06/08/84	49	08/11/87	57	01/21/90	26
06/24/84	35	09/02/87	53	04/26/90	149
06/29/84	107	09/25/87	104	05/04/90	108
07/01/84	68	09/29/87	90	05/22/90	129
07/01/84	68	10/01/87	209	05/30/90	255
07/01/84	68	11/02/87	67	06/01/90	263
09/28/84	48	12/14/87	178	06/04/90	239
11/09/84	94	12/29/87	288	06/25/90	292
01/01/85	204	12/31/87	138	08/15/90	71
01/21/85	161	01/01/88	181	09/14/90	170
01/25/85	205	01/04/88	301	10/05/90	3
02/14/85	5	02/09/88	173	10/26/90	165
02/19/85	153	03/11/88	73	11/01/90	232
03/01/85	146	03/31/88	288	12/31/90	169
03/01/85	177	04/22/88	140	12/31/90	7
03/25/85	199	04/28/88	269	01/11/91	186
03/26/85	180	05/24/88	244	01/17/91	109
03/28/85	197	06/13/88	110	03/06/91	305
04/05/85	177	06/29/88	74	03/14/91	133
05/01/85	58	08/02/88	151	03/28/91	116

DATE	PLAINTIFF #	DATE	PLAINTIFF #
03/29/91	81	12/16/94	96
04/12/91	220	12/19/94	310
04/15/91	174	12/28/94	64
05/24/91	130	01/07/95	304
07/12/91	105	01/12/95	313
08/02/91	99	02/17/95	102
08/09/91	258	02/28/95	318
09/01/91	212	03/16/95	122
09/15/91	245	04/26/95	307
10/28/91	233		
10/31/91	167		
11/00/91	186		
11/11/91	32		
11/29/91	92		
12/15/92	321		
12/16/91	306		
12/24/91	259		
01/01/92	179		
01/17/92	34		
03/05/92	171		
04/14/92	27		
04/27/92	149		
04/27/92	253		
05/27/92	13		
05/27/92	13		
06/09/92	31		
06/19/92	293		
06/19/92	191		
07/17/92	127		
08/05/92	20		
10/16/92	291		
11/23/92	196		
01/11/92	257		
03/01/92	84		
03/01/93	289		
04/24/93	310		
05/14/93	228		
05/17/93	229		
06/22/93	238		
11/00/93	257		
01/07/94	300		
03/31/94	264		
03/31/94	290		
05/13/94	317		
08/29/94	307		
10/04/94	302		
10/10/94	312		
10/17/94	322		
10/31/94	314		
11/10/94	315		
11/30/94	309		