EVERGLADES RESTORATION: A CONSTITUTIONAL TAKINGS ANALYSIS

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I. INTRODUCTION

Courts and commentators frequently describe one area of constitutional takings jurisprudence as straightforward and unambiguous: government action which results in a permanent physical invasion and occupation of private property will require compensation.[1] In contrast to the deep complexities in the area of regulatory takings, it is clear that private property may not be *physically* conscripted for the public good without payment of just compensation.[2] Justice Scalia, in *Lucas v. South Carolina Coastal Council*,[3] described physical takings as "discrete categories of regulatory action [which are] compensable without case-specific inquiry into the public interest advanced in support of the restraint. In general (at least with regard to permanent invasions), no matter how minute the intrusion, and no matter how weighty the public purpose behind it, we have required compensation."[4]

The profound ecological crisis of the Florida Everglades and the South Florida ecosystem[5] compels various ongoing and possible future restoration endeavors, which this article will describe as "reversionary engineering." This process entails the dismantling or modified management of previously constructed flood control structures. The goals are to restore the hydrology of the region to more closely approximate pre-flood control and pre-drainage groundwater levels, flooding and sheet flow dynamics; effect the "unchanneling" of once meandering rivers; and transform agricultural or residential lands to wetlands.[6] Such reversionary engineering, when of a scope sufficient to save the ecology of the region from progressive degradation, will affect thousands of acres of now pri vately owned lands by the intermittent but arguably "permanent invasion" of floodwaters or elevated groundwaters.[7]

At first blush the categorical rule for physical takings appears to impose, if not a roadblock, at least a highly expensive toll highway upon federal, state, or local government endeavors to restore the hy drology of the Everglades region. Under the *Lucas* Court's formula, for example, is not the flooding of agricultural lands, as a consequence of government action, rendering it unusable for crop production, let alone residential development, a *per se* taking, no matter how "weighty the public purpose behind it"?[8] Largely because of this seemingly self-evident fact, most projects underway or under consideration to date contemplate the voluntary acquisition or eminent domain condemnation of lands sufficient to cover the area impacted by wetlands and flood and sheet flow system restoration at a very

substantial public expense.[9] However, no governing case law squarely addresses the unique legal issues associated with the intersection of constitutional takings law and hydrologic restoration projects.

No court has yet *compelled* a government to pay compensation for the hydrologic effects of reversionary engineering. Scrutiny of these issues reveals that the result of a careful judicial analysis would not necessarily require the application of the categorical physical takings rule. A key feature of reversionary engineering which distinguishes it from the traditional physical takings case is that the government action does not impose an entirely new burden on property which, but for the government action, it would never have sustained. Quite unlike the conventional physical invasion case, reversionary engineering restores land to a natural condition which would have existed, but for the consequences of largely government-funded channeling, drainage, and other flood control projects.[10]

The distinguishing characteristics of reversionary engineering raise perplexing questions not found in any of the traditional physical invasion scenarios: When is a landowner entitled to claim a compensable property interest in a condition on her property created solely at government expense? Is a government entitled to alter a project in response to newly perceived and understood adverse environmental consequences, without paying compensation to affected landowners? Is it not arguable that no "taking" has in fact occurred in these instances?

Even where a government elects to lessen its exposure to protracted litigation by using eminent domain to acquire properties, it may have to resolve related issues before determining an accurate fair market value. To what extent, for example, is the value added as a consequence of government drainage projects an "artificially inflated" value which the government need not compensate? When government creates new land through drainage and rechanneling projects on the previous site of sovereign navigable waters, who owns that land and may claim compensation for its "taking"?

The *Lucas* Court, in the context of a regulatory takings analysis, supported "our traditional resort to '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."[11] The courts should look to "background principles of nuisance and property law" to determine whether the activity which regulation prohibits on a plaintiff's land is an activity which the plaintiff would otherwise have a reasonable expectation of conducting.[12] In accordance with the approach counseled by *Lucas* , this article will explore "background principles" of flood damage, water rights, and flood protection law and identify guiding principles to address these various questions related to the constitutional implications of hydrological restoration projects.

II. THE "CATEGORICAL" LAW OF PHYSICAL TAKINGS

The Takings Clause of the Fifth Amendment, made applicable to the states through the Fourteenth Amendment, provides: "[n]or shall private property be taken for public use, without just compensation."[13] Until the watershed case of *Pennsylvania Coal v. Mahon*,[14] this clause was commonly construed as limited in its applicability to cases of outright appropriation, or of physical encroachment and occupation.[15] *In Pennsylvania Coal*, Justice Holmes concluded that the Takings Clause could apply to regulatory limitations on the use of property, and stated that "while property may be regulated to a certain extent, if regulation goes too far it will be recognized as a taking."[16] *The Pennsylvania Coal* analysis has spawned generations of court decisions, and an abundance of commentary, exploring the subject of how much regulation is "too far."[17]

In the wake of this jurisprudential explosion, the subject of physical takings was left in relative obscurity and inactivity. If any tendency can be discerned in the courts, it is to contrast the complexity of regulatory takings analyses with the relative simplicity of physical takings law. In its comprehensive analysis of the then-exist ing law of takings, the Supreme Court in *Penn Central Transportation Co. v. New York City*,[18] observed that the Court "quite simply, has been unable to develop any 'set formula' for determining when `justice and fairness' require that economic injuries caused by public action be compensated by the government . . ."[19] The Court noted, however, that the "character of government action" may have particular significance in the "ad hoc" analysis of each case.[20] For instance, in *United States v. Causby*,[21] the Court had held that frequent flights of military aircraft at low altitudes over the plaintiff's prop erty was a compensable taking, where the impact of the flights diminished, but did not destroy, the value of the property.[22]

In *Loretto v. Teleprompter Manhattan CATV Corp.*,[23] the Court took a further step in defining the applicable standard for physical takings analysis. In *Loretto*, the statute at issue was a New York law requiring landlords to allow television cable companies to install cable facilities on their apartment buildings.[24] The precise amount of space occupied by the cable facilities at issue was at most one and one-half cubic feet of a five story apartment building.[25]

The Court, through Justice Marshall, conceded that facilitating the availability of cable

television served a valuable public purpose, and in fact enhanced the value of the apartments for the plaintiff's tenants. Nevertheless, the Court concluded that "a permanent physical occupation authorized by government is a taking without regard to the public interests that it may serve."[26] It further stated that "[i]n such a case, the property owner entertains a historically rooted expectation of compensation, and the character of the invasion is qualitatively more intrusive than perhaps any other category of property regulation."[27] A strong dissent by Justices Blackmun, Brennan and White accused the majority of an inherent inconsistency because it "acknowledge[d] [the Court's] historical disavowal of a set formula in almost the same breath as it construct[ed] a rigid per se takings rule."[28]

The *Loretto* Court's articulation of a standard for physical takings led to Justice Scalia's observation in *Lucas* that physical takings "at least with regard to permanent invasions" were compensable "no matter how minute the intrusion, and no matter how weighty the public purpose."[29] An analysis of decisions both before and after *Lucas* suggests, however, that Justice Scalia's synopsis of physical takings law in dictum is appropriately qualified in two important respects. First, and particularly relevant to the subject of this article, physical takings are limited by "existing rules or understandings that stem from an independent source such as state law,"[30] in the same manner that regulatory takings were so described in *Lucas* . Second, it is now clear that government may impose permanent invasions of private property as *conditions* to the grant of other public benefits, such as building permits and zoning approvals, provided that the requirement is "related both in nature and extent to the impact of the proposed development."[31]

Though the majority opinion in *Loretto* observed that it is gener ally true that a property owner "entertains a historically rooted expectation of compensation"[32] from physical invasions, such historical expectations do not arise in every case. This was the teaching of Justice Holmes in *Jackman v. Rosenbaum Co.* ,[33] decided by a unanimous Court in the same term as *Pennsylvania Coal v. Mahon* .[34] *In Jackman* , the Court addressed a constitutional challenge to a party wall statute, which authorized a landowner to build a party wall, even if it entailed removing and replacing an existing wall of an adjoining landowner, without paying compensation to the adjoining landowner. The statute authorized a physical invasion by a third party, and one clearly more substantial, more disruptive, and more permanent than occasioned by the cable installation in *Loretto* . Nonetheless, the Court found the statute was not a taking, as "the custom of party walls was introduced by the first settlers in Philadelphia under William Penn," and that custom implicitly qualified the "right" to be free from physical intrusions.[35] As will be explored below, where the "right" to be free from flooding has been historically qualified by the forces of nature, the Fourteenth and Fifth Amendments are similarly unlikely to create new entitlements to compensation.

III. INVASION BY FLOODING: WHAT CONSTITUTES A TAKING?

Flooding as a consequence of reversionary engineering is a new and legally uncharted phenomenon. But for more than a century the courts have analyzed the rights of private property owners subjected to varying degrees of flooding as a direct or indirect consequence of public works projects. An analysis of these cases reveals two general principles which may bear significantly on the legal interpretation of reversionary engineering: (1) when governments intentionally obstruct natural water flows and consequently cause permanent or recurring periodic flooding, courts will find a compensable taking; (2) when, either through negligence or simple impossibility, government flood control projects do not effectively reduce natural flooding, even where the project increases the magnitude or frequency of natural flooding, courts generally will not find a taking.

A. Public Works for Navigational Improvement

The seminal flood takings case is *Pumpelly v. Green Bay Co.* [3]*6 In Pumpelly*, the Green Bay and Mississippi Canal Company had constructed a dam pursuant to state statute to improve the navigation of the Fox River.[37] The dam caused the overflowing of 640 acres of the plaintiff's land, "the water coming with such a violence . . . as to tear up his trees and grass by the roots, and wash them, with his hay by tons, away, to choke up his drains and fill up his ditches . . ."[38] The defendant argued that the state had "the right and power of improving the navigation of the river, and may improve it without liability for remote and consequential damages to individuals."[39] The Supreme Court disagreed, stating "[w]here 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, it is a taking, within the meaning of the Constitution . . ."[40]

In *United States v. Lynah*,[41] the federal government had erected a dam on the Savannah River, also for the purpose of improving navigation. The dam raised the level of the river at the plaintiff's rice plantation, interfering with operation of the plantation's drainage system and causing a "superinduced addition of water" of approximately eighteen inches.[4]*2 The Lynah* Court held that because the flooding was a permanent condition which destroyed the agricultural capacity of the plantation and left it as an "irreclaimable bog," the property no longer had value.[43] The Supreme Court, following *Pumpelly*, found 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 Fifth Amendment."[44]

Both *Pumpelly* and *Lynah* concerned a total deprivation of value as a consequence of government public works. A later case, *United States v. Cress*,[45] made it clear that a partial taking could be found as a consequence of flooding as well. In *Cress*, a dam and lock constructed as navigation improvements to the Kentucky River caused a permanent condition which subjected the plaintiff's land to frequent overflows of water from the river.[46] The flooding did not render the land valueless, but allegedly caused its value to depreciate by half.[47] The Court found a partial compensable taking, holding that "[t]here is no difference of kind, but only of degree, between a permanent condition of continual overflow by backwater and a permanent liability to intermittent but inevitably recurring overflows; and, on principle, the right to compensation must arise in the one case as in the other."[48] Similarly, in *United States v. Dickinson*,[49] the Court found that a dam project had resulted in the taking of an "easement for intermittent flooding," for which compensation was ordered.[50]

B. Flood Control Projects

In the foregoing cases takings were found when the government's attempt to improve navigation caused flooding on private property where none had existed before. However, when government seeks to affirmatively benefit private property through flood control engineering which somehow fails to constrain the damaging effects of natural forces, the general rule is that the government is not liable to pay compensation for a taking.[51]

In *Sanguinetti v. United States*,[52] the plaintiff owned land, situated between two rivers, that had "always been subject to inundation by overflow therefrom, as well as by reason of periodic heavy rainfall."[53] In an effort to control flooding in the area, the government constructed a canal between the two rivers.[54] A levee built with fill along one side of the canal had the unintended effect of acting as a dam, and the plaintiff's land flooded more frequently in years following the construction project.[55] The Supreme Court rejected the plaintiff's taking claim, stating that "in order to create an enforceable liability against the government, it is, at least, necessary that the overflow be the direct result of the structure, and constitute an actual, permanent invasion of the land, amounting to an appropriation of and not merely an injury to the property."[56] The Court appeared most persuaded by the fact that, unlike the previously discussed cases where the land in question had not been subject to flooding prior to the government project, here the project simply aggravated a natural condition: "[t]he most that can be said is that there was probably some increased flooding due to the canal and that a greater injury may have resulted than otherwise would have been the case."[57]

Two lower federal court decisions appear to depart from the Supreme Court's analysis in *Sanguinetti*, finding aggravation of pre-existing flooding compensable. In *Jacobs v. United States*,[58] the Fifth Circuit distinguished *Sanguinetti* primarily on the basis of the trial court's finding in *Jacobs* that statutory language authorizing the public works in question expressly contemplated that property owners would be compensated for consequent harm, constituting an "implication of a promise" to pay.[5]*9 In King v. United States*,[60] the Court of Claims cited, and perhaps miscited, *Jacobs* as standing for a general proposition that "where property on a river is subject to intermittent overflows in its natural state and the construction of a down-river[sic] dam makes it more subject to overflows than before, the difference is merely one of degree for purposes of compensation."[61]

With *King* excepted, the Federal Claims Court, which has jurisdiction under the Tucker Act[62] over takings claims against the United States, has consistently followed *Sanguinetti* and denied flood takings claims where pre-project flooding or groundwater saturation conditions raise substantial questions concerning causation. For example, in *Leeth v. United States*,[63] the court held the plaintiffs failed to make a prima facie case of a Fifth Amendment taking where property had been particularly susceptible to flooding prior to construction of a dam, even though government hydrology studies showed limited incremental increases in elevation and duration of flooding attributable to dam.[6]*4 In Laughlin v. United States*,[65] the court held there was no taking although a marsh created by a flood control project may have increased groundwater levels, where land was always subject to the risk of continuous periodic overflows by floodwater.[66]

C. Florida Authorities

In flood takings cases, Florida state courts have followed the *Sanguinetti* analysis, declining to find a taking where pre-project flooding was at most aggravated by public works.[6]*7 In Arundel Corp. v. Griffin*,[68] the plaintiff alleged that the Arundel Corporation and the Everglades Drainage District had negligently constructed drainage works, causing damage through increased flooding. Prior to the construction, the plaintiff's property was "peculiarly subject to heavy and continued overflow in unusual rainfalls[.]"[69] The Florida Supreme Court found there was no taking based on its finding that the construction did not physically invade the plaintiff's property or cause permanent overflow.[70]

In *Poe v. State Road Dept.* , [71] the plaintiff owned a truck farm, a portion of which was subject to infrequent flooding during heavy rainfall. The state redesigned the drainage system of a nearby state highway in a way that the plaintiff alleged caused flooding to his property after normal rainfall, rendering it unsuitable for farming.[72] The court denied compensation based in part on its finding that the plaintiff failed to establish the state's actions resulted in permanent overflowing or physical invasion.[73]

D. Summary

In sum, two common themes can be deduced from these flood takings cases. First, where government public works create artificial structures which cause flooding where no such condition naturally existed, little question exists that a compensable physical taking has occurred.[74] Government, in effect, invades and occupies private property by means of the artificial diversion of natural forces. Where, however, some, even intermittent, flooding characterized the natural state, there is far less certainty that courts will find a physical taking by the government.[75] Even with little factual question that government activity aggravated the flooding frequency or duration, courts are more likely to treat the flooding as a noncompensable injury rather than a constitutional taking.[76] These decisions effec tively remove accountability from government for compensation for the diminished utility of land which is primarily the consequence of pre-existing natural forces. Government may attempt to control the natural forces, but if unsuccessful, courts will generally not require government to pay the consequences.[77]

These precedents allow the prediction that flooding which stems from reversionary engineering —restoring land to its pre-flood control condition or establishing some intermediate condition of lesser flood control—would also not automatically be considered a taking by physical invasion. The fact that in a reversionary engineering case the flooding is predictable and intentional, whereas in the foregoing flood control cases the flooding was generally negligent or in advertent, would undoubtedly give a court some pause.[78] However, as indicated in the cases discussed below,[79] even an intentional bal ancing of values which results in a lessening of flood control protection has survived constitutional challenge.

IV. GOVERNMENT ALTERATION OF FLOOD CONTROL PROJECTS: COMPENSABLE TAKING OR PREROGATIVE?

A. Federal and Non-Florida Authorities

Does government construction of flood control projects which positively benefit private property create an entitlement allowing the property owner to prevent the government from

altering the project to her consequent disadvantage or to receive compensation for a taking? Put another way, is it government's prerogative to undo what it has done?

A 1924 Minnesota case is the earliest one addressing this issue. In *Lupkes v. Town of Clifton*,[80] the plaintiff was a farmer whose land traversed a wide and shallow natural ravine which carried flood waters across the plaintiff's fields.[81] At some time in the past, the county had constructed drainage ditches along the northern and southern boundaries of the plaintiff's farm, intersecting the natural ravine at right angles.[82] Just to the north of the southerly ditch, the county constructed an embankment with the fill removed in ditch construction to serve as a county road.[83] The southerly ditch and embankment diverted flood waters off of the plaintiff's land in the natural ravine and down the ditch, presumably making the land more amenable to agriculture. The court emphasized the "significant fact" that the south half of the plaintiff's farm "was subjected to a very substantial assessment and the resulting tax because of the benefits considered . . . to result to that land, through the construction of the ditch."[84]

The litigation arose when the county determined that the force of the flood waters from the ravine was washing away the county road, and that an effective remedy for the situation was construction of a bridge in the embankment, which would allow the waters to resume their original course across plaintiff's land in the ravine. The plaintiff brought suit to enjoin the opening of the embankment. The county contended that its duty was to maintain the road and it had the authority to remove the embankment and install a bridge.[85]

The court acknowledged the plaintiff had no original right to compel the county to protect his lands from flooding.[86] The question presented was whether the plaintiff had, because "the natural status has been changed by the establishment of the ditch, . . . a resulting property right, appurtenant to the land, to the maintenance of the changed status."[87] In finding for the plaintiff, the court placed principal reliance on the fact that the flood control project was originally financed by a special assessment which the plaintiff had been required to pay.[88]

An opposite result has obtained, however, where there is no evidence that the landowner has been specially assessed for the cost of flood control projects. The leading case in this area is *United States v. Sponenbarger*.[89] *In Sponenbarger*, a property owner in the Mississippi River flood plain brought a takings claim against the federal govern ment in connection with flood control activities implemented under the Mississippi Flood Control Act of 1928.[90] The Act implemented a system where spillways would be placed at predetermined points to release waters contained by the levees under flood conditions.[91]

The plaintiff's property lay within the area of a floodway to be created by one of the proposed

spillways, which was also a natural floodway.[92] The plaintiff contended that the planned spillway exposed her property to possible jeopardy, and the consequent diminished market value constituted a taking compensable under the Fifth Amendment.[93]

Ultimately, the Supreme Court held no taking had occurred, reasoning that the plaintiff's land had always been subject to unpredictable flooding without the government plan.[94] The Court laid heavy emphasis on the condition of the plaintiff's land prior to the institution of any flood control measures:

> This record amply supports the District Court's finding that the program of improvement under the 1928 Act had not increased the immemorial danger of unpredictable major floods to which respon dent's land had always been subject. Therefore, to hold the Government responsible for such floods would be to say that the Fifth Amendment requires the Government to pay a landowner for damages which may result from conjectural major floods, even though the same floods and the same damages would occur had the Gov ernment undertaken no work of any kind. So to hold would far exceed even the "extremist" conception of a "taking" by flooding within the meaning of that Amendment. For the Government would thereby be required to compensate a private property owner for flood damages which it in no way caused.[95]

In focusing on the condition of the plaintiff's property before flood control, the Court was apparently unimpressed by the significance of the plaintiff's more time-limited argument that the l928 flood control provisions would more adversely impact her property than the previous uninterrupted levee system.

In *Kirch v. United States* ,[96] another imperiled property owner in the Mississippi flood plain brought suit against the federal government. The plaintiff had purchased a tract of land in 1918 on the banks of the Mississippi River, in an area that had been subject to continual encroachment of the river due to erosion.[97] In l925, the government built a levee, set back from the original 1879 levee, which protected the plaintiff's property from flooding.[98] Pursuant to a new flood control effort in l930, portions of the 1925 levee were strengthened and enlarged.[99] However, in the vicinity of the plaintiff's land the l925 levee was left untouched and a newer and larger set-back levee was constructed well behind the older levee. The construction left a pocket of 153 acres of the plaintiff's land between the old and the new levees.[100] To the north and south of the plaintiff's land, the new levee connected with the reconstructed l925 levee.[101] Upon construction of the new levee, the old levee "was left to the destructive effect of natural forces."[102]

In l937, the old levee caved in, causing twelve to fourteen feet of flooding. Although the

waters receded, recurrent flooding thereafter rendered the success of the plaintiff's farming unpredictable, forcing the plaintiff to move his residence off the land.[103] Despite the substantial impact the new flood control strategy had on the value of the plaintiff's property, both before[104] and after the flooding, the Court of Claims rejected the plaintiff's Fifth Amendment claim:

> [T]he flood control act did not, in itself, assume responsibility to an owner of riparian land for damages that might be consequential or that might arise as an incident to the construction of levees along the Mississippi River or the construction of set-back levees. Nor did the act assume responsibility for damages to private property which might, as in the case at bar, result from the failure of the Government to construct and maintain a riverside levee of sufficient grade and strength as would insure an owner, whose land lay immediately behind such old levee, against the natural consequences of encroachment of flood waters of a river upon that levee. Plaintiff's claim for a taking can have its foundation only upon the assertion that it was the duty of the Government to provide complete protection to lands situated behind the old river-front levee. The Government is under no legal obligation to construct and maintain levees that will protect every riparian owner.[105]

Even where property owners are specially assessed for a drainage project, they have no entitlement to prevent government from restoring water levels to that originally contemplated by the project. In another Minnesota case, *In re Lake Elysian High Water Level*, [106] a county constructed a drainage ditch to enlarge the outlet of Lake Elysian, a "meandered body of clean and clear water with well defined banks, containing fish of many kinds, with a large watershed estimated at some 50 square miles."[107] The purpose of the project was to allow more effective drainage of the surrounding slough lands and to control flooding of the low lands surrounding the lake's shore. Pursuant to Minnesota law, the plaintiff property owners were assessed for the benefits of the project.[108]

During the course of the ensuing thirty-three years, natural forces of erosion deepened and enlarged the humanly engineered ditch, resulting in more drainage of the lake than originally contemplated, and a lowering of the mean high water level by three and one-half feet. This lowering of the water level caused the lake to become polluted, giving the lake a yellow, muddy color, rendering it unsuitable for swimming, and damaging fish life.[109]

In what is perhaps the earliest instance of reversionary engineering in the case law, the Minnesota Commissioner of Conservation decided that "a restoration of the lake level to what it was prior to the construction of the ditch will prove of public benefit by restoring its recreational facilities."[110] The Commissioner undertook to accomplish this restoration by construction of a dam at the lake outlet, recognizing that:

> restoration of the water level, such as ordered, would cause sub stantial damage to lands 'adjacent to and in the vicinity' of the lake. Their use 'will be substantially depreciated'; that the owner of a farm who has at an expense of approximately $5000 laid tile into the lake upon the assumption that the lake as thus lowered would remain will suffer substantially a total loss to his tiling system and to the property served by it.[111]

Although the affected property owners did not assert a consti tutional claim, they did contest, in administrative proceedings, the authority of the Commissioner to restore the lake to its original water level.[112] Relying on *Lupkes* , the district court, on appeal from the administrative proceedings, agreed with the property owners.[113] The Minnesota Supreme Court reversed, finding that the original drainage project did not contemplate a permanent lowering of the lake, and that the property owners were not entitled, by their assessment and the *Lupkes* rule, to any added entitlements beyond the flood control benefits for which they were assessed.[114]

The Minnesota Supreme Court also disagreed with the property owners' contention that the long period of time in which their lakeside property had remained in a drained condition acted to foreclose the government from the option of restoring original water levels.[115] The court stated that it was not "persuaded that the long delay occurring between the establishment of the ditch and the present proceedings in any way tends to diminish the state's right to proceed as here. As against the sovereign, absent statutory limitation, no prescriptive rights can be obtained by anyone."[116]

Similarly, in *Drainage Dist. No. 2 v. City of Everett* ,[117] the Supreme Court of Washington held that a public owner of a long-standing dam had the prerogative to remove the dam, despite the objections of downstream owners.[11]*8 In City of Everett* , the city was the successor in interest to a water company, which had acquired the right in 1901 to "perpetually divert and impound" the waters of Woods Creek, a natural channel with a daily water flow of two and one-half to four million gallons.[119] The water company constructed two dams and reservoirs, impounding virtually all of the water in the creek. Landowners subsequently filled in the creek bed for agricultural use during the ensuing quarter century. Landowners also formed a county drainage district and constructed various drainage improvements, none of which contemplated, or were prepared to cope with, any restoration of water flows of the original creek.[120]

In 1931, the city decided to abandon the water system.[121] The water in the reservoirs was allowed to gradually escape and flow down the natural bed of the stream. The drainage

district brought suit for damages sustained by sedimentation of its drainage ditches, and sought to enjoin the city from permitting the water to flow through the original channel of Woods Creek.[122] The district argued that because the city diverted and impounded water for thirty years, it constituted a permanent change, and that the district was entitled to a continuance of the artificial condition.

The Washington Supreme Court rejected this argument, reasoning that the right to maintain the dam, "like other rights, could be abandoned," and that the city could not be compelled to maintain the dam for the benefit of the lower landowners:

> The acquisition of the right to divert the waters and to maintain a reservoir for impounding those waters, though that artificial condition was maintained by appellant for the prescriptive period, carried with it no reciprocal right to have its maintenance continued for the benefit of the servient estate . . . "An artificial condition of a water course may be established which, in favor of its owner, may be as permanent as though the condition was natural, and that the acquisition of a right to maintain this condition carried with it no reciprocal right to have it maintained."[123]

Lastly, one significant case affirms the ability of a federal agency to abandon, mid-way, a reclamation dredge and fill project over the objection of property owners, where newly arisen environmental concerns override the public interest in land reclamation. In *Creppel v. U.S. Army Corps of Engineers*,[124] Congress passed the Federal Water Pollution Control Act Amendments of 1972,[125] while the Army Corps of Engineers (Corps) was engaged in Phase II construction of a flood control and land reclamation project involving the planned drainage of a 3,700 acre tract of wetlands in the Mississippi bayou.[126] The Act mandated Environmental Protection Agency (EPA) permits for the discharge of dredge or fill material into navigable waterways.[127] The Corps delayed the project pending EPA review. Subsequently, the EPA review found "that the permanent blockage of the bayous and the drainage of the interior would result in the irretrievable loss of valuable wetlands, having an unacceptable adverse impact on wildlife and recreational areas and would not be in the public interest."[128]

In response to the EPA's objections, the Corps decided to modify the project to eliminate construction of the pumping station which would drain the plaintiffs' lands. The Corps also ordered that certain "earthen dikes . . . be removed and replaced with movable floodgates to restore and maintain normal water flows."[129] The landowners whose land would have been drained brought an action seeking to compel completion of the project as originally planned on the basis that the Corps was bound by its original determination that the benefits of the project outweighed its costs.[130]

In dismissing the suit, the district court noted the Corps had an "affirmative duty," not only under the newly amended Federal Water Pollution Control Act, but also under the Flood Control Act and the Rivers and Harbors Act,[131] to effect environmental preservation when authorizing a project involving dredging and filling in navigable waters.[132] The court reviewed detailed findings by the EPA in a 1976 study which underscored the importance of the wetlands for maintenance of a salinity gradient necessary to "the continued pro duction of estuarine dependent species such as the commercial fish and shellfish," a gradient which would be disrupted by the proposed pumping station.[133] The court also cited the importance of the wetlands tract for supporting "flora and fauna which are of direct value to man for recreation, fishing, aesthetics and timber production."[134]

The district court concluded that "the Corps has the authority to modify a project as it progresses and it is not an abuse of discretion to alter the original project where flood control purposes continue to be served."[135] The plaintiffs argued that the project as altered would not provide any flood control benefits, because without the pumping station, flood control levees would serve under certain conditions to impound, rather than to protect against, encroaching high waters. The court found that the Corps had not abused its discretion in determining that the risks from the impoundment of some waters did not outweigh the harm from destruction of the wetlands, and that there was still some hurricane and flood protection from the project as modified.[136]

Lastly, the district court easily dismissed the plaintiffs' constitutional claim that their property was taken without just compensation because they would be unable to develop it for industrial and residential purposes.[137] On appeal, the Fifth Circuit Court of Appeals generally affirmed the district court's analysis, finding that "[t]he hand that approves projects initially has the implied power to change their course,"[138] but reversed and remanded on the narrow issue of whether the Corps had fulfilled certain statutory mandates regarding assurance of local cooperation with the project as revised.[139]

B. Florida Cases

The issue of the constitutional implications of reversionary engineering has been raised in two recent Florida cases. In the first case, *Bensch v. Metropolitan Dade County*, [140] the District Court for the Southern District of Florida concluded, consistent with the authorities discussed herein, that a requisite of a successful takings claim with respect to modification of a drainage/flood control project is a showing that the modification did more than eliminate drainage benefits, and actually increased flooding over pre-project conditions.[141]

In *Bensch*, landowners in an eight and one-half square mile area in the East

Everglades brought suit against the South Florida Water Management District (SFWMD), contending that emergency relief measures taken by SFWMD to restore water flows to the Everglades National Park acted to artificially elevate their ground water levels. The plaintiffs asserted this subjected them to increased risks of flooding, and actual flood damage.[142] The plaintiffs further contended that these effects had "driven [their] land values toward zero; prevented them from obtaining financing or from selling their property; and damaged their roads, personal property, trees and other land improvements."[143]

SFWMD moved to dismiss, asserting in part that the plaintiffs failed to allege that the flooding was caused by affirmative government action, rather than natural causes.[144] SFWMD relied substantially upon an analysis of *Sponenbarger* and *Creppel* .[145] The plaintiffs did not dispute the application of these cases, nor did they dispute that they had to prove SFWMD's actions had increased flooding over pre-drainage conditions. The plaintiffs argued that the complaint was broad enough to encompass such a claim, and they were "wil ling to prove it."[146] The district court, after a discussion of both *Sponenbarger* and *Creppel* , agreed with SFWMD's contention that "[i]t was a logical extension of *Sponenbarger* and *Creppel* to conclude that no taking had occurred where the government had modified a flood control project to eliminate drainage benefits, which it had no duty to provide in the first instance."[147] Since the plaintiffs appeared to have alleged flooding in excess of pre-drainage conditions, the court sustained the sufficiency of the allegations of the complaint in this respect.[148]

In the second Florida case, the constitutional issue was raised but not addressed substantively. In *South Dade Land Corp. v. Sullivan* ,[149] property owners and farmers in South Dade's "Frog Pond" area asserted the Corps and SFWMD intentionally failed to prevent flooding from the Everglades National Park into agricultural areas to the east, violating various statutory duties, and amounting to an uncompensated taking.[150] The plaintiffs later voluntarily dismissed the case.[151]

Lastly, though it is a regulatory rather than a physical takings case, the leading Florida decision of *Graham v. Estuary Properties, Inc.* ,[152] is likely to figure prominently in the judicial evaluation of a reversionary engineering taking case. In *Estuary Properties* , the respondent Estuary Properties owned 6,500 acres on the southwest coast of Florida, only 526 of which were dry enough to be classified as nonwetlands.[153] Estuary sought approval of a development plan which would dredge and fill thousands of acres, destroying 1,800 acres of black mangroves and constructing 26,500 dwelling units, plus eleven commercial centers and various recreational facilities.[154] The regional planning council denied the application, finding that

the proposed development would increase the risk of pollution to the surrounding bays, and thus adversely affect the commercial fish ing, shellfishing, and sport fishing industries.[155] The council indi cated that it would consider an application to construct fewer than half of the proposed dwelling units, limited to the upland acreage, leaving the submerged mangrove forests undeveloped.[156]

The First District Court of Appeals held that such a substantial limitation on the use of Estuary's property constituted a compensable taking.[157] The Florida Supreme Court reversed, finding the proposed restrictions on Estuary's use of its property a valid exercise of the police power, which did not totally deprive Estuary of any beneficial use of the property.[158] The court noted that the land in question was close to navigable waters held in trust by the state for the benefit of the public.[159] The court concluded that "[a]n owner of land has no absolute and unlimited right to change the essential natural character of his land so as to use it for a purpose for which it was unsuited in its natural state and which injuries [sic] the rights of others."[160] The court suggested that the proposed development presented "exceptional circumstances because of the interrelationship of the wetlands, swamps, and natural environment to the purity of the water and natural resources such as fishing."[161]

Similarly, the interrelationship of the wetlands, swamps, and natural environment to the purity of the water and natural resources such as fishing forms the nexus of the ecological argument for reversionary engineering projects in the Florida Everglades.[162] The Florida Supreme Court's recognition, in *Estuary Properties* , that this interrelationship constituted "exceptional circumstances" under which a taking claim would be subject to particularly critical scrutiny, certainly would carry over into the reversionary engineering context. Likewise, if a property owner has "no absolute and unlimited right to change the essential natural character of his land so as to use it for a purpose for which it was unsuited in its natural state[,]"[163] it is not an unreasonable further step to conclude, following *Lake Elysian* , *City of Everett* , and *Creppel* , that the property owner has no absolute right to prevent the government from altering flood control systems to restore the essential natural character of the land.

C. Florida Commentary

Without addressing the particular question of a government's right to alter a flood control project which diminishes a property owners' protection, the authors of the authoritative treatise on Florida water law address the converse problem of whether a landowner who has been receiving water from a man-made channel can claim the right to the continuation of the flow on the basis of estoppel.[164] Maloney cites Weil for the proposition that the landowner has no such entitlement.[165]

In a more recent analysis of western water rights law and this converse problem of constitutional entitlement to diversion of waters onto, instead of away from, private property, Joseph Sax reaches a similar conclusion that there should be no Fifth Amendment takings consequences to government diminishment of prior water diversion to address environmental concerns.[166] If investment in reliance on the continued artificial diversion *to* property does not create an entitlement to continued diversion, one might query why investment in reliance on the continued artificial diversion of water *away* from property should create such a right.

D. Summary

The *Bensch* federal district court decision did not afford a full testing of the issues of the constitutional implications of reversionary engineering because the plaintiffs elected not to challenge SFWMD's analysis of those issues. The court's approval of that analysis, based on *Creppel* and *Sponenbarger* , appears well founded. It is clearly an expansion of the *Creppel* analysis to construe reversionary engineering as a "change of course" of a flood control and reclamation project undertaken decades ago. The critical factual distinction on which property owner interests are likely to rely is the fact that in *Creppel* no land had yet been re-claimed, and reasonable "investment-backed expectations" in an engineering plan on the drawing board are less well-founded than expectations based on projects actually completed and functioning.[16] *7 Lake Elysian* and *City of Everett* suggest, however, that passage of time is no bar to the government's efforts to restore water levels to their natural condition, and that even possession and use of drained land may not, under a state's common law, create a reasonable investment- backed expectation of permanent use.

In this respect the *Kirch* case is also directly supportive of the case for the entitlement to reversionary engineering. In *Kirch* , the land owner had the protection of the 1925 levee for five years before government plans sought to substitute a set-back levee as the primary flood control levee, and for a total of 12 years before the 1925 levee collapsed through maintenance neglect and natural forces.[168] One might argue that in *Kirch* the decision to move the levee back and to eliminate the protection of 153 acres of plaintiff's land was practically compelled by the ineluctable forces of the encroaching river. However, the increasing pathology of the Everglades ecosystem, as a consequence of earlier drainage and flood control systems, like the yellow, muddy, unswimmable Lake Elysian, is an analogous imperative natural force compelling rethinking and readjustment of flood control systems.

At a minimum, it is clear from the cases discussed in the preceding two sections that courts have paid careful attention to the property's original, natural condition in evaluating flood takings claims and their corresponding causation issues. The courts have given deference to

government agencies who alter public works projects in response to concerns regarding natural conditions. These facts, both uniquely relevant to an analysis of flood by reversionary engineering scenarios, suggest that courts should give considerable pause before applying a categorical physical takings rule in this context. They also speak against applying the second categorical takings rule identified in *Lucas* , where a regulation "denies all economically beneficial or productive use of land."[169]

Analysis of reversionary engineering consistent with the foregoing cases would suggest that it is the natural hydrology of the Everglades region, and not artificial manipulations of that hydrology by government, which might preclude agricultural or other "productive" uses of lands in the region.[170] Indeed, the foregoing analysis of "background principles" of state and federal law suggests that where government activity is limited to the dismantling of reclamation and flood control structures constructed at government expense, or the management of those structures to more closely approximate natural hydrologic conditions, there has been in effect no taking, and the Fifth Amendment analysis should stop there.

V. THE QUASI- CONTRACT AND ESTOPPEL ARGUMENTS

An argument closely aligned to the concept of "investment-backed expectations" is that the government has represented the permanence of the flood control structures or systems, and that landowners detrimentally made substantial investments in reliance on such representations.[171] A review of the Federal statutes authorizing the reclamation and flood control projects in South Florida discloses little support for the contention that those projects were represented to be permanent and not subject to discretionary modification, particularly modification aimed at ameliorating environmental harm.[172]

Even without such statutorily authorized modification provisions, the proposition that contractual receipt of government benefits may not be legislatively modified has been rejected in an analogous western water rights case. In *Peterson v. United States Department of the Interior* ,[173] the court addressed a claim by western water districts that the Reclamation Reform Act of 1982[174] constituted a Fifth Amendment taking. The Reclamation Act legislated a modification of existing contracts for the provision of irrigation waters, reducing the size of leased tracts eligible for subsidized water rates. Although the court primarily rejected the claim because the districts had not presented a compelling case for their interpretation of the government's contract, the court also suggested that even an undisputed express contractual commitment for the provision of water would generally be subject to sovereign legislative modification.[175]

With respect to the weight to be given to investments made by landowners in contemplation of indefinite continuation of flood protection, the Ninth Circuit in

Peterson was not impressed by claims by the Water District that they, and the property owners whom they served, had made substantial investments based on the expectation of unlimited provision of subsidized water to leased lands:

> The Water Districts offer no authority for the proposition that a constitutionally protected property interest can be spun out of the yarn of investment-backed expectations . . . Whether a "taking" has occurred is the second step of the inquiry. Here, . . . the Water Districts have failed to survive the first step, which is establishing that a property right exists. Thus, the Water Districts' reliance on *Ruckelshaus* is misplaced, leaving them with no support for the curious proposition that investment-backed expectations can give rise to a constitutionally protected property interest.[176]

With respect to the argument that action or inaction by agencies or officials may equitably estop government from withdrawing benefits, under federal law, the general rule is that equitable estoppel is not applicable to the government acting in its sovereign capacity. The only exception to this rule, recognized in the Ninth Circuit, but not embraced as a basis for estoppel by the United States Supreme Court, is in instances of "affirmative misconduct" by government officials.[17]7 *In United States v. Angle* ,[178] another western water rights case, the court held that the historic provision of water to ranchers in amounts in excess of that to which they were legally entitled did not constitute "affirmative misconduct" under this rule."[17]9 *In Office of Personnel Management v. Richmond* ,[180] the Supreme Court held there was no estoppel against the government by claimants seeking public funds. Though the Court declined to state that invoking estoppel against the government would never be possible, it suggested that the occasions for estoppel would be highly exceptional.[181]

The Florida state courts have been somewhat more hospitable to the concept of equitable estoppel against the government.[182] Florida law generally recognizes that a municipality may be equitably estopped from exercising its zoning power when a property owner, relying in good faith upon an act or omission of the government, has made a substantial change in position or incurred such extensive obligations and expenses that it would be highly inequitable and unjust to destroy the rights the owner acquired.[183] The doctrine is much less frequently applied outside of the zoning context in Florida.[184] The applicability of equitable estoppel in the zoning context has been limited in some lower court decisions by the "new peril" exception as when:

> [T]he municipality can show that some new peril to the health, safety, morals, or general welfare of the municipality has arisen between the granting of the

> building permit and the subsequent change of zoning to the detriment of the landowner, the change of zoning may effectively revoke a building permit.[185]

In *Macnamera v. Kissimmee River Valley Sportsman's Assoc.* ,[186] the Florida Second District Court of Appeals rejected an estoppel argument quite like one which might be made by landowners in a rever sionary engineering context.[187] In that case, Macnamara was the owner of various tracts of land bordering Lake Hatchineha at the entrance to the Kissimmee River.[188] During the Central and Southern Florida Flood Control Project's channelization of the Kissimmee River, the spoil from dredging operations was deposited adjacent to Macnamara's tracts, creating a large spoil island rising as high as twenty feet above the water.[189] Macnamara sought to enclose the island with a barbed wire fence, to the distress of the plaintiff Kissimmee River Valley Sportsmans' Association.[190]

After determining the island was sovereignty lands because it lay within the high water boundary of Lake Hatchineha,[191] the court considered Macnamara's estoppel arguments.[192] Macnamara claimed to have a permit to fence the property from the Corps, and alleged verbal authorization by a Florida Department of Natural Resources employee. He also claimed that his ownership of the property was evidenced by the fact that the water management district requested, and received, an easement from him over the property in connection with the channelization, and that he had paid ad valorem taxes on the property.[193] The court rejected the estoppel argument:

> Although equitable estoppel can apply against the state in its sover eign capacity, such claims can be pursued only in rare instances where there are exceptional circumstances . . . Among the elements that must be proven is a positive act by an authorized official, upon which reliance is based . . . Under no circumstance, can the state be estopped by the unauthorized acts or representations of its officers . . . None of the alleged authorizations relied on by the Defendant constitute an act or statement by a state officer authorized to permit private fencing of public land bottoms.[194]

The court further rejected the contention that payment of property taxes could give rise to an estoppel-based ownership claim to sovereignty lands:

> Nor is the possible payment of taxes sufficient to justify equitable estoppel . . . Even if taxes had been paid, such payment cannot form the basis for equitable estoppel because it is the Trustees of the Internal Improvement Fund rather than the tax assessor who are authorized to speak for the state on the subject of boundaries on navigable lake bottoms. § 253.12(1), Fla. Stat. If a taxing error

has taken place, the remedy is a tax refund rather than conversion of lake bottoms to private ownership[195]

In sum, it appears unlikely that either the federal or the Florida courts would apply the doctrine of equitable estoppel to bar reversionary engineering projects initiated by the government to reverse land reclamations and flood control benefits. As in *Peterson v. United States Department of the Interior*,[196] the landowners' private investments based upon an assumption of continued flood control benefits only become relevant if a threshold determination is made that they have a protected property interest in those benefits. The analysis set forth in part IV *supra* suggests that such a threshold determination is unlikely in the reversionary engineering context.

VI. QUANTIFYING JUST COMPENSATION: ISSUES UNIQUE TO REVERSIONARY ENGINEERING

In the face of admitted uncertainty concerning the application of the physical takings rule to Everglades restoration, and the urgent need for action in the face of a continually deteriorating ecosystem, most restoration efforts to date involve the acquisition, voluntary or through eminent domain proceedings, of land affected by reversionary engineering.[197] In the context of such acquisitions, however, there are also issues unique to reversionary engineering situations which should not be overlooked. One is the very basic question of who owns, and can claim compensation for, reclaimed lands which were originally included within the high water mark of navigable waterbodies. The second is whether compensation should be paid for that portion of the value of property which is solely the result of government investment.

A. Ownership of Rechanneled and Reclaimed Waterbodies

When Florida became a state in 1845, it "received title to all lands beneath navigable waters, up to the ordinary high water mark, as an incident of sovereignty."[198] Those sovereign lands included the beds of waterbodies which were "navigable-in-fact," and not merely those actually used for navigation or commercial use.[199] Shortly after statehood, in the 1850's, Congress conveyed approximately twenty million acres of swamp and overflow uplands to the State of Florida. The lands were thereafter vested in the Board of Trustees for the Internal Improvement Fund of Florida. The Trustees were authorized to convey the swamp and overflow lands into private hands, in connection with drainage and reclamation efforts.[200]

In contrast to the swamp and overflow lands, sovereign lands underlying navigable waters were for public use, "not for the purpose of sale or conversion into other values, or reduction into several or individual ownership."[201] Although those lands were "subsequently assigned

to the Trustees [of the Internal Improvement Fund], the Trustees' authority to dispose of the land was rigidly circum scribed by court decisions and was separate and distinct from their authority to dispose of swamp and overflowed lands."[202]

1. Accretion and Evulsion

Like much in nature, the location of waterbodies is not immutable. They may change through gradual erosion and accretion, or they may suddenly change through earthquakes and other geological events. The general common law rule, followed in Florida, is that when land bordering a waterbody increases through the gradual and imperceptible accumulation of land ("accretion") or by the gradual and imperceptible withdrawal of water ("reliction"), the new land belongs to the owner of the upland to which it attaches.[203] However, where land increases through a sudden change of the banks of the waterbody, such as by hurricane or earthquake ("avulsion"), the state retains the uncovered land as sovereign lands.[204]

Common law rules vary from jurisdiction to jurisdiction as to whether public works drainage and rechanneling projects are treated as accretion or avulsion for purposes of determining ownership of the uncovered lands.[205] *In Martin v. Busch*,[206] the Florida Supreme Court held that when drainage operations of the state had caused the waters of Lake Okeechobee to recede, owing to the lowering of the level of the lake, lands between the original and the new high water marks "were sovereignty lands when covered by the waters of the navigable lake, [and] . . . remained sovereignty lands when the water receded."[207] A number of Florida cases and commentators have supported and followed *Martin* for the principle that artificial drainage does not alter boundary lines or divest the state of previously sovereign lands.[208]

The applicability of the *Martin* rule to a coastal waters case was called into question by the Florida Supreme Court in *Board of Trustees of the Internal Improvement Trust Fund v. Sand Key Assoc.*[209] *In Sand Key*, the plaintiff corporation brought an action to quiet title to lands that had gradually and imperceptibly accumulated over ten years on its beachfront property. The accretion was the undisputed result of a jetty constructed by the government and the Trustees of the Internal Improvement Trust Fund consequently claimed title to the beachfront in accordance with state law.[210] Section 161.051, *Florida Statutes*, provides that additions or accretions to the upland caused by coastal public works "shall remain the property of the state."[211] The Florida Supreme Court held that section 161.051 was only applicable to accretions to property owners who had participated in the improvements which caused the

accretions. The court held that because Sand Key Associates had been uninvolved in construction of the jetty that had effected the expansion of its beachfront, it retained title to the accreted land.[212]

In so holding, the court also rejected the Trustees' additional argument that *Martin* supported the contention that upland owners have no right to artificially caused accretion.[21]*3 The Sand Key* decision did not purport to overrule *Martin*, but held that the Trustees' reliance on it was "misplaced."[21]*4 The Sand Key* court noted that the *Martin* decision's sole issue was a boundary dispute and that "the portion of the opinion relied on by the Trustees relates to a general statement concerning water rights rather than a holding in the case."[215] The court refused to question the accuracy of the *Martin* case's recitation of "general water law principles," but distinguished the case factually.[216] The court observed that the reclamation by drainage operation in *Martin* was "not reliction by 'imperceptible degrees'" and that a case cited in *Martin* "explains the distinction between upland property that disappears suddenly and property that disappears slowly and gradually and then reappears."[217]

The *Sand Key* court distinguished between the gradual accumu lation of beach sands over a ten-year period as a consequence of a jetty construction (an accretion) and the more abrupt uncovering of inland lands as a consequence of drainage operations, which the court implicitly suggested is legally a case of avulsion. The case thus reads *Martin* as creating a distinction not based on whether causation is natural or artificial, but on whether the land gradually accumulated or abruptly emerged from submerged property. Under this reading, *Sand Key* leaves untouched the principle that inland drain age operations do not divest the state of sovereign land.[218]

One commentator has suggested that, beyond a plain reading of the *Sand Key* case, general equity principles suggest that the logic of the case in the context of coastal projects doesn't translate to the inland context:

> The cases construing section 161.051 address accretions resulting from coastal construction, and these holdings may not apply to artificial reliction of navigable inland waters. In the case of coastal property, the riparian owner is subject to loss by erosion. The common law balanced this vulnerability by granting the owner rights to accretions. These equitable considerations do not exist in the case of artificial relictions. If the state artificially raises water levels above natural levels, it may be liable for the taking of a flowage easement. If water levels are artificially lowered, it would be inequitable for the riparian owner to acquire sovereign land. In both cases, the public would lose.[219]

2. The Marketable Record

Title Act

The Marketable Record Title Act,[220] passed in 1963, provides that any person whose chain of title extends from any title transaction recorded over thirty years has a marketable record title free and clear of all claims except for certain claims specified in the statute. Section 712.04 of the act indicates that all governmental rights depending on any act or event prior to the date of a root of title were extinguished excepting rights in favor of the state reserved in deeds by which Florida parted with title.

In l981, the Florida Fifth District Court of Appeal held that the Marketable Record Title Act extinguished any claim of the state to lands originally below the high water mark of a lake which had been reclaimed by artificial means.[221]

In the 1987 decision of *Coastal Petroleum Co. v. American Cyanamid Co.*,[222] the Florida Supreme Court had an opportunity to directly consider the applicability of the Marketable Record Title Act to navigable waters included within tracts of swamp and overflowed lands conveyed to private owners. The court concluded, contrary to *Contemporary Land Sales*, that in fact the legislature had not intended to extinguish state claims to navigable waters by the Marketable Record Title Act:

> We are persuaded that had the legislature intended to revoke the public trust doctrine by making MRTA applicable to sovereignty lands, it would have, by special reference to sovereignty lands, given some indication that it recognized the epochal nature of such revocation. We see nothing in the act itself or the legislature [sic] history presented to us suggesting that the legislature intended to casually dispose of irreplaceable public assets.[223]

Although *Coastal Petroleum* did not on its facts concern drained sovereign land, the holding would appear to be equally applicable to sovereign lands formerly beneath navigable waters which "continued to be sovereignty lands after they were exposed."[224]

3. Issues Unique to Lakes

The foregoing authorities for retention of previously reclaimed lands in the state applies to lands formerly beneath navigable lakes as well as navigable rivers. In *Martin v. Busch*,[225] the Florida Supreme Court held:

> navigable waters include lakes, rivers, bays, or harbors, and all waters capable of practical navigation for useful [sic] purposes, whether affected by tides or not, and whether the water is navigable or not in all its parts towards the outside lines or elsewhere, or whether the waters are navigable during the entire year or not. [226]

The court also ruled that the state holds title to the beds of navi gable lakes up to the ordinary high water mark, "however shallow the water may be at the outside lines or elsewhere if the water is in fact a part of the particular lake that is navigable for useful pur poses."[227] With lakes, however, the problem is more complicated. Following the acquisition of Florida by the United States, surveys were commissioned to identify new lakes and confirm their navigability status by recording a meander line along their perimeters.[228] Probably due to the uncomfortable and often hazardous conditions plaguing the surveyors, only 190 out of an estimated 30,000 lakes were actually meandered.[229] The absence of a meander line complicates, but does not preclude, a judicial determination of naviga bility.[230]

In *Odom v. Deltona Corp.* ,[231] the Florida Supreme Court held that "meandering is evidence of navigability which creates a rebuttable presumption thereof," and that "[t]he logical converse of this proposition . . . is that non-meandered lakes and ponds are rebuttably presumed non-navigable."[232] Developing historical evidence regarding navigability for nonmeandered lakes would undoubtedly present a challenge of historical scholarship, but would not be impossible.[233]

Accordingly, to the extent Everglades restoration involves lands in the vicinity of navigable waters whose boundaries have been altered by drainage or channeling, it is possible that a considerable portion of lands that have been privately utilized for years, remains sovereignty land owned by the state, for which no taking claim could arise.[234] In some instances, the precise boundaries of those lands may be difficult to ascertain, as no official high water marks were established until after drainage or rechanneling operations.[235] It might well be worth the effort to delineate them, and to adjust compensation for overflowed land to reflect the government's ownership interest and rights with respect to those portions.[236]

B. Does "Just Compensation" Include the Value Added by Government Reclamation Activity?

Generally, when government acquires private property through eminent domain, it is required to pay "fair market value" for the property.[237] Fair market value is the amount of money which a willing buyer would pay in cash to a willing seller.[238] The Supreme Court has,

however, "refused to make a fetish even of market value, since that may not be the best measure of value in some cases."[239] "The constitutional requirement of just compensation derives as much content from the basic equitable principles of fairness . . . as it does from technical concepts of property law."[240]

One longstanding qualification to the fair market value measure is the equitable doctrine that a condemnor is not obliged to compensate a property owner for an enhancement in the value of property which the condemnor created.[241] This principle has been held to exclude in the calculation of fair market value the value of public works projects, constructed on the condemned property, solely at government expense. In *Washington Metropolitan Area Transit Authority v. One Parcel of Land* ,[242] (WMATA) the condemnor transit authority had obtained a right of entry onto certain property to facilitate its construction of a transit station on an adjacent piece of property which it had purchased. In the course of construction, the Authority brought fill onto the property and constructed a culvert, at a total estimated value of $320,000. The Authority then sought to condemn the property, and the owner claimed compensation for the value of the fill and culvert. The Authority countered that such an award would be unjust enrichment:

> WMATA objects to paying twice for the same improvements, the first time when it erected an improvement and the second upon condemning the property in its improved state . . . [I]t would not be fair for the public to pay compensation for improvements erected by the taking authority and then to give the owner of the land a windfall by paying him for improvements erected by another.[243]

The district court had awarded compensation for the improvements, but the Fourth Circuit agreed with WMATA's arguments and reversed:

> there are certain guideposts for courts in determining questions of valuation . . . The first is that owners should be awarded only just compensation for what has actually been taken. This means that they should not be given a windfall for value added to the property.
>
> When we apply that principle to the case at hand, the district court's decision to value the land after and including the improvements made to the land at WMATA's expense was improper.[244]

The foregoing cases are distinguishable from the general rule that enhanced value from public works such as roads, public transport, sidewalks, or a post office in the vicinity of property will be considered in determining fair market value.[245] In those instances, the public works

which were properly included in fair market value determinations were adjacent to, but not on, the condemned property, and benefited the public generally rather than the condemned property specially. The public would continue to enjoy the benefits of the improvements after condemnation, and therefore, it was not unjust that the public pay the condemnee the value in which all property in the vicinity share. The property owner has not received any greater "windfall" than all property owners benefited by public works financed by tax revenues. By contrast, where property has already received a windfall through publicly constructed improvements specially located on the property which does not generally benefit the public at large, awarding compensation to the property owner upon condemnation in the value of the improvements would double the windfall.

The situation of property owners enjoying the benefits of land reclamation solely at government expense is directly analogous to the principal *WMATA* and *Bibb* holdings, if not more compelling a case for limiting compensation.[246] The owners of reclaimed property initially enjoyed a windfall through the construction of vast public works which, primarily if not exclusively, benefited them, rather than the public at large.[247] It is arguable that in fact the public at large has "paid" for the public works twice—once in the cost of con struction and operation, and again in the environmental, recreational, and commercial costs of drainage and reclamation which have more recently come to light.[248] Requiring compensation for those "improvements" when government condemns the property to remedy the consequent harms of the project would make government pay yet a third time. As in *WMATA*, the property owners should not enjoy a triple windfall.

VI. CONCLUSION

Efforts to preserve and restore wetlands through reversionary engineering present novel challenges not simply to engineers and environmental scientists, but also to attorneys and the courts. There is little case law addressing the constitutional implications of restoration of private property to a pre-engineered, less artificial state. The categorical physical takings rule may appear to be facially applicable when one's analysis is limited to a short-term time perspective. However, it becomes far less compelling when one considers restoration as a withdrawal of government intervention in natural conditions rather than a new intervention.

A search of background principles of common law reveals surprisingly little support for the contention that property owners have a protected property interest in their artificially altered land when the alteration was predominantly at government expense. Even where governments decide to restore wetlands through acquisition and eminent domain, they should not ignore the scope of the property owner's entitlement to just compensation. The property owner may not be entitled to compensation to the extent that value has been created by government public works specially enhancing their property. A foray into the intricacies of Florida water law suggests that they in fact do not even own reclaimed land formerly beneath navigable inland waterbodies.

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[1] *See* Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 441 (1982). Return to text.

[2] *See* Lucas v. South Carolina Coastal Council, 112 S. Ct. 2886, 2893 (1992). Return to text.

[3] *Id.* Return to text.

[4] *Id.* at 2893. Return to text.

[5] *See generally* Steven M. Davis & John C. Ogden, Everglades: The Ecosystem and Its Restoration 769-96 (1994); Norman Boucher, *Smart as Gods*, Wilderness, Winter 1991, at 10; James Webb, *Managing Nature in the Everglades*, EPA Journal, Nov.-Dec. 1990, at 48, 50. Return to text.

[6] The premier project of reversionary engineering is the Kissimmee River restoration project. This project has been characterized as the largest river restoration effort in the United States, if not the world. The Kissimmee River was once a wide, meandering, 103-mile-long river feeding into Lake Okeechobee, and constituting the headwaters of the Everglades ecosystem. A federally funded Army Corps of Engineers (Corps) flood control project authorized in 1948 transformed the river into a narrow, 56-mile-long flood control ditch. The project resulted in a loss of between 35,000 and 45,000 acres of wetlands, a 90% decline in wading birds along the river, and more intensive agricultural uses. On April 23, 1994, ceremonial work began on the federally authorized $372 million restoration project aimed at removing 22 miles of channel, restoring 43 miles of river, and reclaiming 26,500 acres of wetlands. Craig Quintana, *Work to Begin on Restoring Kissimmee Ceremony Today to Kick off Nation's Biggest*

River Project , ORLANDO SENTINEL, April 23, 1994, at D1; Larry Lipman & Kirk Brown, *Kissimmee River to Meander Again* , PALM BEACH POST, Oct. 9, 1992, at A1; Brian Culhane, *The Kissimmee Connection* , WILDERNESS, Winter 1991, at 17.

More wide-ranging engineering scenarios for the hydrologic and ecologic restoration of the South Florida ecosystem were recently suggested in a report to the Corps by the Science Sub-Group of the South Florida Management and Coordination Working Group, and are currently under consideration by the Corps. SCIENCE SUB- GROUP, SOUTH FLORIDA MANAGEMENT AND COORDINATION WORKING GROUP, FEDERAL OBJECTIVES FOR THE SOUTH FLORIDA RESTORATION (1993). Additionally, the U.S. Man and the Biosphere Program's ongoing study of the Everglades International Biosphere Reserve and the South Florida ecosystem is explor ing various scenarios for large-scale ecologic restoration of the ecosystem. U.S. MAN AND THE BIOSPHERE PROGRAM, ISLE AU HAUT PRINCIPLES (1994). *See also* DAVIS & OGDEN, *supra* note 5, at 792, 794 (recommending, *inter alia* , that "the reduction in ecosystem size and compartmentalization of the remaining system are trends that must be reversed in any Everglades restoration initiative," and that it is necessary to "integrate elements into rainfall-based water delivery plans that will mimic extended periods of flooding as they would have occurred in the remnant Everglades marshes under predrainage conditions."). Return to text.

[7] *See generally* Lucas v. South Carolina Coastal Council, 112 S. Ct. 2886 (1992). Return to text.

[8] *Id.* at 2893. Return to text.

[9] The $372 million Kissimmee River restoration project contemplates the acquisition by the South Florida Water Management District (SFWMD) of over 80,000 acres of land, of which 48,351 had been acquired as of July 1994. Interview with Stanley J. Niego, Attorney SFWMD.

On March 9, 1994, the Everglades National Park Protection and Expansion Act of 1989 was amended to authorize a 25% contribution of federal funds for acquisition of "those lands or interests therein adjacent to, or affecting the restoration of natural water flows to, the park or Florida Bay which are located east of the park and known as the Frog Pond, Rocky Glades Agricultural Area, and the Eight-and-One-Half-Square-Mile Area." Everglades National Park Protection and Expansion Act, § 104, 108 Stat. 98 (1994). Return to text.

[10] In 1990, The Wilderness Society commissioned an economic analysis of public subsidies and externalities affecting water use in South Florida. Included within the scope of the study is an analysis of the capital costs of the Central and South Florida Flood Control Project (CSFFCP), the project which accounted for the overwhelming majority of land reclamation and

wetland destruction in South Florida. The CSFFCP, authorized in 1948, involved over 1,300 miles of canals and levees, a dozen high volume pump stations, over 60 spillways, and several hundred secondary structures. It was intended to allow more profitable use of 1.57 million acres of existing crop and pasture land, and to create 726,000 acres of new agricultural land. The Corps financed most of the work on the CSFFCP, with the State of Florida contributing from general revenues, and the water management district, then called the Central and South Florida Flood Control District, contributing from its own ad valorem revenues. The total acquisition and construction costs of the project were $529 million, or $1.47 billion in 1990 dollars. Of that total, The Wilderness Society study determined that the federal government paid $1.21 billion, the State of Florida $114.3 million, and South Florida property owners $151.6 million through ad valorem water district taxes. Based on their 1990 share of the tax base, the study in turn determined that $149.1 million of the flood control district contribution was raised from urban interests, and the remaining $2.5 million from agricultural interests (although the report cautioned that the actual agricultural proportion may have been higher, as the agriculture share of the property tax base was higher in the 1950-73 period). In sum, it appears that less than half of one percent of the capital costs of the CSFFCP was paid by the agricultural property owners who benefited most directly from the project. *An Analysis of Public Subsidies and Externalities Affecting Water Use in South Florida*, submitted to The Wilderness Society at 14-16 (Florida Atlantic University/Florida International University Joint Center for Environmental and Urban Problems, Ft. Lauderdale, Fla.), December 1990, at 14-16. As one commentator has observed:

> It is not too much to say that the cost sharing for the $529 million FCD project has favored agricultural interests—and especially the corporate farming enterprises of the Everglades Agricultural Area—in an outrageously unfair way. This seems especially true in light of the other government subsidies available to these enterprises.

The Florida Experience: Land and Water Policy in a Growth State, (Resources for the Future, Inc. Washington, D.C.) 1974 at 96 [hereinafter *The Florida Experience*]. Return to text.

[11] Lucas v. South Carolina Coastal Council, 112 S. Ct. 2886, 2901 (1992). Return to text.

[12] *Id.* Return to text.

[13] U.S. CONST. amend. V. Return to text.

[14] 260 U.S. 393 (1922). Return to text.

[15] *See generally* Frank J. Michelman, *Property, Utility, and Fairness: Comments on the Ethical Foundations of "Just Compensation" Law* , 80 HARV. L. REV. 1165, 1184 (1967); Loretto v. Teleprompter Manhattan CATV Corp, 458 U.S. 419, 427-28 n.5 (1982). Return to text.

[16] 260 U.S. at 415. Return to text.

[17] Witness the hundreds of articles exploring the recent Supreme Court decisions of Lucas v. South Carolina Coastal Council, 112 S. Ct. 2886 (1992), and Nollan v. California Coastal Comm'n, 483 U.S. 825 (1987). A particularly interesting collection of analyses is pro vided in papers presented in a 1992 conference entitled *Windfalls and Wipeouts: Environmental Regulation, Property and the "Takings" Clause after* Lucas v. South Carolina Coastal Council, 17 VT. L. REV. 695 (1993). *See also* AFTER *L UCAS* : LAND USE REGULATION AND THE TAKING OF PROPERTY WITHOUT COMPENSATION (David L. Callies ed., 1993). Return to text.

[18] 438 U.S. 104 (1978). Return to text.

[19] *Id.* at 124. Return to text.

[20] *Id.* "A 'taking' may more readily be found when the interference with property can be characterized as a physical invasion by government, see, e.g., *United States v. Causby* , 328 U.S. 256 (1946), than when interference arises from some public program adjusting the benefits and burdens of economic life to promote the common good." *Id.* Return to text.

[21] 328 U.S. 256 (1946). Return to text.

[22] *Id.* at 266-68. Return to text.

[23] 458 U.S. 419 (1982). Return to text.

[24] *Id.* at 421. Return to text.

[25] *Id.* at 438. Return to text.

[26] *Id.* at 425. Return to text.

[27] *Id.* at 440. Return to text.

[28] *Id.* at 442 (Blackmun, J., dissenting). Return to text.

[29] Lucas v. South Carolina Coastal Council, 112 S. Ct. 2886, 2893 (1992). Return to text.

[30] Board of Regents of State Colleges v. Roth, 408 U.S. 564, 577 (1972), *quoted in* 112 S. Ct. at 2901. Return to text.

[31] Dolan v. City of Tigard, 114 S. Ct. 2309, 2320 (1994) (finding a requirement of dedication, by deeded easement, of public greenway and pedestrian/bike path, on private property was a taking because it lacked the required relationship). Return to text.

[32] Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419, 441 (1982). Return to text.

[33] 260 U.S. 22 (1922). Return to text.

[34] 260 U.S. 393 (1922). *Jackman* is overlooked in the *Loretto* Court's review of physical takings law, and in fact disproves that Court's assertion that "[w]hen faced with a constitutional challenge to a permanent physical occupation of real property, this Court has invariably found a taking." 458 U.S. at 427. Return to text.

[35] *Jackman* , 260 U.S. at 31.

> The Fourteenth Amendment, itself a historical product, did not destroy history for the States and substitute mechanical compartments of law all exactly alike . . . Such words as 'right' are a constant solicitation to fallacy. We say a man has a right to the land that he has bought and that to subject a strip six inches or a foot wide to liability to use for a party wall therefore takes his right to that extent. It might be so and we might be driven to the economic and social considerations that we have mentioned if the law were an innovation, now heard of for the first

> time. But if, from what we may call time immemorial, it has been the understanding that the burden exists, the land owner does not have the right to that part of his land except as so qualified and the statue that embodies that understanding does not need to invoke the police power.

Id. (citations omitted). Return to text.

[36] 80 U.S. 166 (1871). Return to text.

[37] *Id.* at 167-68. Return to text.

[38] *Id.* at 167. Return to text.

[39] *Id.* at 171. Return to text.

[40] *Id.* at 181. Return to text.

[41] 188 U.S. 445 (1903). Return to text.

[42] *Id.* at 450. Return to text.

[43] *Id.* Return to text.

[44] *Id.* at 470. It should be noted that the plantation in *Lynah* had been "reclaimed by drainage, and had been in actual continued use for seventy years and upwards as a rice plantation." *Id.* at 448. This is the only reference to that fact in the case. There is no discussion of who incurred the expense of the reclamation, nor did the government seek to assert any defense to the taking claim based on government investment in the original reclamation project. Return to text.

[45] 243 U.S. 316 (1917). Return to text.

[46] *Id.* at 318. Return to text.

[47] *Id.* Return to text.

[48] *Id.* at 328. Return to text.

[49] 331 U.S. 745 (1946). Return to text.

[50] *Id.* at 751. Return to text.

[51] *See* Sanguinetti v. United States, 264 U.S. 146, 150 (1924). Return to text.

[52] 264 U.S. 146 (1924). Return to text.

[53] *Id.* Return to text.

[54] *Id.* Return to text.

[55] *Id.* at 147. Return to text.

[56] *Id.* at 149. Return to text.

[57] *Id.* at 150. *See also* Coleman v. United States, 181 F. 599 (N.D. Ala. 1910):

> Injury to both timber and crops, from overflows, was occurring frequently, if not annually, before any dam was built . . . The effect of the dam was merely to increase the likelihood and extent of similar overflows and the damage resulting therefrom, and thereby impair the value of plaintiff's property for cultivation to a greater extent.

Id . at 603-04. Return to text.

[58] 45 F.2d 34 (5th Cir. 1930), *rev'd on other grounds* , 290 U.S. 13 (1933). Return to text.

[59] *Id.* at 38. Return to text.

[60] 427 F.2d 767 (Ct. Cl. 1970). Return to text.

[61] *Id.* at 769. Return to text.

[62] 28 U.S.C. § 1491(a)(1) (1988).

63. 22 Cl. Ct. 467 (1991). Return to text.

[64] *Id.* at 473, 485. Return to text.

[65] 22 Cl. Ct. 85 (1990). Return to text.

[66] *Id.* at 102. "To attach liabilities to the Bureau [of Reclamation] . . . every time the Bureau made releases in response to insufficient storage and groundwater invaded the root zone of his crops would make a government agency responsible for whatever climactic condi tions nature chooses to deliver." *Id.* at 106-07; *see also* Bartz v. United States, 633 F.2d 571, 577 (Cl. Ct. 1989); Accardi v. United States, 599 F.2d 423, 429 (Ct. Cl. 1979); Ark-MoFarms, Inc. v. United States, 530 F.2d 1384, 1386 (Ct. Cl. 1979); Hartwig v. United States, 485 F.2d 615, 620-21 (Ct. Cl. 1973); Columbia Basin Orchard v. United States, 132 F. Supp. 707, 709 (Ct. Cl. 1955); Creech v. United States, 60 F. Supp. 885, 896 (Ct. Cl. 1944), *cert. denied*, 325 U.S. 870 (1945) (concerning flooding of islands in Lake Okeechobee by wind tides as an alleged result of construction of a levee on perimeter of lake). *Cf.* Turner v. United States, 23 Cl. Ct. 447, 455 (1991) (flooding and sand deposition of downstream agricultural tracts developing after river channelization was a compensable taking, where there was "no suggestion that the damage would have occurred without the channelization.").

Other federal court decisions provide further support for the *Leeth* and *Laughlin* decisions. *See* Allain-Lebreton Company v. Dept. of the Army, 670 F.2d 43, 44-45 (5th Cir. 1982) (holding there was no taking where government intentionally failed to locate hurricane protection level on portion of plaintiff's property, in order to preserve wetland environment); Miller v. United States, 583 F.2d 857, 864 (6th Cir. 1978), *dism'd on remand*, 480 F. Supp. 612 (E.D. Mich 1979) (noting that even if government structures aggravated or prolonged flooding the plaintiffs could not show "direct appropriation" because natural factors had historically caused fluctuation in the levels of the lake at issue). Return to text.

[67] *See* Arundel Corp. v. Griffin, 103 So. 422 (Fla. 1925); Poe v. State Road Dept., 127 So. 2d 898 (Fla. 1st DCA 1961). Return to text.

[68] 103 So. 422 (Fla. 1925). Return to text.

[69] *Id.* at 424. Return to text.

[70] *Id.* Return to text.

[71] 127 So. 2d 898 (Fla. 1st DCA 1961). Return to text.

[72] *Id.* at 898-99. Return to text.

[73] *Id.* at 902. *See also* Dudley v. Orange County, 137 So. 2d 859 (Fla. 2d DCA 1962)(no compensation required where dams constructed during a natural disaster increased the degree of flooding). Return to text.

[74] *See* Pumpelly v. Green Bay Co., 80 U.S. 166 (1871). Return to text.

[75] *See* Sanguinetti v. United States, 264 U.S. 146 (1924); Arundel Corp. v. Griffin, 103 So. 422 (Fla. 1925); Poe v. State Road Dept., 127 So. 2d at 898 (Fla. 1st DCA 1961); Dudley v. Orange County, 137 So. 2d at 859 (Fla. 2d DCA 1962). Return to text.

[76] *See Arundel Corp.* , 103 So. at 423. Return to text.

[77] *See id.* at 424. Return to text.

[78] In one unsuccessful flood takings case, however, the Court of Claims concluded that "the Government's foreknowledge will not convert an otherwise insufficient injury into a taking." National By-Products v. United States, 405 F.2d 1256, 1275 (Ct. Cl. 1969). Return to text.

[79] *See infra* part IV. Return to text.

[80] 196 N.W. 666 (Minn. 1924). Return to text.

[81] *Id.* Return to text.

[82] *Id.* Return to text.

[83] *Id.* Return to text.

[84] *Id.* at 667. Return to text.

[85] *Id.* at 667-68. Return to text.

[86] *Id.* at 668.

> As nature left plaintiff's land, and for all the empire building work that he may have done in converting it from mere land into a farm, there is no right in him to have the ravine dammed (as it is by the ditch embankment), and the natural flow of water onto and across his land intercepted.

Id. Return to text.

[87] *Id.* at 688. Return to text.

[88] *Id.* at 668-69. *Accord* Fischer v. Town of Albin, 104 N.W.2d 32 (Minn. 1960). *Cf.* Kaiser Aetna v. United States, 444 U.S. 164, 179-80 (1979) (finding that imposition of public access constituted a taking). *Kaiser* is further support for the proposition that private investment in ecology-altering projects can give rise to protected property rights. In *Kaiser*, property owners, with the consent of the government, dredged at their own expense a previously non-navigable shallow lagoon. The United States contended that the consequent navigable marina was subject to a navigational servitude, and that the property owners did not have the right to deny the public a right of access. *Id.* at 179-80.

As noted in *supra* note 10, the argument that agricultural property owners contributed significantly to the capital costs of the major reclamation and flood control project in South Florida appears to be a weak one. Moreover, it is important to distinguish between payment of the capital costs of a reclamation or flood control project, through flood control district special assessments or otherwise, which under the *Lupkes* case could give rise to a protected property interest in the continued existence of the project, and payment, through assessments or other taxes, of periodic maintenance costs of such projects. The latter is presumably recouped in ongoing benefits, and does not in the same sense as the *Lupkes* case's reasoning give rise to any expectation of permanency. Return to text.

[89] 308 U.S. 256 (1939). Return to text.

[90] Ch. 569, §§ 1-12, 14, 45 Stat. 534 (1928) (current version at 33 U.S.C. §§ 702a-m (1988)). Return to text.

[91] *Sponenbarger*, 308 U.S. at 261. Return to text.

[92] *Id.* at 262-63. Return to text.

[93] *Id.* at 257. Return to text.

[94] *Id.* at 265. Return to text.

[95] *Id.* at 265 (footnote omitted). Return to text.

[96] 91 Ct. Cl. 196 (1940). Return to text.

[97] *Id.* at 198. Return to text.

[98] *Id* . Return to text.

[99] *Id.* at 199. Return to text.

[100] *Id.* at 198. Return to text.

[101] *Id.* at 199. Return to text.

[102] *Id.* at 199-200. Return to text.

[103] *Id.* at 200. Return to text.

[104] *Id.*

> As long as the old levee was being maintained, . . . the Kirch Tract was fairly worth $100 an acre, the value prevailing for alluvial lands in the vicinity. As soon as it became apparent that . . . the set-back levee would in effect be substituted for the old levee, the Kirch Tract became valueless both for loan purposes and for sale.

Id. at 201. Return to text.

[105] *Id.* (relying on United States v. Sponenbarger, 308 U.S. 256 (1939)). Return to text.

[106] 293 N.W. 140 (Minn. 1940). Return to text.

[107] *Id.* Return to text.

[108] *Id.* Return to text.

[109] *Id.* at 141-42. Return to text.

[110] *Id.* at 142. Return to text.

[111] *Id.* (paraphrasing Commissioner's findings). Return to text.

[112] *Id.* Return to text.

[113] *Id.* at 143. Return to text.

[114] *Id.* "No riparian owner has a right to complain of improvements by the public whereby the water is maintained in the condition which nature has given it . . . The law justified the maintenance of the lake at its natural and usual height and level." *Id.* (quoting Stenberg v. County of Blue Earth, 127 N.W. 496, 497 (Minn. 1910)). Return to text.

[115] *Id.* at 144. Return to text.

[116] *Id.* Return to text.

[117] 18 P.2d 53 (Wash. 1933). Return to text.

[118] *Id.* at 55. Return to text.

[119] *Id.* at 54. Return to text.

[120] *Id.* Return to text.

[121] *Id.* Return to text.

[122] *Id.* at 55. Return to text.

[123] *Id.* (quoting HENRY P. FARNHAM, WATERS & WATER RIGHTS § 827, at 2422 (date omitted)).

An annotation of the *City of Everett* decision reviews a collection of 19th and early 20th century cases on the right of riparian landowners to continuance of artificial conditions established above or below their land. P.H. Vartanian, Annotation, *Right of Riparian Landowners to Continuance of Artificial Conditions Established Above or Below Their Land*, 88 A.L.R. 130 (1934). Decisions in California, Connecticut, Massachusetts, Missouri, North Carolina, Ohio, and Washington

supported the *City of Everett* court's conclusion that there is no reciprocal right to have an artificial condition maintained. Michigan and Minnesota had conflicting decisions, with the later decisions supporting the *City of Everett* analysis. Courts in Delaware, Iowa, Maine, New Hampshire, New York, South Carolina and Wisconsin have recognized such a reciprocal right. The decisions in the latter states turned either on a theory of prescriptive right by adverse use (e.g., Smith v. Youmans, 70 N.W. 1115 (Wis. 1897)), or on a theory of equitable estoppel (e.g., Shephardson v. Perkins, 58 N.H. 354 (1897)). The annotation points out that the prescriptive right theory "is severely criticized by some text-writers as having no legal foundation, on the ground that in such cases the element of adverse use, so essential to acquisition of rights by prescription or presumptive grant, is lacking." 88 A.L.R. at 132, (citing 3 FARNHAM, *supra*). This theory would seem particularly inappropriate in the Everglades context, where the drainage and reclamation efforts could hardly be characterized as "adverse" to the agricultural landowners. With respect to the estoppel theory, while it may be applicable as between rights of private landowners in the cases collected in the A.L.R. annotation, as discussed *infra* , part V, it is much less likely to be applied when the *government* seeks to remove an artificial condition. Return to text.

[124] 500 F. Supp. 1108 (E.D. La. 1980), *rev'd on other grounds* , 670 F.2d 564 (5th Cir. 1982). Return to text.

[125] Pub. L. No. 92-240, 86 Stat. 47 (1972) (codified as amended at 33 U.S.C. § 1251 (1988)). Return to text.

[126] 500 F. Supp. at 1113. Return to text.

[127] *Id.* Return to text.

[128] *Id.* Return to text.

[129] *Id.* at 1114. Return to text.

[130] *Id.* at 1116. Return to text.

[131] *Id.* at 1116-17 *citing* Flood Control Act, Pub. L. No. 93-251, § 73, 88 Stat. 32 (1974) (current version at 33 U.S.C. § 701b-11 (1988); Rivers and Harbors Act of 1849, ch. 425, § 11, 30 Stat. 1151 (1899) (current version at 33 U.S.C. § 33 U.S.C. § 404 (1988)). Return to text.

[132] *Id.* at 1117. The court's decision was despite the fact that the legislation

postdated the project's origination. "We cannot . . . restrict our review of the agency's decision to the terms of the Project's costs and benefits at its inception . . . without taking into account the Congressional policies expressed in subsequent environmental legislation." *Id.* Return to text.

[133] *Id.* at 1118-19. Return to text.

[134] *Id.* at 1119. Return to text.

[135] *Id.* at 1118 (relying on United States v. Sponenbarger, 308 U.S. 256 (1939); United States v. 2,606.84 Acres of Land, 432 F.2d 1286 (5th Cir. 1970). Return to text.

[136] Creppel v. U.S. Army Corps of Engineers, 500 F. Supp. 1108, 1119 (E.D. La. 1980). "[T]he [Corps'] order merely reflects a decision . . . to modify the Project so as to bring it into conformity with the existing environmental regulations. This action did not result in the abandonment of all flood control benefits but merely resulted in the elimination of the land reclamation aspects of the Project." *Id.* Return to text.

[137] *Id.*

> It is well established that where the United States exercises its superior right, pursuant to its power under the commerce clause, which results in the frustration of an individual property owner's business opportunity or enterprise, such action does not constitute a taking of property within the meaning of the Fifth Amend ment.

Id. *But cf.* Creppel v. United States, 30 Fed. Cl. 323 (1994) (raising claim for compensation of a taking under the Fifth Amendment pursuant to the Tucker Act where court did not reach substance of the claim but rather found it to be barred by the statute of limitations). Return to text.

[138] Creppel v. U.S. Army Corps of Engineers, 670 F.2d 564, 572 (5th Cir. 1982). Return to text.

[139] In subsequent proceedings, the district court granted summary judgment sustaining the EPA's decision to require modification of the project, and held that a proceeding under the Tucker Act in the Federal Claims Court was the plaintiffs' sole source of relief for a takings claim. Creppel v. U.S. Army Corps of Engineers, 19 Envtl. L. Rep. (Envtl. L. Inst.) 20,134 (E.D. La. June 30, 1988). *See* *supra* note 62 and accompanying text. Return to text.

[140] 798 F. Supp. 678 (S.D. Fla. 1992), *dismissed* , 855 F. Supp. 351 (1994). Return to text.

[141] *Id.* at 683. Return to text.

[142] *Id.* at 684. The plaintiffs had earlier raised similar claims in a state action. That action was dismissed on the pleadings for failure to allege that the flooding experienced was sufficient to constitute "substantial ouster," an infirmity which the plaintiffs corrected in their federal pleading. Bensch v. Metropolitan Dade County, 541 So. 2d 1329, 1331 (Fla. 3d DCA 1989); *see Bensch* , 798 F. Supp. at 684. Return to text.

[143] 798 F. Supp. at 684 (quoting from amended complaint). Return to text.

[144] *Id.* at 683 ("A reading of the complaint shows that the plaintiffs are actually aggrieved as a result of a withdrawal of and/or failure to provide flood protection benefits, which, if true, is a discretionary government decision, and not a taking of private property.") Finding the standard of proof had been met, the court rejected SFWMD's motion to dismiss the takings claim with the stipulation that plaintiffs had 30 days to amend the complaint to correct any deficiencies mentioned. *Id.* at 684. Return to text.

[145] *Id.* Return to text.

[146] Plaintiffs' Reply to SFWMD's Motion to Dismiss at 3, Bensch v. Metropolitan Dade County, 798 F. Supp. 678 (S.D. Fla. 1992) (No. 90-252-CIV-HOEVELER), *dismissed* , 855 F. Supp. 351 (1994). Return to text.

[147] *Bensch* , 798 F. Supp. at 683. Return to text.

[148] *Id.* Return to text.

[149] 853 F. Supp. 404 (S.D. Fla. 1993). Return to text.

[150] *Id.* at 405-06. On the plaintiffs' motion for a temporary restraining order, the court found a lack of probability of success on the merits of the constitutional claim on procedural grounds (exclusive remedy was Tucker Act claim for monetary compensation assertable only in the claims court). *Id.* at 408-10. Return to text.

[151] Order Granting Motion to Dismiss, South Dade Land Corp. v. Sullivan, 853 F. Supp. 404 (S.D. Fla. 1993) (No. 93-2210) (granting the plaintiffs' Notice of Voluntary Dismissal file Apr. 18 1994). Return to text.

[152] 399 So. 2d 1374, *cert. denied* , 454 U.S. 1083 (1982). Return to text.

[153] *Id.* at 1376. Return to text.

[154] *Id.* Return to text.

[155] *Id.* at 1376-77. Return to text.

[156] *Id.* at 1377. Return to text.

[157] Estuary Properties, Inc. v. Askew, 381 So. 2d 1126, 1140 (Fla. 1st DCA 1979). Return to text.

[158] Graham v. Estuary Properties, Inc., 399 So. 2d 1374, 1382, *cert. denied* , 454 U.S. 1083 (1982). Return to text.

[159] *Id.* (citing Just v. Marinette County, 201 N.W.2d 761 (Wis. 1972). Return to text.

[160] 399 So. 2d at 1382 (quoting 201 N.W.2d at 768). Return to text.

[161] 399 So. 2d at 1382 (citing 201 N.W.2d at 761). Return to text.

[162] *See infra* note 170. Return to text.

[163] 399 So. 2d at 1382 (quoting 201 N.W.2d at 768). Return to text.

[164] FRANK E. MALONEY ET AL., WATER LAW AND ADMINISTRATION: THE FLORIDA EXPERIENCE 252-57 (1968). Return to text.

[165] *Id.* at 255-56 (citing 1 SAMUEL C. WEIL, WATER RIGHTS IN THE WESTERN STATES § 57 (3d ed. 1911)). Return to text.

[166] JOSEPH L. SAX, THE CONSTITUTION, PROPERTY RIGHTS AND THE FUTURE OF WATER LAW, at 12-13, 15-19 (Western Water Policy Project Discussion Series No. 2, Natural Resources Law Center Discussion Paper Series, 1990). Return to text.

[167] As the Supreme Court observed in Penn Central Transp. Co. v. New York City, 438 U.S.

104 (1978), factors that have "particular significance" in takings analyses include "the economic impact of the regulation and, particularly, the extent to which the regulation has interfered with distinct investment-backed expectations . . ." *Id.* at 124.

The concept of "reasonable investment-backed expectations" refers to the value of property derived from the purchaser's intended use of the land; *e.g.*, Lucas v. South Carolina Coastal Council, 112 S. Ct. 2886, 2903 (1992); *Penn Central*, 438 U.S. at 105. Return to text.

[168] Kirch v. United States, 91 Ct. Cl. 196, 198 (1940). Return to text.

[169] Lucas v. South Carolina Coastal Council, 112 S. Ct. 2886, 2893 (1992). Return to text.

[170] On the subject of "productive" use of land, while perhaps not wholly consistent with Justice Scalia's 19th century-based view of the concept ("'[For] what is the land but the profits thereof[?]," *Id.* at 2894, *quoting* 1 EDWARD COKE, INSTITUTES ch. 1, §1 (1st Am. ed. 1812); "our prior takings cases evince an abiding concern for the productive use of, and economic investment in, land . . .;" *Id.* at 2895 n.8), it is disputed by few ecologists that from a whole ecosystem point of view reconversion of agricultural land in South Florida to wetlands will *enhance* the long term economically beneficial and productive use of the land. The major economic commodities which are most imperiled by current agricultural uses of the land, and which had been historically enhanced and protected by the Everglades wetlands, are freshwater purity and commercial fisheries in Florida Bay. *See* DAVIS & OGDEN, *supra* note 5, at 779-89; SCIENCE SUB-GROUP, *supra* note 6, at 3-15. Return to text.

[171] *Cf.* Kaiser Aetna v. United States, 444 U.S. 164, 179 (1979) ("[W]hile the consent of individual officials representing the United States cannot 'estop' the United States . . . it can lead to the fruition of a number of expectancies that, if sufficiently important, the Government must condemn and pay for . . ."). Return to text.

[172] *See e.g.,* Flood Control Act of 1954, Pub. L. No. 780, 68 Stat. 1257 (1954) (codified at 33 U.S.C. §§ 701-709b (1988)). This statute authorizes a comprehensive plan for flood control in Central and Southern Florida, "with such modifications thereof as the Congress may hereafter authorize or, as in the discretion of the Chief of Engineers may be advisable . . ." *See also* the Comprehensive Report by the Chief Engineers on Central and Southern Florida for Flood Control and Other Purposes, H. R. DOC. NO. 643, 80th Cong., 2d Sess. 4 (1948), *incorporated in* The Flood Control Act of 1948, Pub. L. No. 80-858, 62 Stat. 1176 (1948) (codified at 33 U.S.C. §§ 701-709b (1988)), providing that "[t]he plan of improvement has also been developed in full recognition of the importance of the Everglades National Park which as been established recently at the southwestern tip of

Florida peninsula." The report also found that:

> Insofar as the Everglades National Park is concerned, the main points for consideration are the maintenance of an adequate level of fresh ground water to prevent saltwater encroachment which would change the environment for wildlife, as well as the vegetation; and the critical need for attaining a reasonably large supply of fresh water so that disastrous fires may be prevented . . .

Id. at 1. The Report of the Chief of Engineers on Water Resources for Central and Southern Florida, H.R. DOC. NO. 369, 90th Cong., 2d Sess. 1-2 (1968), *incorporated in* The Flood Control Act of 1968, Pub. L. No. 90-483, 82 Stat. 731 (1968) (codified at 33 U.S.C. §§ 701-709b (1988)) provides that "preservation of Everglades National Park is a project purpose and that available water should be provided on an equitable basis with other users . . ." In addition, S. REP. NO. 895, 91st Cong., 2d Sess. 20 (1970, on Pub. L. No. 91-282, 84 Stat. 310 (1970), provides:

> While there have been special studies of the ecology of the park, and other studies are continuing, our knowledge of this unique area and its needs will continue to develop . . . the Engineers will review the water resource needs in central and southern Florida by 1980, prior to scheduled completion of the project in 1984. The review will "determine whether further modifications of the project are warranted, and give further assurances of maintaining the essential water supply to insure the protection of the Park's ecosystem."

Id. (quoting S. REP. NO. 528, 91st Cong.). Return to text.

[173] 899 F.2d 799 (9th Cir. 1990). Return to text.

[174] 43 U.S.C. § 373 (1982). Return to text.

[175] 899 F.2d at 807 (reasoning that three principles should be considered when interpreting federal government contracts: (1) the sovereign's contractual arrangements are subject to legislation; (2) government contracts should be construed to avoid foreclosing the exercise of sovereign authority; and (3) interpretation of ambiguous terms can only be made in light of policies underlying the legislation). *See also* Pankey Land & Cattle Co. v. Hardin, 427 F.2d 43 (10th Cir. 1970); Osborne v. United States, 145 F.2d 892, 896 (9th Cir. 1944) (both holding termination of grazing rights on federal lands not a taking); Organized Fishermen of Florida v. Watt, 590 F. Supp. 805, 815-16 (1984) (cancellation of commercial fishing permits in the Everglades National Park not a taking). Return to text.

[176] 899 F.2d at 813. The court rejected the Water District's reliance on a 1984 Supreme Court case, finding the factual situation to be a misapplication. *Id.* (explaining holding

in Ruckelshaus v. Monsanto Co., 467 U.S. 986 (1984) by stating that investment-backed expectations are not a property interest by themselves, but merely constitute a factor in determining whether a regulation goes so far as to constitute a taking). Return to text.

[177] *See* United States v. Hatcher, 922 F.2d 1402, 1409-11 (9th Cir. 1991); Peterson v. United States Dept. of the Interior, 899 F.2d 799, 811 n.17 (9th Cir. 1990); United States v. Angle, 760 F. Supp. 1366, 1377 (E.D. Cal. 1991). Return to text.

[178] 760 F. Supp. 1366 (E.D. Cal. 1991). Return to text.

[179] *Id.* at 1377. Return to text.

[180] 496 U.S. 414, 434 (1990). Return to text.

[181] *Id.* at 422 (noting that the Court has reversed every finding of estoppel against the government that it has ever reviewed); *accord* Feldman v. Commissioner of Internal Revenue, 20 F.3d 1128, 1134 (11th Cir. 1994). *See also* Organized Fisherman of Florida v. Andrus, 488 F. Supp. 1351, 1356 (S.D. Fla. 1980); Buccaneer Point Estates, Inc. v. United States, 12 Envtl. L. Rep. (Envtl. L. Inst.) 20,732 (S.D. Fla. Feb. 25, 1982). Return to text.

[182] *See* Council Bros., Inc. v. City of Tallahassee, 634 So. 2d 264, 266 (Fla. 1st DCA 1994). The *Council* court noted that "equitable estoppel will apply against a governmental entity 'only in rare instances and under exceptional circumstances[,]'" *Id.* (citing North America Co. v. Green, 120 So. 2d 603, 610 (Fla. 1959)), but that "[t]he reasonable expectation of every citizen 'that he will be dealt with fairly by his government' can form the basis for application of equitable estoppel . . ." *Id.* (citing Hollywood Beach Hotel Co. v. City of Hollywood 329 So. 2d 10, 18 (Fla. 1976)). Return to text.

[183] Resolution Trust Corp. v. Town of Highland Beach, 18 F.3d 1536, 1550 (11th Cir. 1994). Return to text.

[184] *See* State Dept. of Revenue v. Anderson, 403 So. 2d 397 (Fla. 1981); Bryant v. Peppe, 238 So. 2d 836 (Fla. 1970). Return to text.

[185] City of Hollywood v. Hollywood Beach Hotel Co., 283 So. 2d 867, 870 (Fla. 4th DCA 1973), *aff'd and rev'd on other grounds*, 329 So. 2d 10 (Fla. 1976); *accord* Metropolitan Dade Co. v. Rosell Construction Corp., 297 So. 2d 46 (Fla. 3d DCA 1974); *see also* Texas Co. v. Town of Miami Springs, 44 So. 2d 808 (Fla. 1950). *But see* Hollywood Beach Hotel Co. v. City of Hollywood,

329 So. 2d 10, 15 (Fla. 1976), in which the court indicated that it did not yet expressly recognize the exception. This principle would appear to be particularly relevant to a reversionary engineering situation. *See* *supra* note 170. Return to text.

[186] Macnamara v. Kissimmee River Valley Sportsman's Assoc., 19 Fla. L. Weekly D2208 (Fla. 2d DCA October 14, 1994), *appeal docketed* , No. 84-267 (Fla. Sup. Ct. Aug. 29, 1994). Return to text.

[187] *Id.* at D2211. Return to text.

[188] *Id.* at D2208. Return to text.

[189] *Id.* at D2208-09. Return to text.

[190] *Id.* Return to text.

[191] *Id.* at D2209-11. Return to text.

[192] *Id.* at D2211. Return to text.

[193] *Id.* Return to text.

[194] *Id.* (citations omitted). Return to text.

[195] *Id.* The district court has denied Macnamara's motions for rehearing, rehearing en banc and certification to the Florida Supreme Court as a question of great public importance. A petition for certiorari has been filed with the Florida Supreme Court. Return to text.

[196] 899 F.2d 799 (9th Cir. 1990); *see* discussion at text *supra* . Return to text.

[197] *See* *supra* note 9. Return to text.

[198] Coastal Petroleum Co. v. American Cyanamid Co., 492 So. 2d 339, 342 (Fla. 1986), *cert. denied* , 479 U.S. 1065 (1987). Return to text.

[199] Donna R. Christie, *Florida* , *in* 6 WATERS AND WATER RIGHTS 87, 91 (Robert E. Beck, ed., 1991); MALONEY ET AL., *supra* note 164, § 22.2(a).

For a detailed examination of the Florida law concerning navigability of submerged lands, *see* Richard Hamann & Jeff Wade, *Ordinary High Water Line Determination: Legal Issues*, 42 FLA. L. REV. 323, 383-84 (1990). *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 (1991). Return to text.

[200] *See generally The Florida Experience*, *supra* note 10, at 57-81. Return to text.

[201] *Coastal Petroleum*, 492 So. 2d at 342 (quoting State v. Gerbing, 47 So. 353, 355 (1908)); FLA. CONST. art. X, § 11. Return to text.

[202] Coastal Petroleum, 492 So. 2d at 342, (citing David L. Powell, Comment, Unfinished Business—Protecting Public Rights to State Lands From Being Lost Under Florida's Marketable Record Title Act, 13 FLA. ST. U. L. REV. 599, 606-08 (1985)). Return to text.

[203] Board of Trustees of the Internal Improvement Trust Fund v. Sand Key Assoc., 512 So. 2d 934, 936-37 (Fla. 1987). Return to text.

[204] *E.g.*, *id.* at 940; *cf.* Municipal Liquidators v. Tensch, 153 So. 2d 728, 731 (Fla. 3rd DCA 1963), *cert. denied*, 157 So. 2d 817 (Fla. 1963). Return to text.

[205] *See, e.g.,* Bonelli Cattle Co. v. Arizona, 414 U.S. 313 (1973), *overruled by* Oregon *ex. rel.* State Land Bd. v. Corvallis Sand & Gravel Co., 429 U.S. 363 (1977). Return to text.

[206] 112 So. 274 (Fla. 1927). Return to text.

[207] *Id.* at 284.

Reliction is the term applied to land that has been covered by water, but which

> has become uncovered by the imperceptible recession of the water. The doctrine of reliction is applicable where from natural causes water recedes by imperceptible degrees, and does not apply where land is reclaimed by governmental agencies as by drainage operations.

Id. at 287. Return to text.

[208] *E.g.* , State v. Florida Nat'l Properties, Inc., 338 So. 2d 13 (Fla. 1976); State v. Contemporary Land Sales, Inc., 400 So. 2d 488 (Fla. 5th DCA 1981); Padgett v. Central & So. Fla. Flood Control Dist., 178 So. 2d 900 (Fla. 2nd DCA 1965); MALONEY ET AL., *supra* note 164, § 126.4. Return to text.

[209] 512 So. 2d 934 (Fla. 1987). Return to text.

[210] *Id.* ; FLA. STAT. § 161.051 (1981). Return to text.

[211] FLA. STAT. § 161.051 (1981). Return to text.

[212] *Sand Key* , 512 So. 2d at 941. Return to text.

[213] *Id.* Return to text.

[214] *Id.* at 939. Return to text.

[215] *Id.* at 940. Return to text.

[216] *Id.* Return to text.

[217] *Id.* at 940 (citing Baumhart v. McClure, 153 N.E. 211 (Ohio Ct. App. 1926)). Return to text.

[218] Justice Ehrlich offers a vigorous dissent in *Sand Key* , arguing that "the majority disregards or misunderstands some crucial points established by over half a century of Florida case law, misconstrues the plain language of section 161.051 and grossly misinterprets *Martin v. Busch* ." Board of Trustees of the Internal Improvement Trust Fund v. Sand Key Assoc., 512 So. 2d 934, 941 (Fla. 1987). Justice Ehrlich argues that as a matter of *fact* , the consequences of drainage operations are not so immediate that they can properly be described as avulsion, and that the *Martin* rule was clearly a holding and not dicta. *Id.* at 942-45.

> If [as *Martin* held] to serve a public purpose the state through drainage operations causes water to recede, thus exposing sovereign lands, and title remains in the state, then when the state to serve a public purpose causes sovereign lands to become accreted by construction of a jetty, title to these lands, too, should remain in the state. Because this issue is critical for resolution of this case, it is my view that we should either adhere to this point of *Martin v. Busch* or else expressly overrule it, but certainly not misstate the factual underpinnings of the case which the majority opinion blatantly does. It is my opinion that *Martin v. Busch* has served us well and should be reaffirmed.

Id. at 946. The *Sand Key* majority clearly did not adopt Justice Ehrlich's view with respect to the legal effects of beachfront accretion. Justice Ehrlich's interpretation of the majority opinion is not inconsistent with this author's view that *Sand Key* neither expressly nor by implication overruled the *Martin* rule with respect to the legal consequences of inland drainage operations. Return to text.

[219] Hamann & Wade, *supra* note 199, at 383-84. Return to text.

[220] FLA. STAT. §§ 712.01-.10 (1993). Return to text.

[221] State v. Contemporary Land Sales, Inc., 400 So. 2d 488, 492 (Fla. 5th DCA 1981) (citing Odom v. Deltona Corp., 341 So. 2d 977 (Fla. 1976) and Sawyer v. Modrall, 286 So. 2d 610, 613 (Fla. 4th DCA 1973), *cert. denied*, 297 So. 2d 562 (Fla. 1974)). The Fifth District Court apparently relied upon dicta in *Odom* stating that claims of the state "to beds underlying navigable waters previously conveyed are extinguished by the [Marketable Record Title] Act." *Odom*, 341 So. 2d at 989; *see* Coastal Petroleum v. American Cyanamid, 492 So. 2d 339, 344 (Fla. 1986) ("The statements [in *Odom*] concerning the effect of MRTA on navigable waterbeds were dicta and are non-binding in the instant case inasmuch as there were no navigable waterbeds at issue in *Odom*.").

Another statutory limitation to the state sovereignty over submerged navigable lands was carved out in the Riparian Act of 1856, ch. 791, Laws of Fla. (1856) and the Butler Act of 1921, ch. 8537, Laws of Fla. (1921). Department of Natural Resources v. Industrial Plastics Tech nology, Inc., 603 So. 2d 1303 (Fla. 5th DCA 1992); *see generally*, MALONEY ET AL., *supra* note 164, § 123. Until their complete repeal by the Bulkhead Act of 1957, ch. 57-362, Laws of Fla. (1957), these acts enabled riparian owners to obtain title to submerged lands by construction of bulk heads and filling and improving them by wharves and other commercial amenities.

Industrial Plastics , 603 So. 2d at 1306-07. The Riparian Act only applied to navigable streams, bays, or harbors, and not to lakes. MALONEY ET AL., *supra* note 164, § 123.1. The Butler Act's conveyance of title was conditioned upon the riparian owner's actually making the required improvements. *Id.* at § 123.2(b); Stein v. Brown Properties, Inc., 104 So. 2d 495, 499 (Fla. 1958); Duval Eng'r. & Contracting Co. v. Sales, 77 So. 2d 431 (Fla. 1954); Holland v. Fort Pierce Fin. & Constr. Co., 27 So. 2d 76, 80 (Fla. 1946). Because these statutes deal with filling and not draining, and are contingent on the property owner's construction of commercial improvements at his own expense, they are not applicable to the recovery of submerged lands through government drainage activity. Return to text.

[222] 492 So. 2d 339 (Fla. 1987). Return to text.

[223] *Id.* at 344. The *Coastal Petroleum* court found the Court's statements in Odom v. Deltona Corp., 341 So. 2d 977 (Fla. 1976) that the MRTA extinguished claims to beds underlying navigable waters were dicta and thus irrelevant. 492 So. 2d at 344; *see supra* note 221. Return to text.

[224] State v. Contemporary Land Sales, Inc., 400 So. 2d 488, 492 (Fla. 5th DCA 1981). One commentary on *Coastal Petroleum* has observed that in its wake:

> [O]ne reaches the conclusion that the lands hundreds and even thousands of yards above the existing water level may be sovereignty land owned by the State. For those who bought the land and have for years farmed it, paid taxes on it, and even build their homes on it, this is certainly a disturbing conclusion.

Joseph W. Jacobs & Alan B. Fields, *"Save our Rivers" or "Save our Property": The Costs and Consequences of* Coastal, FLA. B.J., Jan. 1988, at 59. Return to text.

[225] 112 So. 274 (Fla. 1927). Return to text.

[226] *Id.* at 283. Return to text.

[227] *Id.* Return to text.

[228] MALONEY ET AL., *supra* note 164, § 22.2(b). Return to text.

[229] *Id.* David Guest has suggested that a more accurate figure may be 231 out of 3,000 "named" lakes. Conversation with David Guest, Managing Attorney, Sierra Club Legal Defense Fund, Florida Office. Return to text.

[230] Odom v. Deltona Corp., 341 So. 2d at 977, 988-89; MALONEY, *supra* note 164, § 22.2(b). Indeed, in the case of *Macnamara v. Kissimmee River Valley Sportsman's Assoc.*, the court concluded that the manual for the surveyors of meander lines "contained hopelessly garbled instructions," and the court disregarded the meander lines of lake Hatchineha in determining the ordinary high water mark. Macnamara v. Kissimmee River Valley Sportsman's Assoc., 19 Fla. L. Weekly D2208, D2209 (Fla. 2d DCA October 14, 1994) (citing Guest, *supra* note 199, at 222-23). Return to text.

[231] 341 So. 2d 977 (Fla. 1976). Return to text.

[232] *Id.* at 988-89. In Coastal Petroleum v. American Cyanamid, 492 So. 2d 339, 346 (Fla. 1987) the dissenting opinion by Justice Boyd interprets the majority opinion as rejecting the principle that determinations by official surveyors that water bodies were non-navigable should be presumed correct. It is unclear whether Justice Boyd correctly reads the majority, which refers to the principle that meandering creates a presumption of navigability, but not to the converse. *See* Hamann & Wade, *supra* note 199, at 339. Return to text.

[233] A final complication with respect to lands previously beneath navigable lakes is section 253.141(2), *Florida Statutes* (1993). This act provides:

> Navigable waters in this state shall not be held to extend to any permanent or transient waters in the form of so-called lakes, ponds, swamps or overflowed lands, lying over and upon areas which have heretofore been conveyed to private individuals by the United States or by the state without reservation of public rights in and to said waters.

FLA. STAT. § 253.141(2) (1993). Maloney presents a persuasive argument that this act, which was originally included in a chapter on taxation, should be construed as a definition of navigability for taxation purposes alone, and not to alter prior principles of property law which would have the lake bottom retained in the public trust. MALONEY, *supra* note 164, § 22.3(b). In 1985, in a case dealing with the applicability of section 253.141(1), *Florida Statutes*, (then § 197.228) the Florida Supreme Court adopted Maloney's interpretation, noting that "[n]o case has ever held section

197.228 applicable as property law to riparian rights. Thus we . . . hold that section 197.228 is a tax law and therefore not applicable to this case." Belvedere Development Corp. v. DOT, 476 So. 2d 649, 653 (Fla. 1985). The following year, in *Coastal Petroleum*, the Florida Supreme Court confronted a claim of entitlement to submerged lands based in part on section 197.228(2), but apparently overlooked its earlier categorical limitation of the statute. Coastal Petroleum Co. v. American Cyanamid Co., 492 So. 2d 339, 343 (Fla. 1987) (finding the act, on its face, did not apply to navigable *rivers* and the legislature did not intend to divest the state of interests which are not transferable to private entities). Under the reasoning of either *Belvedere* or *Coastal Petroleum*, it would appear that section 253.141 does not support a claim to private ownership of previously submerged lands. Return to text.

[234] One might argue that those lands have been adversely possessed by adjoining private property owners. The cases hold, however, that parties cannot adversely possess sovereign land. United States v. Vasarajs, 908 F.2d 443, 447 (9th Cir. 1990); United States v. Pappas, 814 F.2d 1342, 1343 (9th Cir. 1987). *See also* discussion of estoppel arguments, *supra* part V. It has been estimated that thousands of acres involved in the Kissimmee River restoration project are sovereign lands along the river's original meandering channel, now claimed to be the property of ranchers. Lipman & Brown, *supra* note 6, at A1. In 1987, the Trustees of the Internal Improvement Trust Fund filed and immediately dismissed a quiet title action as to lands below the ordinary high water mark of the Kissimmee River before drainage and rechanneling—some more than two miles from the river. Trustees of the Internal Improvement Trust Fund v. Latt Maxcy Corp., No. 87-2044 (Fla. 9th Cir. Ct. 1987). *See* Jacobs & Fields, *supra* note 224, at 61. The dismissal was presumably in light of a decision to proceed with acquisition of the properties. Return to text.

[235] The Florida Department of Natural Resources reportedly estimated that the cost to determine the ordinary high water line on previously submerged lands along the Kissimmee River would run between $500,000 and $1 million. Jacobs & Fields, *supra* note 242, at 62. Return to text.

[236] David Guest has recommended:

> All lakes with portions of their bed permanently exposed as a result of government-sponsored drainage projects should be identified. The Trustees [of the Internal Improvement Trust Fund] should then designate all lakes that they intend to restore to their previous levels. That process should balance equitable considerations resulting from the passage of time against environmental considerations and prospective public uses.

> All exposed lake bottoms that are not designated for restoration should be sold to the riparian land owners at prices reflecting the real value of the property rights being transferred.

Guest, *supra* note 199, at 231. Return to text.

[237] *E.g.* , United States v. 564.54 Acres of Land, More or Less, Situated in Monroe and Pike Counties, Pa., 441 U.S. 506, 511 (1979); United States v. Cors, 337 U.S. 325, 332 (1949); United States v. Miller, 317 U.S. 369, 374 (1943). Return to text.

[238] *564.54 Acres* , 441 U.S. at 511; *Miller* , 317 U.S. at 374. Return to text.

[239] *Cors* , 337 U.S. at 332.

> At times some elements included in the criterion of market value have in fairness been excluded, as for example where the property has a special value to the owner because of its adaptability to his needs or where it has a special value to the taker because of its peculiar fitness for the taker's project.

Id. Return to text.

[240] United States v. Fuller, 409 U.S. 488, 490 (1973) (citing United States v. Commodities Trading Corp., 339 U.S. 121, 124 (1950)). Return to text.

[241] *Fuller* , 409 U.S. at 492; United States v. Five Parcels of Land in Harris County, 180 F.2d 75, 78 (5th Cir. 1950), *cert. denied* , 34 U. S. 812 (1950)(dissenting opinion), and cases cited thereunder; 3 NICHOLS, THE LAW OF EMINENT DOMAIN § 8A.01 (1991). Return to text.

[242] 780 F.2d 467 (4th Cir. 1986). Return to text.

[243] 780 F.2d at 470. Return to text.

[244] *Id.* at 471. *See also* Bibb County, Ga. v. United States, 249 F.2d 228 (5th Cir. 1957) (just compensation need not include the value of housing units and other buildings mistakenly constructed on what was thought to be government land).

The *WMATA* court effectively distinguished two earlier federal decisions, which had awarded compensation for pre-condemnation improvements made on the condemned property by the government. 780 F.2d at 470-71. (distinguishing *Five*

Parcels of Land , 180 F.2d at 77, and United States v. Certain Space in Rand McNally Building, in Chicago, Cook County, Ill., 295 F.2d 381 (7th Cir. 1961). In both of those cases the government had constructed improvements during a period of occupancy of the property pursuant to leases. The holdings in those cases stemmed less from general principles of just compensation than from contract law. The courts in each instance construed the parties' intent pursuant to those leases to include retention of the benefits of the permanent improvements in the property owner, and the lease price to be based upon that intent. *Five Parcels of Land* , 180 F.2d at 77; *Certain Space* , 295 F.2d at 383-384; 780 F.2d at 470-71. Return to text.

[245] *See* United States v. Fuller, 409 U.S. 488, 492-93 ("The Government may not demand that a jury be arbitrarily precluded from considering as an element of value the proximity of a parcel to a post office building, simply because the Government at one time built the post office."); *WMATA* , 780 F.2d at 472 (finding that fair market value determinations should take into account the fact that the value of the parcel has risen because of construction of the Metro in the vicinity). Return to text.

[246] One recent environmental law text has suggested the concept of a "takings compensation offset" in precisely this context:

> If . . . the state and federal governments created thousands of acres of private agricultural land out of Florida swamps by channelizing the Kissimmee River at public expense, must they now, 30 years later, pay full dry-land market value when they decide that groundwater levels must be raised, returning some of the lands to wetlands . . . ?

ZYGMUNT J.B. PLATER, ET AL., ENVIRONMENTAL LAW AND POLICY: NATURE, LAW, AND SOCIETY 473 (1992). Return to text.

[247] *See* *Bibb* , 249 F.2d at 230. Return to text.

[248] *See* *supra* note 170. Return to text.